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MMag.phil Sabine Harrer, Bakk.phil

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0. INTRODUCTION

Video games are the medium of loss and death. It is difficult to find a video game character who does not, at some point, drop from a cliff (*Super Mario Bros*), get shot (*Space Invaders*), drowned in a pool (*The Sims*), butchered by turning blades (*Super Meat Boy*) impaled (*Tomb Raider*), attacked by spiders (*Spelunky*), or flattened by a rolling boulder (*Crash Bandicoot*). As the opposite of winning and mastery, loss and death seem to be built into the very structure of video games, and as such, be part of the joy video games have to offer.

At the same time, mechanics of loss and dying in most video games are deeply at odds with the emotional complexity of going through loss in life. First, in these games death is designed as a preliminary state, a short moment of frustration in a chain of trial and error. This is epitomised by the "game over" convention, a screen which usually also includes the option to "continue". Rather than finality, this means that death is an invitation to play on. This is starkly contrasted by cases in which a relationship is suddenly ended by the permanent demise of a loved one. One cannot bring them back to "replay" that relationship. The options one has are to ponder, commemorate and to move on as a person changed by the event.

Secondly, used as motivation to play on, loss and death tend to comment on player performance rather than portraying a game character's inner emotional life: Loss and death are signifiers for a player's need to improve and become better at the game in order to master it. They are designed to help players understand and manage their own progress rather than invite reflection about what the character's presence in the world means. Working on the right angle to prevent the fall into the bottomless pit next time demands attention and careful work. However, this work tends to be self-centred rather than about the connection to others. As opposed to this, loss and death in life are as much about the question why we care and who we care about as they are about coping and self-management.

Thirdly, on a symbolic level, loss as failure creates an immortality narrative which harks into a Western tradition of repressing death (Gorer 1960). Instead of being

allowed to occur as part of ordinary life, loss is relegated to the side, becoming an antagonist which can be battled and eventually overcome. If loss is a structural affordance of games, the binary of winning versus losing silences the complexity of attachment, death and grief as it happens in everyday life. This suggests that losing is not a suited structure to represent loss.

Although the failure paradigm of loss is ubiquitous in gaming, game designers have suggested alternatives which use the expressive possibilities of the medium more fully. One part of this dissertation will be dedicated to learning from past examples in order to understand the tools game designers have at their disposal to tackle attachment, loss and grief through their medium.

Rather than a *theory* of grief design tools, my interest is in developing an applied approach to game representation, investigating the design tools in a pragmatic game design context. This is an explorative project whose intention is threefold; understanding video game representation, understanding grief as lived experience, and understanding what designers can do to integrate both. I argue that in order to become more about life and less about management, loss has to be addressed as ordinary experience, not as mechanic opposite of winning.

Aim and Scope

My aim with this study is to mobilise game design as an expressive modality for lived grief experience. This is a multidisciplinary project, which will be carried out through a combination of textual analysis and participatory game design. The goal is to identify, and test out in practice, tools which help game designers address grievers' stories. This means that there is a dual focus on game analysis and reflective game design, which engages the representation of loss and grief in a dialogue between theory and practice.

The analytical part serves to investigate and critique what digital games have done in the past to construct dynamics of attachment, loss and grief between game characters. The empirical part applies these findings in a concrete design collaboration with grievers. With a strong focus on design, the intention is to both add to the growing understanding of video games as cultural artefacts, but also to devise a hands-on approach to grief-based game design.

Arguing that video games are cultural texts which construct a part of social reality, the first part of this thesis is dedicated to a close reading of five recent single-player games, and their handling of tragic inter-character relationships.

As a technique sitting at the margins of game studies (Keogh 2014), close reading offers three advantages: First, by going into depth with a particular example, it is possible to dissect the inner workings of a video game and subject it to rigorous investigation. This allows a deeply contextualised reflection on what makes the game function and mean. Secondly, close reading does not only go into depth with what is there, but also how a video game refers to texts and experiences outside of itself. Stressing the cross-referential function of video games, it can elaborate on the nuanced ways in which video games repurpose i.e. visual and musical history. Thirdly, close readings are interested in the way texts relate to social power. When it comes to analysing attachment, loss and grief, they focus on who is put in charge, who is given space by design, and how this relates to hegemonic power more broadly.

In this thesis, close reading is performed with two goals in mind; to identify the design devices single-player games have used in the past to construct compelling attachment, loss and grief experiences, and secondly, to point out limitations in the way these constructions have been presented.

Limiting the analysis to single-player games has been a deliberate choice to make design devices cross-comparable. Apart from featuring a tragic inter-character relationship which matters for gameplay, all games are games of progression (Juul 2005), changing across a temporal arc. This allows me to study differences and similarities in how they construct relationships, and how loss and grief are conveyed across different playing times, through different aesthetics, using different soft- and hardware.

Nevertheless, the confinement to single-player games means I can only look at a small segment of game designers' expressive possibilities. Given the novelty of grief-based game design, however, I consider this a sufficient start. As indicated in the beginning, single-player games tend to proliferate the loss as failure

paradigm, so identifying what else has been made can enrich scholars' and designers' understanding of games' representational spectrum.

Apart from understanding how devices function on a pragmatic level, I am interested in the way they weave players into "inhabitable ideologies" (Anthropy 2012). As cultural texts, video games necessarily present limited versions of social reality, make incidental (or conscious) references to established stereotypes about love and loss, and make space for some experiences while silencing others.

The five games are diverse in their genres, scopes, and aesthetics, but they all construct a social space between game characters. The kinds of attachment, loss, and grief experiences thus constructed are not only grounded in dominant assumptions about, i.e. maternal love, conjugal relationships, and romance, but hail to the player in terms of symbolic acts of inclusion and exclusion (Shaw 2014). They focus on some characters' inner lives rather than on others, indicating to players whose experience is worth exploring. I argue that critical grief-based game design requires an understanding of games' cultural and pragmatic dimensions in tandem.

Learning from game devices in past games, the second part of this thesis uses reflective game design to study the application of game design tools in a lived grief context. This is done through the video game *Jocoi*, a game developed in collaboration with the Medialogy department of the Aalborg University Copenhagen. The study includes participatory ideation work with grievers, an iterative game development process, and its evaluation.

The purpose of this case study can be divided into three more specific interests; the inclusion of grievers into game design early on, secondly, the modification of game design devices to represent personal narratives appropriately, and, thirdly, understanding the impact of grief-based game design in the participant context.

These three interests correspond with different stages of the design process. An approach to the inclusion of grievers had to be clarified early on in response to the idiosyncratic tastes and needs of the participants. What mode of participation would make them feel comfortable and empowered enough to share their stories

in a way that would also inspire game design? This was related to the question how user experience design can handle early involvement of player/expert perspectives (Lange-Nielsen et al. 2012).

Secondly, the demand for appropriate representation emerged during game design. Moving from participant inputs towards a game system requires a balancing act between participant input and design autonomy (Khaled/Vasalou 2014), and stressed the role of designer as partner in an emotional dialogue (Sengers et al. 2004, Boehner et al. 2007).

Finally, although the case study was process-oriented rather than outcome-oriented (Löwgren 1995), design ended with a concrete prototype whose meaning for the participants will be investigated: How does the game artefact matter in the lives of the grievers-participants? Do they identify with the game? What does their relationship to the game tell us about the potential uses and purposes of games about grief and loss?

Prospective Impact

The intended outcomes of this study are threefold. First, one intention is to contribute to existing game design literature by adding a participatory method for grief-based design. The method developed in this thesis accommodates co-design with people who are video game novices or outright reject "games". As I will argue, this comes with potential for innovation, since a dislike of what has been done and said issues a demand to reimagine game design practice. Apart from this, I propose grief-based game design as a method to invite new experiences and therefore new audiences into gaming.

Secondly, this goes hand in hand with the second field of contribution, which is the field of expressive art therapy. As dialogic practice between designer and griever, game design might be intra- and inter-personally validating and therefore adapted as yet another tool for expressive art therapy. While the therapeutic function of design dialogue is not directly addressed in this study, the results suggest the relevance of game design for expressive art contexts.

Thirdly, the study can be understood in terms of a theoretical contribution to the field of video game studies, and media studies more generally. It adds to the

research on video game representation, providing a perspective on games as cultural artefacts participating in the social lives of those who make and play them. By unpacking myths and proposing a descriptive, non-essentialist perspective on game-specific expression, the thesis highlights opportunities to think grief and game expression together. On a methodological level, it demonstrates the use of close reading for game analysis, underscoring the need for a detailed, contextual discussion of game devices and how they update ideas about the experiences of love and loss.

Thesis Overview

This thesis is divided into three parts. Part one introduces the theoretical and conceptual background of this study, reviewing previous work in the fields of game studies and grief scholarship as it relates to my analysis and game design approach. Part two comprises analyses of five games, *Final Fantasy VII* (1997)*, Ico* (2001)*, Passage* (2007)*, Shelter* (2013), and *Brothers* (2013). In part three, I discuss the case study, introducing methodology, participatory design workshop, game design and evaluation, respectively.

Conceptual background

Chapter 1.1 is concerned with the question of game-specific representation, and how we can understand the expressive properties of video games. The chapter will first review two pervasive myths within games and design studies which have promoted a reductionist, essentialist treatment of video games as "ergodic" (Aarseth 1997) or “interactive" (Bogost 2007) structures. Both terms refer to the fact that video games, unlike other media, require a player to participate in the action. However, they assume this *gameness* to exert a particular effect, either overriding (ergodicity myth) or revolutionising (interactivity myth) representation.

Against this reductionist view, I propose an alternative approach based on three concepts; James Newman’s (2002) ergodic continuum, Tobine Smethurts’s (2015) interreactivity, and Doris Rusch’s (2009) experiential metaphor. Newman proposes that game representation exists on an ergodic continuum; an interplay of ludic and non-ludic elements, like rules, spaces, graphics, and sounds, which collectively suture the player into the gameplay experience. This allows me to approach games as multimodal texts (i.e. music being no less important than rules or mechanics), while accounting for games’ unique participatory aspects. By

adding the element of "reactivity", Smethurst's notion of interreactivity highlights the player as active negotiator of meaning, not just as part of the game's effect. In this thesis, this helps discuss what a game objectively does to suture the player into an activity without assuming a particular persuasive effect, as the interactivity myth would propose (Shaw 2014). Finally, Rusch's concept of experiential metaphor describes the symbolic link between gameplay experience and the emotional world of the player. As resource for emotional projection, experiential metaphor addresses the personal relationship between player and game. Via experiential metaphor, players and designers can project their own attachment, loss and grief narratives to games, or design playful systems which resonate with them. This allows me to address game representation not only in terms of (non)ergodic features, but as it relates to players' and designers' feelings.

In chapter 1.2 I provide the conceptual and historical background for for my approach to attachment, loss and grief. Conceptually, this approach is situated in a constructionist discourse on grief as an idiosyncratic process of sense-making in the lives of the bereaved (Neimeyer 2009, Rosenblatt 2013). Constructionism puts the focus on the personal language of the griever, assuming that this informs best how to appropriately address grief. This allows me to ask how game design can become a modality in the sense-making of grievers, and how game aesthetics can respond to the personal themes emerging from grievers' narratives. I borrow from previous studies on expressive art in grief counselling (i.e. Thompson/ Neimeyer 2014) which have addressed artistic techniques as a way to validate lived experience. Art making is conceived in terms of a dual communication of creation and reception (Potash/Ho 2014), two moments which, I argue, are also at work when making and playing games.

Historically speaking, constructionism has been developed as an alternative to the dominant "grief work hypothesis" (Bradbury 1999) coined by Sigmund Freud in 1917 (Strachey 1961). Starting with Freud's seminal text "On Mourning and Melancholia", chapter 1.2 will first review the mechanics of grief work, and its central binary of "good grief" and "bad grief grief", reflecting on what has made this hypothesis so attractive to 20th century psychology. I will do so through a combination of literature review and reflective game design, using my prototype of *Overcoming,* a game mimicking the medical grief rhetoric of cutting bonds (Lindemann 1944, Parkes/Bowlby 1970).

Based on this critique, I will draw on social studies of grief which have pointed to the importance of social roles like motherhood, sibling identity, and spousal relationships for grief, and which have provided alternatives with concepts like secondary loss (Schut/Stroebe 1999) *inner representations* (Klass 1993) and continuing bonds (Klass et al. 1996). These are concepts which further indicate the idiosyncratic nature of grief in the lives of the bereaved.

Analysis

As mentioned, the analysis chapters discuss and critique design devices in five single-player games, looking at how they construct different loss gestalts on an ergodic spectrum.

Chapter 2.1 addresses ally loss in *Final Fantasy VII,* discussing the design devices of symbiosis, gendering, and musical theming in the construction of an eye-level attachment between protagonist Cloud and party member Aeris. I argue that these devices suture Aeris firmly into the game world and inflict a secondary loss (Stroebe/Schut 1999) when Aeris is removed from the game. This is discussed along two fan practices; the Aeris ghost glitch, and resurrection hacking, in which players seek ways to keep Aeris in the game after her loss.

In chapter 2.2 I observe how, as opposed to *FFVII*, *Ico* revolves around a vulnerable bond to the translucent androgynous Yorda, which constantly needs to be defended by the male protagonist. This attachment is constructed through spatial back and forth dynamics, the mapping of Yorda on the control scheme, and rules which define her as dependent. Gameplay is dominated by the imperative to help, so the loss of Yorda comes with a gameplay deprivation, which is reinforced through the game's depressive symbolic landscape and a literal loss of control over the bond (McDonald 2012).

Chapter 2.3 investigates how *Passage* models a variant of conjugal attachment and bereavement which defines love as process of physical incorporation: According to the hegemonic formula, the man initiates contact, the woman becomes part of the player character, and together, they become an unbreakable *union*. This union is embedded in a metaphorical world where space equals time. Ageing is represented by the couple's transition from the left towards the right, foreshadowing the moment of death. I will analyse this moment using Philippe Ariès's (1974) concepts of mors repentina and tame death, to show that female

death is staged as shocking spectacle which sets us up for the protagonist death. Furthermore, I will discuss the refusal to play after loss as a possible player response to spouse loss in terms of the ethics of melancholia.

In *Shelter's* child loss gestalt, discussed in chapter 2.4, we also first play through dependency, and the imperative to keep the badger kits alive, engaging in practices of nurturing and protection. The game uses the devices of an invisible inter-character bond to model intimacy between mother and child, age markers to contrast cuteness versus adulthood, and synaesthesia to allude to danger. The staging of loss happens through permadeath, a rule which also constructs bereavement as maternal failure. I argue that both, notions of care and loss of purpose in *Shelter,* reproduce the stereotype of the self-sacrificing mother (Kaplan 1992), dressed in a cycle of nature narrative.

In chapter 2.5, I discuss how *Brothers* represents fraternal loss along a narrative of continuing bonds (Silverman/Klass 1996), using the devices of synergy between the brothers, the mapping of both brothers on the controls, and a gender dynamic which promotes same-gender bonding. Attachment is characterised as safe beyond death; this is established through a spatial bond that is both taken for granted and allows distance between the characters. After death, the simultaneous control of both brothers is strategically used for the representation of continuing bonds: As the sole survivor, little brother is the only playable character visible, but big brother's presence is made tangible when using "his" controls.

Summing up, chapter 2.6 will conclude on the design devices and their possibilities and limitations, making suggestions for critical modification.

Case study

Part three introduces the case study, discussing the methodology I developed to design with the bereaved (chapter 3.1), a report of the ideation workshop *Trauerspiel* carried out in the summer 2014 (chapter 3.2), the way grievers' inspirational material was used for the design of the game *Jocoi* (chapter 3.3), and the evaluation of the iterative development process (chapter 3.4).

The methodological chapter discusses how I adapt Rilla Khaled's (2012) muse-based design approach to accommodate the grief narratives of four participants. I

will discuss the role of muse-based design as an experimental empathic design method cultivating a personal designer-player bond, drawing on the idiosyncratic participant context of pregnancy loss.

The following chapter reports on the *Trauerspiel* ideation workshop, during which the participants created models of their mother-child relationships, using exercises informed by Rusch (2017) and expressive art therapy (Levine 2014, Potash/Ho 2014). The ideation exercises were designed both to empower the women to share their imaginations freely with a group of peers who cared, and to inform game design constraints.

Chapter 3.3 discusses how the design team translated outcomes of the informant workshop into gameplay, providing an analysis of *Jocoi.* It will look at how the women's metaphorical landscapes developed during ideation served as emotional canvas for the development of design constraints, and how some of the devices identified earlier were modified to match the participants' wishes.

Finally, chapter 3.4 discusses the question of impact along the three design iterations of *Jocoi.* Apart from reflecting on evaluation methods such as usability and user experience testing (Bargas-Avila/Hornbæk 2011) and cultural probes (Gaver et al. 1999), this chapter addresses the role of ambiguity in grief-based design (Sengers/Gaver 2006).

Overall, the thesis moves from the broad analytical question of what games might be able to do to represent love and loss towards the specific designerly question how we can make space for it. Concluding thoughts on this question are presented in chapter 4.

PART 1

CONCEPTUAL FOUNDATIONS

1.1 VIDEO GAME REPRESENTATION

When I ask how games represent loss, grief and mourning, I assume that video games can be considered as representational form, and as cultural text available for critical media analysis. This chapter discusses what this means, how a text view on games differs from dominant perspectives in game studies, and how I will go about applying it to study representations of attachment, loss, and grief.

My approach to video game-specific representation is based on the concepts of James Newman's (2002) ergodic continuum, Tobine Smethurts's (2015) interreactivity, and Doris Rusch's (2009) experiential metaphor.

Newman suggests that instead of thinking of games in terms of a monolithic ludic form, it is more accurate to treat games as multimodal compositions. This allows me to study video games as diverse and context-specific expressions, using a descriptive, non-reductionist view. Terminologically speaking, the *ergodic continuum* is a response to the argument that video games are ergodic texts, texts which require a nontrivial effort to be traversed (Aarseth 1997). While acknowledging ergodicity as novel aspect of game-specific representation, the ergodic continuum argues that this is not the only way games construct meanings. Besides rules, mechanics and controls, game designers use a variety of non-ergodic strategies, which overlap with other media representations. This opens the floor for a non-reductionist view on game devices as interplay of different representational strategies such as mechanics, rules, controls, sounds and graphics. I consider this most useful for my purpose of identifying game design devices which compellingly model attachment, loss and mourning.

Tobine Smethurst (2015) coins interreactivity as a term which responds to the vague use of interactivity in games and design discourse. Oftentimes, interactivity is simply conflated with identification, fostering the idea that games are more persuasive and more effective than other media forms (Bogost 2009, Flanagan 2009). This is at odds with audience research suggested that players' responses to games are unpredictable and sometimes the opposite of engaged (Shaw 2014). Interreactivity recognises the fluid back and forth between game system and player. It highlights the moment of reactiveness of both as part of a cybernetic feedback loop (Smethurst 2015: 13). I suggest that interreactivity is helpful to

look at what a game actually makes players do when they interact with a game world. video games can put the players in empowering, traumatic, or helpless situations. Interreactivity highlights what can and cannot be done in (un)playable scenarios. This helps me understand representations of attachment, loss and grief not merely as devices, but as scenarios addressing a reactive, emotionally active player.

Finally, I use Rusch's (2009, 2017) notion of experiential metaphor to make sense of the emotional potential of video game devices. Experiential metaphor unpacks video game devices along the question what gameplay feels like for players. It encourages a view of video games as canvas for players' emotional projection, based on the cognitive linguistic idea that all human perception is metaphorically structured (Lakoff/Johnson 1980). Rusch has argued for experiential metaphor as personally enriching approach to gameplay representation. This continues a history of personal, analogical readings of video games, the most prominent one being Janet Murray's reading of Tetris in *Hamlet on the Holodeck* (1997). To unpack game elements metaphorically is to acknowledge the connection between game system and players' emotions and associations. Experiential metaphor allows me to study representations of loss and grief not only in terms of their (non)ergodic features, but as canvases for players' emotional projections.

In this chapter, I will first review and highlight problems with dominant myths on game-specific representation. I suggest that Newman's (2002) notion of the and Smethurst's (2015) concept of *interreactivity* offer constructive alternatives, and explain how they address games as cultural media. Based on this foundation, I will review figurative approaches to game design and introduce how I make use of Rusch's (2009) experiential metaphor concept. Finally, I discuss limitations and potentials of this textual approach.

Two myths about representation and video games

As relatively young form of representation, it is understandable that video games have been subject to myth-making. In popular discourse, myths serve to reduce complexity and break down nuanced phenomena into easily palpable categories. During the past decades, myth-making in games and design studies has served to differentiate games from other media forms, and thereby work out an "essence" of games. While such essentialism has been successful in establishing game

studies as serious research field, game essentialism also unnecessarily limits approaches to video games as cultural form.

These limitations can be understood in a threefold way. First, arguing that videogaming is an activity essentially different from other media practices rejects any similarities between games and other modes of media reception. It limits gaming to activities which are unlike, i.e. watching films or reading books, and thereby declares some aspects of video game reception irrelevant. Secondly, this formal exclusionism tends to regard games in a hierarchical relationship with other media, arguing that video games are somehow more advanced, more effective, and more sophisticated forms of representation. This view tends to exaggerate the effect of representation and forgets about the player as an inherently uncertain factor in meaning making. Thirdly, the examples used to discuss the “gameness” of video games are necessarily selective. Preferred games tend to pertain to an already established, conventional ideas about video games. Genres like skill-based platform games and strategy games are preferred to demonstrate the “core” of video games. The problem is that such genres are more likely to be associated with the taste of white cis-male audiences (Dovey/Kennedy 2006). Game scholars Dovey and Kennedy observe that the exclusion of game mechanics which do not match established ideas about games goes hand in hand with the belittling of audiences who tend to like different experiences, such as mediative or casual gameplay. One consensus seems to be that "these are not really games and their players are not *really* gamers" (2006: 37, Italics original).

The ideological productivity of myth is based three mechanics: It simplifies what games are or can be by breaking it down into binary pairs what is believed to be game-specific and what is not specific to games. Secondly, the first part of this dichotomy is declared relevant, while the second part is declared irrelevant. Thirdly, the binary just constructed is presented as natural, ahistorical, and therefore objective view on video games’ form.

In the ergodicity myth, the fact that games require work, not merely viewing, is declared the expressive essence of games. Since ergodicity is viewed in opposition to other forms of representation, it refuses to see game as part of cultural or political form of expression. Gaming is seen as innocent pleasure, as activity pursuing pure functionality.

While the ergodicity myth denies games the status of representation, the interactivity myth does the opposite; it exaggerates the effect of games, arguing that interactivity makes them by default superior to and more sophisticated than other forms of expression.

The Ergodicity Myth

The most notable difference between video games and other media is that in order to be played, video games 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. While there is no doubt that video games are indeed ergodic, the ergodic myth states that this is the only property through which video games can be meaningfully characterised.

In fact, the idea that video games are used *rather than* read, introduces a hierarchy between video games and other forms of representations. In what follows I will look at some consequences of the idea that ergodicity is more powerful than other forms of representations. The first one is that ergodicity has a corrosive effect on meaning and therefore *cannot* be anything like representation. Simply put, doing beats reading, and since we do tasks in order to complete a game, the representational effects dissolve throughout play. What remains is a "pure" form of ergodicity, while other video game features like sound and graphics pale into insignificance. Related to this is the argument that as long as we focus on an ergodic core, scholars can produce complete studies of video games. What is encouraged is a "subtraction" view on video games as texts with more and less relevant aspects. Ergodicity is considered core, while features such as sound and graphics tend to be identified as less important, notwithstanding that they are central to a video games' look and feel.

In his book *Aesthetic Theory and the Video Game* (2011) Graeme Kirkpatrick presents an example for how the ergodic myth is used in video game theory. He argues that "games need meanings" that that the "activity of playing games is powerfully corrosive to these fictions" (Kirkpatrick 2011: 9). The idea is that by becoming active as players participating in the action, ergodicity overrides what

would be otherwise be accessible as representation. However, through the act of doing - solving the puzzle, repeating a mechanical sequence - non-ergodic elements pale into insignificance and are filtered out by the player. By being constantly occupied with analysing the performance of our gameplay activity, our mind drifts from making sense of the characters, stories, and environments towards a concern with managing tasks. This idea is that video games can be understood through subtraction; "strip away the other features and you still have a game" (Kirkpatrick 2011: 42). Play is essentially about "purposeless techniques of rapid-fire puzzle-solving and managing the values attached to variables in a dynamic environment" (Kirkpatrick 2011: 44).

Kirkpatrick's corrosion argument repeats a point made earlier in the influential study *Half Real* (2005) by Jesper Juul. As the titular binary suggests, Juul separates video games into "real" and "fiction" halves. Although he argues that this dichotomy is made in order to eventually unite the halves, the proposition is still that there are some game elements that are more "real" than others. For Juul, these real elements are rules and mechanics. In fact, Juul argues that because video games without fiction can still be video games, while fiction without rules and mechanics can not, rules are more important to characterise the video game experience. He goes so far as to argue that video games can be themed and rethemed, i.e. feature different narratives, and remain intact in terms of their game experience. This is only possible if some aesthetic elements are bracketed out as irrelevant for players. In *Half Real*, these are the "half" elements,; those elements which are not immediately ergodic, and are therefore believed to slip from players' attention or interest.

Aarseth repeats this point in the context of an example which is particularly loaded in terms of its cultural significance for players; Lara Croft of the *Tomb Raider* game series (1996). Apart from a diverse fan base, Lara Croft has attracted feminist scholarship, especially around the ambivalent representation of her 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 player's lived experiences. For both authors, pleasure is a political category; the kinds of pleasure made available from playing Lara are related to existing audiences, especially women and girl players. 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 (Shaw 2014).

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). By assuming that the ergodic position ("me as a player") is more relevant than negotiations of Lara's body, Aarseth can dismiss the latter as insignificant contribution to our understanding of Tomb Raider: The Game. From the perspective of subtraction, academic or emotional discourse which does not directly refer to ergodicity is a distraction from the "real" interest of gameplay, which is about doing rather than looking or interpreting. This undermines any cultural critique of video game characters, and audio-visual features; none of these critical discourses contribute significantly to the ergodic understanding of *Tomb Raider,* the game.

Aarseth's suggestion to "see past and through" Lara is a way of denying the symbolic role of video game characters in players' lives. The ergodicity view encourages a "decency code" of looking at game characters merely in terms of a game's rules and mechanics, not in terms of their dirty role as symbolic participants in wider culture and representation.

Cultural game scholar Brendan Keogh (2014) has pointed to the absurdity of isolating Lara Croft's ergodic function from her body, arguing that this body

necessarily informs our repertoire of in-game actions. We know that Lara can shoot climb and run because she is identified as a human character. As such, she is inseparable from embodied features such as age, gender, ethnicity, race, and sexuality; features we inevitably read while we master the ergodic challenges.

We should not forget that a separation of representation and play is at its heart a liberating idea, because it moves play and games beyond the realm of everyday social pressures. In fact it promotes that "all games are created equal, and the difference between different games being 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). Taken seriously, this implies that if Lara suddenly became black, openly gay, and 80 years old, it would not impact anyone's attitude to the game one bit.

In fact, as Adrienne Shaw (2014) demonstrates, disregarding representation is a strategy widely practised by gamers who are currently at the margin of mainstream culture and readily enjoy games that hail at someone else. Discounting theme, visuals and overall narrative of a game can be empowering if it allows players to symbolically erase a straight, white cis-male power fantasy. To say that themes don't matter, here, is tantamount to saying that the player an their desires do matter. It is also a useful position against the exclusionist claim that a game cannot be enjoyed by players beyond the target audience. Applied to a larger scale of game production, it radically challenges the relevance of market segmentation. If representation does not matter it also means that games are risk-free spaces which - unlike any commercial medium before - can experiment with the portrayal of non-binary, unorthodox gender constellations and racial identities without consequence.

However, this view ignores a reality in which neither producers nor consumers of video games are particularly willing to look past the "irrelevant" aspects of their games. In open world games the likes of *The Elder Scrolls V: Skyrim* (2011), players can spend hours inside an intricate customisation menu, adjusting the eyebrow positions of their avatars in granular detail. This is just one among many examples for video games' obsession with visual realism, an obsession that translates into billion-dollar investments into the "accurate" appearance of game characters. Accuracy, necessarily, is again a matter of selection: The realism

fetishism of game characters portrayal is skewed towards a particular type of middle-aged, white masculinity, a trend which Kolan calls the Vin Dieselisation of gaming (Kolan 2011). In the YouTube video "The Face of Gaming", Rebellious Pixels (2014)[1] shows a supercut of 40 suspiciously similar-looking male game heroes, all heroes featured in video games from 2014. The supercut highlights that gaming is dominated by a particular type of masculinity, coming with the expressive repertoire of the Vin Diesel-esque action hero. After 40 repetitions, "the face" blurs into one indistinguishable blob (Hernandez 2014), it is indeed a single face of gaming. Another thing the video points to is that we consistently see the face of gaming in high resolution. Rather than unique characterisation, the industry prioritises technical performance and selective realism. The men's facial expression and motion-captured movements are rendered into the deepest power of their stubby chins, while it is not important who it is we see in front of us. Thousands of literal men-hours have been invested in this kind of visual display, while the psychodynamics, backstories, or even names of the characters are irrelevant. Altogether, the supercut challenges the idea the ludologist denial of surface, reminding us that billions are being invested in the meticulous visual grooming of digital men. No matter how sophisticated a ludological definition of play exists, and how liberating the joy of "pure" play sounds to the theorist, the games industry remains largely unimpressed and continues to invest large sums into the "irrelevant" visual details of their games.

In this light, the ergodic myth and its denial of meaning come with an aftertaste. Divorcing games from their cultural "wrapping" only works if practiced by all producers and players of games equally, and until this is the case, their interconnectedness matters.

Nevertheless, the myth has remained popular until today. One example for a recent application is Möring's (2013) adaptation of what Oli Leino (2009) has called the "gameplay condition", a concept Leino borrows from Sartre (2003). The idea is that video games have a condition which is already existent in itself, meeting the player with a kind of resistance, a kind of agency. More concretely, a gameplay condition is "a condition which is imposed by the game on the user, and which requires the user to act in certain ways in order to keep a game at play

[1] The montage "The Face of Gaming" can be found on YouTube: https://www.youtube.com/watch?v=85M3LnoHz6o

in the first place before she can do whatever she likes" (Möring 2013: 224). The authors further argues that this "existential" nature of gameplay, which imposes itself on the player, is productive in a certain way, evoking in her (sic!) what Möring calls a "transformation" from the realm of thought to the realm of praxis (ibid: 316). This transformation is imagined to set in as soon the player has understood what actions are required for a game to be played. From this moment onwards, the game stops being about its themes or characters and starts being about being played. Just like the frequent repetition of a single word eventually erases its meaning over time, the repetition of in-game action eventually puts an end to the signification process, leaving the player in a state of meditative praxis beyond the realm of reflection and meaning.

This allows Möring to make a seemingly natural distinction between the textual and the existential, repeating Aarseth's (1997) separation of reading and using. Following this dichotomy, the observation that we are "first and foremost doing space" when playing a game implies that interpretation and all things textual cannot be relevant. I would like to argue that in Möring (2013) the quasi-spiritual image of transformation has a particularly persuasive quality: It forces us to imagine interpretation and praxis as two separate places, and that in order to get from one place to the other, a certain ritual is required (the repetition of in-game action). Additionally, transformation comes with heavy connotations to the sacred and the pure, suggesting that the journey from thought to praxis involves some sort of cleansing and improvement. More colloquially, we start from the soiled, meaning-infested grounds of culture and interpretation, and move through a gameplay ritual landing us in the politically innocent, clean realm of praxis. Clear of all thought and fully immersed in "doing", we are finally free of the burden of representation.

At first sight, this "purification project" (Keogh 2014) appears fairly inclusive; after all, anything players do while playing a game could be considered a response to the existential condition of games. Even the act of wondering about a possible outcome, admiring the virtual landscape, or waiting for a cut sequence to end before playing on could be considered part of "keeping a game at play". However, this is precisely what causes problems for the formalist argumentation which Möring wants to pursue. In order to detect an essential difference between games and other media, it must insist on a clear-cut border between actions that are

somehow more gameplay-like and those which are more interpretation-like. Applied to existing games, this border turns out to be somewhat arbitrary. It means that well-established examples like *Super Mario Bros.* and *SimCity* are seen to have a gameplay condition, while autobiographical and/or metaphorical games, like *Passage* (discussed later in this thesis), cannot be considered as games, since part of their gameplay requires interpretation and draws a connection to real life contexts (Möring 2013: 224). Again, such exclusion is a formalist strategy to disallow a cultural artefact from occupying an ambiguous space as both, representation and game.

There is a price to pay for this discrimination, however. It turns the hypothetically inclusive gameplay condition into a canonising tool: "Gameplay" is treated as a kind of structure which turns the formula "act in certain ways in order to keep a game at play" into "act in ways required by certain games". As a consequence, the more removed a game appears from interpretation - the more it engages players in "doing" rather than thinking, and the less "suspect" it is of fostering interpretation, the more likely it is to be studied by formalists. This forces formalism to make a selection which perhaps is dissociated from the way games are handled by players and designers. All cultural artefacts mentioned above have been made and played as games. To make a strategic distinction that does not live up to this reality runs the danger of engaging in top-down argumentation: Formally speaking, this isn't a game, hence everyone who does treat it as such is misguided. Liberation through the gameplay condition, then, is a promise made at the cost of those players who are happily "doing" interpretation while play, unbeknownst to formalist categories.

The ergodic continuum

In conclusion, there are three ways in which the ergodic myth limits the analysis of video games. First, the idea that games are used rather than read or viewed limits the perspective on what is done when a game is played. When trying to understand the key of video game representation it is tempting to talk about it in terms of an exclusive form which is essentially different from others. It is easy to regard moments in which players are active by pressing a button somehow more pertinent to games than moments spent in front of a loading screen, a cut-scene, or inside a customisation menu. The ergodicity view distinguishes relevant from irrelevant, "real" from "decorative" features.

Nevertheless, Newman's essays also sheds light on a constructive way to challenge the myth; the *ergodic continuum*. It provides an inclusive view on ergodicity as a mode of engagement which co-exists with other modes of engagements during the activity of play. Games feature situations in which players are not directly in control of the action, while the experience is still perceived as part of play. In fact, the moments in which players are not directly in control, but wait for action to happen, or view an event they cannot influence, are 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 taking place inside several seconds of gameplay. He demonstrates that to view play on an ergodic continuum is to zoom into the microdynamics of what is actually happening, instead of focusing on a single ergodic activity.

The Interactivity myth

While the ergodicity myth claims hat video games corrode representation, the interactivity myth states the opposite, namely that video games enhance the effect of representation by means of being interactive.

The player physically holds the controls, steps into a fictional world and experiences the character's story first hand. This activity of controlling someone else's story is frequently conflated with identification (Shaw 2014). The assumption is that by controlling a character, the player identifies with their

position in the game world. If games involve a player, and thereby put the responsibility for action on their shoulders, this must mean that they identify with the responsibility imposed on them.

The idea that video games engage the player more fully than other media suggests that video games are superior cultural texts: Interactivity means that a message can not only be told or shown, but be made tangible to players. This is believed to enhance communication, and in turn, the power of game designers. Like in the ergodicity myth, much is made of the fact that the players are in the "driver's seat" of the action. However, while the ergodicity myth reduces games to the mechanics of driving, steering, and shifting gears, the interactivity myth believes that design determines where the player drives.

In other words, designers of interactive experiences possess magical persuasive powers; through interactivity, they address players directly, and can therefore achieve powerful mental, emotional, or educational effects.

Versions of this myth have been repeated in a variety of contexts, some of which will be discussed as follows. First, most well-known is Ian Bogost's (2007) concept of procedural rhetoric, which is based on the idea that sophisticated interactivity corresponds with effective impact. Secondly, a for-profit approach to this equation of form and effect is Freeman's (2004) notion of emotioneering, while an activist application, thirdly can be found in Flanagan's discussion of the charity game *Darfur is Dying* (2009). Finally, the interactivity myth pervades recent approaches towards market segmentation and targeting of new game audiences, reducing player experience to simple effects of design.

At this point, it is useful to consider the interactivity myth as update of a more dated concept from literary studies; the intentional fallacy. In the 1950s, poets Wimsatt and Beardsley (1954) discuss the intentional fallacy as the wish of authors to control the meaning of their production. Comparing the act of writing with giving birth, they argue instead that "the poem is not the critic's own and not the author's (it is detached from the author at birth and goes about the world beyond his power to intend about it or control it). The poem belongs to the public. It is embodied in language, the peculiar possession of the public, and it is about the human being, an object of public knowledge" (1954: 5).

Although made in the context of literary production, this observation can be extended to any creative practice. Wimsatt's and Beardley's observation can serve as a humbling reminder that the inclination to conflate form and effect of media is neither new nor likely to be any more true in the age of video games. As the "parents" of their creations, designers and authors are attached to their vision, but in the end it is the the audience which decides where the "child" will settle down. Remembering that the idea of singular media effects and true meaning is fallacious might be sobering, but it is also helpful to put unrealistic expectations about the impact of video games in place.

In his book *Persuasive Games* (2007) American game scholar Ian Bogost argues that by authoring arguments through processes, video games are more capable of making claims about how things work 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, video games' interactivity introduce a "vividness", which makes them "less static" as representations, and therefore more advanced as persuasive tools in comparison with other media.

Arguing that video games "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 video games take the highest rank. However, he puts into perspective that interactivity is not a safeguard for persuasion, because both game designers and scholars have still 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, we can work on our procedural literacy by reading Bogost's book, guided by his many examples.

One example is *America's Army* (2002), a first person shooter game, which is used as military recruitment tool, and has been critiqued for its glorification of armed conflict and the one-sided portrayal of US-centric honour and duty.

Critiquing the extent of detail and realism *America's Army* puts in the construction of weapons and their functionality while silencing the geopolitical implications of war through its interactivity, Bogost discusses the game's ideological effects. He believes that interactivity can coerce teenage players into the game's world view, "drawing" them into recruiting offices (2007: 79). No evidence is provided for this claim; the mere fact that America's Army uses interactive propaganda is enough to suspect this effect.

A similar conflation of form and effect is made when Bogost discusses 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 immersed in the game's moral value system. Such a passive player is required to make the point about persuasive interactivity: In order to change opinion or action through games, interactivity must mean identification.

The assumption of a direct link between game design and 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 of emotioneering 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 in emotionally interesting scenarios in order to propel sales numbers.

In a way, emotioneering claims to provide the kind of "interactive sophistication" demanded by Bogost, and suggests to "fix" problems game designers may still have with representational depth. This means that emotion is treated as feature of game functionality, which, if handled correctly, can trigger a desired effect in the player. The problems with this technical view on emotion as something which can be engineered are demonstrated best through Freeman's own example of emotioneering.

fig. 1.1 An example of emotioneering (Freeman 2004)

Freeman provides a piece of concept art which prominently stages a hyper-masculine game hero whose erect gun points at a ghastly monster to the right, while a seemingly worried woman is dangling from his other arm. According to Freeman, this heroic multitasking scenario puts the player in a place "where he or she must make tough choices", arguing that it "creates emotional depth in the player. It's similar to how, in real life, we grow emotionally by confronting difficult choices." (Freeman 2004: 5-6).

Not only does Freeman assume that audiences of different genders ("he"/"she") are equally engaged when inhabiting this male-centred power fantasy. He also suggests that a "tough" interactive choice is required to trigger a real life effect in the player. Control and interactivity are assumed to stand for emotional engagement.

From the perspective of emotioneering, this engagement is framed as universal result of design, rather than performed by a culturally situated player. Freeman's example dismantles this neutrality, however, by delivering a gendered power fantasy which depicts a male hero in charge. In game scholar Anna Anthropy's words, games always tell stories, which "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). Perhaps

Freeman's story of the white male hero facing "tough choices" communicates more about his own values than the role of emotions in video games.

While emotioneering uses the interactivity myth for profit, versions of it can also be found in discourses on charity and social change. After all, the conflation of design vision and game outcome, and the belief in "sophisticated" interactivity also suits itself for activist purposes. One example is Mary Flanagan's argument in her book *Critical Play* (2009). According to her, games "instil" ideology in a way that makes players "incidentally" learn certain values from games' structures and systems of representations which will transform their attitudes (2009: 261).

Flanagan gives one example by discussing is the educational charity game *Darfur is Dying* (2009), which was developed by a team of US design students. *DID* is a browser game in which players takes the role of a Darfurian refugee and his/her 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's Bogost's discussion of *America's Army*, 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 design intends them to become. For example, *DID* asks players to start thinking and caring about the political situation in Sudan, while they are not intended to challenge the game's selective portrayal of Darfurian lifestyle. Rather, the tasks of carrying water, running from search teams, and managing the village are supposed to immerse players into a refugee experience, which is considered an appropriate stand-in for lived experience.

What the interactivity myth conceals is that design intentions are articulated from a culturally specific place. DID's "refugee experience" emerges from the designer's imaginations of what this experience might be like. Furthermore, rather than talking to Darfurian refugees, the game talks about them in order to

raise awareness among affluent Western audiences. It is interactivity, not dialogue with those whose experiences are portrayed in the game, which is believed to achieve this work of raising awareness. By virtue of being interactive, DID is presented as media text which represents the interest of Darfurians. The problem is that this characterises Darfurians as a category which is definable in a singular way. According to game audience researcher Adrienne Shaw, this is a recipe for misrecognition and stereotyping (Shaw 2014: 20).

A recent example for the interactivity myth can be found in advocacy discourse, and the argument that reaching new game audiences requires a re-branding of interactivity. While previous examples of the myth have argued that because games are interactive they can “involve all players, not merely a subset of players” (Bogost 2007: 321), diversity advocates have argued that players outside the white, cis-male heterosexual norm are unable to identify with established games (Shaw 2014). In spite of compelling audience research suggesting that player preferences are more complicated, there has been a push towards the idea that they can be delineated by gender and sexuality (Shaw 2014: 18).

This has led to a gendered perception of interactivity, assuming that because the game industry has ignored the existence of non-male, non-straight and non-white gamers, these audiences are unable to enjoy conventional video game interaction.

One response to this misconception is the segmentation of interactivity into explicitly gendered markets. An example for this fringe marketing discourse is the label "games for girls", which hails to young female audiences through a simplistic 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 dressing up, cooking/baking, caring for young children and animals, committing to heteronormative relationships and marriage, or (hair) style and make-overs.

Apart from gender-normative theming, “girl games” feature interaction which is inherently more simple and less complex than the fast-paced, action-packed, and strategic interactions considered appropriate for boys.

At the European Game Developers Conference 2011, Dutch teen and girl game developers Verbon and Hofstede relate the principles of girl-centred game design as a focus on the "KISS" ("keep it simple and stupid") interaction (Verbon/ Hofstede 2011). They argue that in order to address girls, interactions should avoid complex control schemes, feature cuteness and rely on the use of colours such as pink and purpose.

Not only does the market segmentation of interactivity construct caricature versions of gendered taste (Shaw 2014: 90), it also marginalises audiences which are already at the fringe of video games.

This is where ergodicity and interactivity myths converge. Both talk about game representation in abstract terms while referring to specific sets of rules and mechanics. Mechanics outside this established norm tend to be excluded, following a consensus that "these are not really games and their players are not *really* gamers" (Dovey/Kennedy 2006: 37, Italics original). Audience research shows that players are inclined agree with this sentiment.

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 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 an "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 video game 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 Julia's relationship to Kratos, the epic action hero of *God of War II* (2007). Instead of identifying with Kratos' emotional struggle through states of betrayal and revenge, Julia states 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

Interactivity seems too vague a category to describe the back and forth between video games and players (Shaw 2014). 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 of interreactivity, which stresses that what is going on in game-specific representation is reaction. 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 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 player do or cannot do when responding to a game system, and the changes evoked in system and player. Smethurst elaborates that

> these changes are not only emotional or intellectual—as with a novel—but strategic, intentional, and physical. In response to

> the game's challenges, the player will activate alternative mechanics; they may opt for a different route through a level, a different weapon loadout, or different conversation options. In order to put these strategies in motion, players will push buttons on their controller in a different way; the wires between controller and console will transmit different sequences of electronic pulses; the program running the game will access 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 hand to match the on-screen action. Interreactivity accounts for this as well: the feedback loop between player and game is mediated by technology, 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).

I suggest that this view on game-specific representation compelling counters the interactivity myth and its intentional fallacy. Game design devices can provide spaces to engage players into a cybernetic circuit. But the outcomes of this engagement and the kind of change effected on both the system and the player are unpredictable.

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 non-reactivity and control loss are part of interreactivity or not (I argue they necessarily are), the concept encourages a focus on the active player and their strategies when reacting to a game system. They may use interreactivity for

the sake of disengaged play, corrosive play, or, as I suggest next, as sites for emotional projection and personal meaning making.

Close-Reading Emotions: 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 video games can be unpacked as "symbolic dramas" waiting to be subject to personal projection, Murray writes that the game represent "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 blocs to overcrowded schedules, making sense of the game through a 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 way to access players' personal meaning is derived from Lakoff and Johnson's (1980) cognitive linguistic approach. It assumes that our understanding of experience is grounded in a metaphorical[2] 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, this suggests that we can both discover experiential links to our life through play, and that 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, and the cybernetic back and forth interreactivity puts them through in symbolically. 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

[2] The cognitive linguistic tradition uses the term metaphor in its broad sense, as the process of substituting a concept by another concept (Kurz 2009). Other than in a literary tradition, it does not differentiate between metaphor, metonymy, synecdoche and analogy. When Lakoff and Johnson (1980) and Rusch and Begy talk about experiential metaphor and metaphorical projection, they usually refer to analogy, since several meanings of a game exist at once. Within a literary tradition, metaphor strictly refers to a conceptual substitution with a single linguistic outcome

> 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 exhileration 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 unpacks functionality in terms of a personal analogy. She thereby provides a perspective on the game which adds a personal dimension to interpretation.

As we have seen before in Julia's approach to the same game, reducing Kratos to being a "thing on screen", metaphorical projection is not always part of the playing process. As Rusch contends, it "provide[s] an *additional* interpretative cue that helps game comprehension along" (2009: np, my Italics). In other words, metaphorical projection is a technique which is available to players to whom finding experiential parallels between game system and life system makes sense.

For the purpose of this thesis, experiential metaphor helps to highlight the intersection between lived experience and game experience. As analysis tool it is

interested in the kind of projection game worlds offer the embodied player. By minute description of what is going on in the micro dynamics of hand-eye movement, occupation of in-game space, timing, and narrative, it detects experiential gestalts; experience clusters which resonate with psychodynamics of the player. Experiential metaphor thus leverages the ergodic continuum and interreactivity in terms of their analogies to real world attachment, loss and grief dynamics.

Application and Limitations

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

How have video games 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 they used to engage players emotionally? And what do they offer as sites for experiential projection?

I will ask these questions in the context of inter-character relationships, treating game characters as canvas for emotional projection. Social psychologist and game developer Katherine Isbister has suggested that game characters can be unpacked as symbolic proxy of the player (Isbister 2006). She argues that "[i]f a character has a particular social role, the player will unconsciously apply [their] own cultural expectations for fulfilling that role" (2006: 55). Players are competent to read stereotypes, and "apply what they have learned from other media" (2009: 61). In other words, video games do not only create metaphorical links between experiential structures, they also literally draw on social roles and stereotypes players may know from their lives.

Looking at the way two characters share space can also be a way of studying how games deal with the notion of intimacy (Isbister 2006: 162). This is why Isbister encourages designers to practice a "thinking between bodies" when it comes to character creation. Game designers should not focus on the making of one character in isolation, but as part of a social space, where social grouping, touch,

attitude, and identity is possible. Another device constructing this social space is character movement. She mentions *Ico* as an example in which the player character's and non player character's clumsy movements add to a sense of vulnerability; that the characters stumble trough space, rather than moving gracefully, characterises them as lost and confused rather than in control of the situation (2006: 174). Isbister suggests that how we move through the world, as the "drivers" inhabiting the character-vehicle, has consequences for the notion of relationships forming with and around us. If games present us with "strong social personae" (212) they involve players in imagining and filling in the blanks for what kind of relationship is going on. Some of these considerations, although intended for game design audiences, are relevant for analysis as well. After all, investigating bodies in space can give us an idea of the kind of attachment constructed between characters: Is the attachment contested, or taken for granted, risky or safe? Answers to such questions may emerge through metaphorical readings of characters in space.

Apart from studying what is happening in terms of inter-character relationships and their tragic love and loss stories, the three devices also serve to look at what is left absent, what is not represented, or actively silenced. As mentioned before, video games also draw on stereotypes and clichés to make human experience and social life tangible through gameplay. Game scholars Mia Consalvo and Nathan Dutton (2006) remind us that game analysis should consider not only the options offered, but also the options not offered by a game to make sense of games' ideological implications. That way, the researcher can find out whether the game perpetuates traditional stereotypes. For instance, the idea that "good" mothers put their children first, and themselves second is proliferated in the proposition of *Shelter* (2013), to be discussed later in this thesis. When I look at the way games make inter-character relationships inhabitable, therefore, it will be necessary to look at whose experience it is the game revolves around, how it is limited, and what else is silenced. Since all representations are limited, there will be critical absences in who we are invited to "feel with", and what is assumed about experiences of i.e. falling in love, having a fraternal relationship, or being a bereaved mother.

There are necessarily limitations to this kind of textual analysis. One claim repeatedly made against textual analysis is that it ignores the dimensions of

production, consumption, and the “nasty down below” of social life (Hall 1996: 264, Kovala 2002: 3). I agree with Hall’s assertion that "textuality is never enough” (Hall 1996: 271) and that studies on representation should look at what media practices do in the world (Grossberg 1998: 75).

Ethnographic scholarship on social dynamics in virtual worlds has repeatedly shown that representation does not end with game design (Shaw 2014, Boellstorff et al. 2012). By providing (non)ergodic, interreactive architectures, video games create sites which are inhabited by social players. 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 (cf. 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 video game representation. My selection of analysis samples is confined to five games which match the criteria of featuring an important relationship between two characters, which 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.

Finally, my selection of video games is confined to five examples 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. Another possible approach 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 amount of hours into a game before they lose a favoured item, lose progress due to a technical error, or lose an elaborately designed avatar. Other players use gaming to work through their personal traumas (Hernandez 2014). In

this study I am more explicitly interested in representation, and the question how game designers can build fictional scenarios of attachment and loss. This is why I look at games which feature the loss of a character who has been objectively significant for another in-game character, typically the player character. The three concepts of ergodic continuum, interreactivity and experiential metaphors are considered useful to a nuanced understanding of design devices in the context of lived experience.

1.2 UNDERSTANDING LOSS AND GRIEF

Introduction

This chapter provides the conceptual and historical context from which I explore attachment, loss and grief as subjects in games and game design. A dominant view on grief is that it is a universal process, a kind of "work", which can be performed more or less successfully, and which ends in the final emotional separation from an object of love. As opposed to this view, the constructionist grief approach I prefer in this thesis looks at the language of grievers as the source of understanding grief experience situationally. Rather than a universal process, constructionism argues that grief is what grievers identify as such, based on their idiosyncratic situation and language. This pushes the authority of knowledge from scholar to experience expert. What is important is the grievers' imagination and the narratives and meanings it elicits. I argue that this can be a rich resource for game analysis as well as design.

The constructionist view on grief is a relatively recent, contested view, which, in the Western world, competes with a stage-based view on"grief work". In the first part of the chapter I will trace the history of this view, starting with what is commonly identified as the birth hour of Western grief discourse - Sigmund Freud's essay “On Mourning and Melancholia” (1917, Strachey 1961). In it, Freud famously discusses the “mechanics”of grief, providing a binary economic rationale for attachment and loss, which served as conceptual template for grief-related psychology discourse during the 20th century. My literary review first serves to understand the attractiveness of this model, both for medical discourse, and also, potentially, for game design. Grief work uses a core mechanic of relinquishing bonds with the bereaved, which can be mastered or failed. It can therefore be accurately represented through a win/lose state.

However, what I will argue in this chapter is that in spite of its attractiveness for clinical and game design discourse, grief work fails to acknowledge grief as complex experience in people's lives. Reducing grievers' experiences to a single set of mechanics, it disallows a perspective on grief as situated, embodied phenomenon. While the model is informed by the clinical observations of psychopathologists, these sources tend to be silenced in the process of model

making. To make this point, I use a combination of literature review of 20th century psychotherapeutic discourse and reflective game design: *Overcoming*[3] is a game through which I translate grief work rhetoric into a game system, and thereby shed light on the limitations of grief work discourse.

In the second section, I look at three social roles which have been argued to impact the grief process in different ways: Spouse, maternal, and sibling roles. There are two reasons to look at these particular examples. First, they appear later during the analysis. Secondly, they demonstrate how rather than universal, experiences of grief are diverse and situated, and a unified model unlikely to represent all grief types similarly. I introduce three concepts that have been used in the grief literature to understand different needs of widows, bereaved parents and siblings; "secondary loss" (Stroebe/Schut 1999), "inner representations" (Klass 1993), and "continuing bonds" (Silverman/Klass 1996).

Finally, I will look at the constructionist grief approach and how it values imagination of grieves as a source for knowing about grief. Rather than limited by medical expertise, constructionism gives voices to those who experience grief. This is also done through artistic processes, a process which expressive art therapist Stephen Levine (2014) calls *poiesis*. Finding appropriate expressions for the way grief feels like, and sharing them with people who care. Poiesis is a process of meaning reconstruction which, I argue, can be extended to the context of gameplay and design. The project is finding gameplay expressions which appropriately tackle what it is like to be in a situation. This is a perspective on grief and game design which has not been explored prior to this research.

Origins: *On Mourning and Melancholia*

It was difficult to find an academic publication on the subject of loss and grief that did not contain a reference to Sigmund Freud's essay *On Mourning and Melancholia* from 1917. This essay is acclaimed as the beginning of medical grief studies (at least to Western minds), holding the status as the first attempt to systematise and bring to public attention grief as a core experience in human life.

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[3] a prototype of *Overcoming* is currently available for MacOS on: https://enibolas.itch.io/overcoming

Overall, the essay comes with the ambition to capture the emotional mechanics in the psyche of a mourner. It revolves around the question what happens when an individual is confronted with the irreversible separation from a loved object (according to Freud this can be a person, thing, or abstraction) and seeks to explain possible outcomes of this separation through a universalist model. The two titular terms - mourning and melancholia - stand for a desirable and a pathological outcome of grief work.

The difference is that in "normal" mourning, grief work is used constructively to "work through" the loss and distance oneself from the lost object. Freud describes the mechanics of this process as follows:

> Reality-testing has shown that the loved object no longer exists, and it proceeds to demand that all libido shall be withdrawn from its attachments to that object. This demand arouses understandable opposition - it is a matter of general observation that people never willingly abandon a libidinal position, not even, indeed, when a substitute is already beckoning to them. This opposition can be so intense that a turning away from reality takes place and a clinging to the object through the medium of a hallucinatory wishful psychosis. Normally, respect for reality gains the day. Nevertheless its orders cannot be obeyed at once. They are carried out bit by bit, a great expense of time and cathectic energy, and in the meantime the existence of the lost object is psychically prolonged (Freud 1917/Strachey 1961 234-4).

The economics of "normal grief" that Freud describes here come with a set of assumptions. First, the notion of "reality-testing" treats emotional attachment as a fact whose presence or absence in the life of the mourner can be determined ("tested") with certainty. On the one hand, this acknowledges that the deep connection someone might have to the deceased may feel as grave as a "fact". This does not account for the fact that relationships are oftentimes emotionally ambivalent, oscillating between feelings commitment and rejection. Freud considers this limitation later in his discussion of melancholia, but for the

situation of “normal” mourning, he assumes a conscious, known, and non-ambivalent object of love.

Secondly, the absence of this object of love naturally issues a request. That request is to withdraw emotional energy from the love connection in order to overcome it. What is assumed, then, is that loss comes with a particular order, a demand that shapes the requirements for normal grief by pushing the griever towards letting go. This push is met by “natural” resistance and protest in the mourner, since “people never willingly abandon a libidinal position”. In conclusion, there is a particular set of emotional turmoil, a particular kind of “painful unpleasure [that] is taken as a matter of course by us. The fact is, however, that when the work of mourning is completed the ego becomes free and uninhibited again” (Strachey 1961: 245). In other words, there is a point of overcoming, a win state, which distinguishes successful from unsuccessful grief work. This moment of completion equals emotional freedom.

Mourning, if done right, is an act of liberation from a cathectic involvement that, through loss, has turned unfeasible. The mourner can turn themselves into a “winner” by cutting bonds with what is inevitably lost. In Freud’s words, mourning “impels the ego to give up the object by declaring the object to be dead and offering the ego the inducement of continuing to live” (257). The libido to the object is disparaged, denigrated, “kill[ed]” (ibid).

This imperative of separation presents the grief situation as a zero-sum game: The mourner can choose between survival of the lost object or survival of the self. Attachment is something that has sutured the self into a certain libidinal place, a place that can only support and benefit the ego if the loved object is alive. Upon the loved one’s death, the self has an unpopular choice: It either stays in place and “rots” with the lost object, or it painfully cuts itself out of the attachment to find a more appropriate position for a new libidinal commitment. Only by “undoing” previous bonds can the mourner’s position be re-crafted, re-invented, re-immersed in new attachments. There is a particular procedure that is supposed to underly any process of overcoming: There is the ego, the lost object, and a separation that is first met with difficulty but eventually carried out.

What, then if a bereaved individual felt no sense of protest or resistance against the demand of separation - what if, instead, such a demand was denied, and with it the "success" of overcoming? There is the possibility to fail the process of overcoming, in which case Freud speaks of melancholia. In melancholia the mourner does not give up on the lost object, but instead turns against themselves in reproach and accusation, what Freud calls a "disturbance of self-regard" (Strachey 1961: 244). This, Freud speculates, may be the result of identification with the lost object: The mourner might have had a "strong fixation" on the loved object that induced them to incorporate it. What happens is that the object falls on the ego "like a shadow" (ibid: 249) which enables the mourner to henceforth bemoan an "ego-loss" instead of giving up the lost object. What may be possible causes for this incorporation, this clinging on to the lost object? Freud suspects that the reason might be a complex, ambivalent relationship to the loved lost person:

> In melancholia, accordingly, countless separate struggles are carried on over the object, in which hate and love contend with each other; the one seeks to detach the libido from the object, the other to maintain this position of the libido against the assault [...]. In mourning, too, the efforts to detach the libido are made in this same system; but in it nothing hinders these processes from proceeding along the normal path... (ibid: 256-7).

Incorporated in the self, the melancholic love object is thus kept safe from the "normal path" of abandonment. The question here is why the melancholic mourner feels the need to protect and protract the lost object and deny a "normal path". Freud's speculation is that this is related to ambiguity of the loved object in melancholia. Either the cause or the quality of the loss may be unconscious to the mourner - "hate and love contend with each other". The "object has not perhaps actually died, but has been lost as an object of love" (ibid: 245), such as in a loved person who has become unavailable as a fried or lover. By conserving the lost object, the mourner can continue to make sense of this ambiguity. This sense-making, as Freud observes - and this is what compels him to think of melancholia as a pathological state - largely consists of self-reproach and "heightened self-

criticism" (247). "In the clinical picture of melancholia, dissatisfaction with the ego on moral grounds is the most outstanding feature" (ibid: 248).

Freud concludes that this self-hate is a result of the mourner's identification with the lost object. In fact, "the self-reproaches are reproaches against a loved object which have been shifted away from it on to the patient's own ego" (248). Melancholia "behaves like an open wound, drawing to itself cathectic energies [...] from all directions, and emptying the ego until it is totally impoverished." (ibid: 253). Compared to the constructive grief work of normal mourning, melancholia is a destructive emptying of the ego. Instead of the cathectic release which we find in healthy "grief work" and "overcoming", the outcome of melancholic suffering is a self-tormenting consumption of the ego.

To conclude, what Freud aims at with On Mourning and Melancholia is an economic understanding of grief. The two trajectories of "good" grief and "bad" grief seem to explain comprehensively where attachment energy flows after the loss of a loved one. Some critics have put into perspective that this economic view is at odds with what we know about Freud's personal approach to becoming a bereaved father and grandfather (Silverman/Klass 1996: 6, Clewell 2004, Mallon 2007). It is documented that the loss of his daughter and grandson shook him profoundly (Silverman/Klass 1996: 6), and when his friend Ludwig Biswang lost his son, Freud wrote:

> Although we know after such a loss the acute state of mourning will subside, we also know we shall remain inconsolable and will never find a substitute. No matter what may fill the gap, even if it be filled completely, it nevertheless remains something else. And, actually this is how it should be, it is the only way of perpetuating that love which we do not want to relinquish. (Freud 1961: 239, as quoted in Silverman/Klass 1996: 6).

Grief scholars Silverman and Klass have argued that the dissonance between Freud's medical view and his own life is typical for a modernist reductionist discourse of emotion. Freud's economic view on "good grief" and "bad grief" is part of a 20th century zeitgeist of understanding human experience through rationalisation. According to sociologist Zygmund Bauman, one of modernity's

core features is the conviction that order and knowledge can be achieved "through the ultimate taming of the inherently chaotic natural forces and by systematic, and ruthless if need be, execution of a scientifically conceived, rational plan" (Baumann 1991: 29).

Freud's own ruthlessly systematic grief work economy is partly turned against himself, in that it "dismisses the subjective experiences of people and minimises the importance of relationships in the human experience because these are difficult to study in [the] model" (Silverman/Klass 1996: 21). The mourning/melancholia dichotomy does not only mark the beginning of Western psychological grief discourse, but it also provides a template during the medicalisation of grief after Freud.

Models to Grieve By: The Medicalisation of Grief

By tracing some moments in the history of medicalisation, I intend to show how the grief work proposition has been updated, refined, and become part of a paradigm that still dominates contemporary grief discourse. I will look at examples from 20th century psychological discourse in terms of three questions. First, what has been proposed in terms of the tasks which need to be achieved to perform good grief? Secondly, how has "grief work" been quantified in terms of the time from loss event towards overcoming. Thirdly, what roles does the grief therapist or counsellor take in the process of overcoming?

When it comes to these questions, Melanie Klein's notion of restoration in 1940, and Erich Lindemann's interpretation of grief work in 1944 have significantly shaped clinical and theoretical approaches to loss; Lindemann as a traumatologist who first associated grief with the disorder complex of Post-Traumatic Stress Disorder (PTSD) and Melanie Klein as predecessor of John Bowlby's attachment theory (1981), an approach that is still central in grief counselling and psychotherapeutic discourse today (Stroebe/Schut 1999, Shear/Shair 2005).

Much of Melanie Klein's clinical work relies on Freud's early mourning/melancholia dichotomy of "good" and "bad" grief. Her focus is on the specific tasks a griever needs to accomplish to achieve overcoming. This is best illustrated in an example from Klein's essay "Mourning and its Relation to

Manic-Depressive States" (1940/1994), in which she describes Mrs. A's struggles with the sudden death of her six year old son. In order to come to terms with this loss, Klein assumes that Mrs. A has to go through an elaborate process of rearranging furniture and sorting out letters of the deceased. Klein interprets these activities as expressions of hypercathexis. The excess engagement with the lost son urges Mrs. A to perform specific activities confirming a connection with the deceased. However, this connection is believed to be only temporary, and eventually ceases as Mrs. A's grieving process comes to an end, arriving at a restored sense of self.

Three things are worth noticing here. First, Klein's task-orientation allows her to address activities that are specific to Mrs. A's grief context: Furniture shifting and letter sorting are Mrs. A's personal way of continuing bonds with the deceased, but might not be appropriate for other grievers. According to Klein, grief experience refers back to attachment patterns during early childhood, which provides the griever with different resources to resolve grief. Secondly, a resolution of grief and the finality of grieving rituals are taken for granted for the healthy griever. This means that engagement with the deceased is supposed to end grief and make space for new attachments. Klein observes that Mrs. A's furniture shifting and letter sorting activities take a "good end" once the relationship is ordered and the futureless memory of Mrs. A's son "safe inside" (Klein 1994: 106). This means that the engagement with the bond to the deceased is only considered healthy as long as it leads to the relinquishing thereof. Thirdly, Klein suggests the role of the psychotherapist to be a guiding instance towards this goal of overcoming. She assumes that grief work tasks can be performed in more and less efficient ways, and that efficiency is desirable.

While Klein focuses on the griever's idiosyncratic tasks, American traumatologist Erich Lindemann adds the factor of efficiency (Lindemann 1944). In his influential essay "Symptomatology and Management of Acute Grief" (1944) he observes that "the duration of grief reaction seems to depend upon the success with which a person does the grief work, namely, emancipation from the bondage to the deceased, readjustment to the environment in which the deceased is missing, and the formation of new relationships" (ibid: 190). This passage highlights two aspects of medicalisation which continue to matter in clinical discourse. First, efficiency is expressed

through time and the "duration of grief". Lindemann assumes that the faster grief can be concluded, the more successful the griever.

Like in Klein, the psychotherapist is a facilitator of this overcoming project, but Lindemann is more explicit in pointing to the therapists' role in expediting, accelerating grief. At a different point, he even provides an estimation of the therapy sessions required to take a normal griever from loss event to overcoming; "eight to ten interviews" (ibid: 199). Secondly, the passage hints at a stage-based view on overcoming: First, one cuts the bond, secondly, one adjusts to the new situation, and thirdly, one forms new relationships. These two principles of time-as-success, and overcoming-as-sequence have been formative for the pathologisation of grief in clinical discourse. This is not surprising, given the clarity in which they delineate a "normal" grief condition. In fact, a time-based concept of grief allows the objective measuring of grief work, and the productivity of grief counselling.

This quantification of grief success allows the measuring of grief deviating from the average grief period. According to Lindemann, such *morbid* grief experiences can be divided into three categories; *absent grief, inhibited grief,* or *chronic grief* (Stroebe/Schut 1999: 217). Contemporary grief scholars like George Bonanno and Stacey Kaltmann (2001) point to the ethical problems with these categories: In order to diagnose *absent grief,* for instance, one would have to assume the griever's displayed emotions are not enough, or "untypical". In order to do so, the therapist must approach the clients' expressions with suspicion, as they might hide their *real* grief reaction. A similar attitude is required for the diagnosis of chronic grief, where the therapist decides what an appropriate time window is and that engagement with the deceased has taken too long. In both cases, Lindemann writes, "proper psychiatric management of grief reactions may prevent prolonged and serious alterations in the patient's social adjustment, as well as potential medical disease" (Lindemann 1944: 198). This means that not only can the psychiatrist measure and distinguish "good grief" from "bad grief"; medical intervention is seen as tool which can prevent "unsuccessful" grieving behaviour in time.

Grief as pathological category has continued to matter in a theoretical and clinical post-war era. A significant contribution was made by John Bowlby, a

student of Melanie Klein, whose opus magnum *Attachment and Loss* (1969) popularised the notion of grief work widely (Parkes 2010). Like Klein, Bowlby underscores the importance of childhood bonds when it comes to loss in adult life. However, he updates the psychoanalytic approach to attachment, adding a neurobiological angle. During childhood attachment, Bowlby argues, a person develops "working models representing principal features of the world about him and of himself as an agent in it. Such working models determine his expectations and forecast and provide him with tools for constructing plans of action" (Bowlby 1973: 140).

During later life, these models mediate instances of love and loss in later life, imposing an unconscious rule set which Bowlby believes determines how we connect to others and cope with loss. From his Darwinist-biologist perspective, loss events always threaten established working models, and the individual's psychosocial survival. Healthy grief work, then, constitutes the successful "unlearning" of the attachment to the deceased (Davies 2004: 509). This unlearning is imagined as distinct behavioural pattern drawing on Lindemann's grief work principles. The first phase is characterised by yearning and searching for the deceased, followed by a time of disorganization and despair, which is believed to be eventually replaced by some degree of reorganisation (cf. Davis 2004: 508, Field et al 2005). Throughout this process, attachment theory speaks of "continuing bonds" with the deceased (Field et al 2005, Stroebe/ Schut 1999), since confrontation and involvement with the lost object is regarded essential for its overcoming.

While Lindemann already suggested a particular "timeline" of grief, Bowlby's attachment model marks the advent of stage-phase thinking. This trend continued in Bowlby's collaboration with grief therapist Collin Murray Parkes during the 1960s and 70s. As part of a clinical study on widows and their grief reactions, Parkes found that *numbness* was an important phase preceding yearning (Parkes 2010: 11, Bowlby/Parkes 1970).

Following Bowlby and Parkes' example, a number of stage-based grief models have been proposed, which divide the grief process into a distinct number of stages (Kübler-Ross 1970), processes (Rando 1984, Stroebe/Schut 1999) tracks (Rubin 1999), and tasks (Worden 1982). These models present us with the

paradox of arguing for universality through diversity and inconsistency, which the following selection of models illustrates.

The lowest number of stages has been proposed by Rubin's (1999) so-called Two-Track Model of grief, which understands grief as wedged between individual needs (track I) and relationship to the deceased (track II). The model stresses grief as ambivalent activity; one can be anxious on a track I level, while simultaneously holding positive affect vis-a-vis the deceased on track II. Another bifocal model of grief is Stroebe's and Schut's Dual-Process Model (1999). Reiterating much of Rubin's cross-disciplinary concern, grieving activities can be "loss-oriented" and "restoration-oriented".

The number three plays a role in models drawing closely on Lindemann and Bowlby. Therese Rando (1984) suggests that the stages decathexis, development of a new relationship with the deceased, and formation of a new identity can be divided by two, turning the three stages into six "R-processes" of mourning: recognising the loss, reacting to the separation, recollecting, relinquishing attachments, readjusting, and reinvesting in life. When it comes to numbers, Rando thus presents the most elaborate grieving system. As clinical psychologists Bonanno and Kaltman (2001) point out, however, the more elaborate the system, the more likely it is to be "rife with assumptions about what grieving should be, or how bereaved individuals should feel, and how long they should feel it" (2001: np).

Four has been the main number in William Worden's tasks of mourning (1982). This model is inspired by Worden's observations from clinical practice, and it suggests a series of activities which must be mastered by any mourner. These are, respectively, (1) acceptance of the reality of the loss (2) working through the pain of grief (3) adjusting to an environment in which the deceased is missing and lastly (4) withdrawing emotional energy and reinvesting in another relationship. While these tasks might be relevant to specific situations, like conjugal bereavement, their appropriateness has been challenged for other contexts, such as parental grief (Rando 1986, Davies 2004).

Finally, the quest for a universal grief model culminates in Elisabeth Kübler-Ross' (1970) Five Stages of Grief, which seems to have become most engrained

in our Western collective memory (Wambach 1985). The famous stages of denial, anger, bargaining, depression, and eventually acceptance are widely applied in terms of a "complete" picture of successful grief work, both by mourners and care takers (Wambach 1985, Wortman/Silver 1980, Izod/Dovalis 2014). Meanwhile, Kübler-Ross's ambition with *On Death and Dying* was more global; as part of the hospice movement in the 1970s, her interest was in deinstitutionalising and demedicalising death and grief by making the discourse accessible to the "lay" mourner. Kübler-Ross thus takes an ambivalent stance between medical authority and popular discourse, drawing from a range of clinical examples, while radically breaking with the medical tradition of silencing the bereaved. Her model is based on interviews with the dying, but by translating those interviews into the five-stage model, she reduces people's rich narratives to a formula. The unfortunate consequence is that the voices of people are used to once again to perform medical authority. Precisely the claim that the model is people-centred has given rise to abuse, such as in a case where a nurses expected their patients to die in the "correct order" (Wortman and Silver 1980: 332). Furthermore, the complaints of a mourner "in the anger stage" can be conveniently can be conveniently labelled, and might not be taken in regard to their situational feelings.

Overall, there are two sides to the reductionist perception of grief as stage-based process proposed in these models. On the one hand, their universality claim is deeply at odds with the inconsistent numbers of phases presented in different models. "Acceptance", for instance, is the first task in Worden's Four Tasks of Mourning (1982) while it is the last stage in Kübler-Ross's Five Stages of Grief (1970). Secondly, however, such dissonances seem to matter in theory more than in practice. There is evidence that some mourners welcome grief models as orientation points, or sign that their experience is acknowledged by "science" (Wambach 1985, Bradbury 1999). This is even the case if grief models are appropriated and divert from clinical sources. As a widow in Mary Bradbury's (1999) ethnographic study *Representations of Death* reports: "I mean, a friend of mine told me there are three stages you go through when you lose someone. First of all you can't believe it, then you go through a stage of anger and then in the end you accept it. But, I certainly haven't got to anger yet (Christine)." (Bradbury 1999: 172).

Making sense of one's own experience involves a process of interpretation, and stage models of grief are widely used as templates assisting this interpretative work. Bradbury compares this work of handing down knowledge on grief to undergoing an apprenticeship (Bradbury 1999: 171). The problem with grief models seems to be that once a griever's story diverges from the model, the authority of the model exerts pressure to change one's narrative.

Wambach (1985) observed that the "stages of grief" were treated as fact, not merely as a possible way of looking at grief by attendants of a self-help group in Arizona. An important part of the self-help group work involved "teaching" new members about grief work. She concludes that where such templates are supportive, they can provide orientation and security for those who suffer a loss. However, there also exist concerns that if they fail, they might have the opposite effect, in terms of a disenfranchisement of grief (Doka 2002, Attig 2004). By striving for universality, models necessarily exclude the social and cultural dimensions of loss (Bradbury 1999: 171). This limits the insights grief models can give into the lived struggles and meanings of grievers.

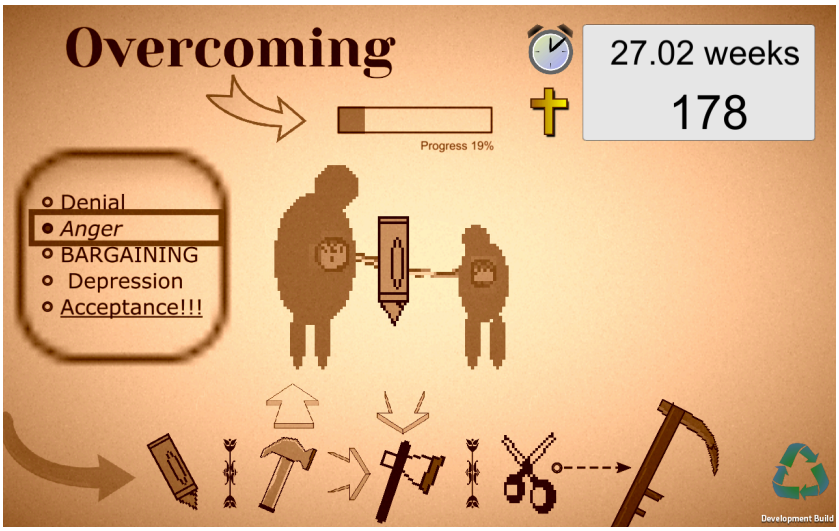

fig. 2.1: *Overcoming*

***Overcoming*: The Game**

The propositions and limitations of the grief work hypothesis should now be clear in theory, but how do they feel in practice? With the design of *Overcoming,* I intend to demonstrate two things. First, translating aspects of

the grief work hypothesis into gameplay, it demonstrates what it feels like to perform a universal task of grief work in the most effective way, measured on a normal/pathological binary . In theoretical writing, the experiential quality of relinquishing bonds with the deceased can be concealed by the use of technical terms like *decathexis, liberation, or emancipation*. In a game system, the requirement of relinquishing the bond, and "killing" the libido can be expressed through a stressful task.

Secondly, by translating the mourning/melancholia binary into a win/lose system, *Overcoming* demonstrate how well the grief work hypothesis and its assumptions suits itself for game design. To game designers this may suggest that grief itself can be accurately be expressed through a simple win/lose economy. To show the problems with this idea, *Overcoming* emphasises the generic, arbitrary nature of grief work as stressful task which follows an extrinsically imposed sequence.

Overcoming translates three features of grief work into gameplay; the idea that there is a universal task which is carried out to relinquish bonds with a deceased, secondly that normal grief work happens inside of a time window which can be quantified, and thirdly, that the success of a grief process is evaluated from the outside, by the grief scholar or therapist.

In the centre of the screen, we see two characters connected by a bond. This is the bond between griever and deceased which must be relinquished as the main objective of the game. Below the characters, we find an array of tools which can be selected and clicked repeatedly on the bond to sever it. As a simple, mundane mechanic, clicking refers to the universal nature of grief work as generic activity that does not differ among different grief situations.

The list on the left indicates which stage the griever is in, determining which tool must be used to grieve correctly. Through trial and error, the player must find out how tools and stages correspond. The graphics are supposed to be informative and confusing at once. They represent the inconsistency through which grief models communicate their universality claims.

The progress bar indicates how far the griever is along in the process of overcoming. An empty progress bar indicates the beginning of grief work, while a full bar is the moment the game is won. The full progress bar as signifier for success is a design element we are used to in 21st digital culture, but it also captures the 20th century modernist approach to grief. A progress bar pushes attention to the goal of completion, and in *Overcoming* claims that emotional work can be quantified.

The two items referring directly to *Overcoming*'s quantification of grief are the timer and the score count on the right side of the screen. The game starts at the moment of loss and counts up the weeks until the point of overcoming or failure. While time moves up consistently, the scoring criteria are hidden from the player. This invisible layer of the computer code in the background stands for the implied knowledge of the mental health expert who determines when grief work is successful and at which point a griever's reaction can count as normal.

There is a second end, which is reached when the player-griever does not do the grief work successfully, and fails to fill the progress bar in time. Instead of filling, the progress bar stays empty, while a dark shadow of depression envelops the characters, which "empties" and "consumes" the ego until it finally disappears.

My review of psychopathological grief literature and the mechanics of *Overcoming* illuminate a central flaw of the grief work hypothesis. All authors imply attachment as important prerequisite of grief, but the abstract nature of the model keeps them from explaining what this attachment means in the lives of grievers. In *Overcoming*, the bond between deceased and bereaved is the central element on screen, and the object players must engage with to win the game. And yet the player is never told why they should care about the bond in the first place, reflecting the level of abstraction by which the grief work hypothesis treats attachment.

Attachment is most generally referred to as cathexis, a universal energy currency which must be a converted from the purpose of fostering attachment to fostering overcoming. In *Overcoming*, clicking on the bond is a dull

experience because it is an activity dissociated from the reason for attachment. This suggests that in order to understand grief as lived experience, we need to understand the embodied features of attachment first. Why do the bereaved care? To find out, one first step is to look at the social roles which mediate attachment.

Grief and social roles

In her qualitative study on widows's representations of death, Bradbury (1999: 171) has pointed out that medical grief work models are often based on widow-only samples, without crediting this bereavement context (one example is Parkes/Bowlby 1970 mentioned earlier). Apart from suspicion about implied misogyny in grief research - is pathological grief framed as female experience?- this raises the need to consider social contexts of grief.

In fact, if viewed in the context of spousal bereavement, the grief work hypothesis and its imperative of cutting bonds can offer new perspectives. Grief scholars who have studied spouse loss in context (Stroebe/Schut 1999) have suggested that one culture specific challenge of becoming a widow/er is to develop new roles and skills to take over tasks their lost partner had carried out prior to the loss. Stroebe and Schut observe that in long-time relationships, partners might have developed patterns of collaboration, or a division of roles which, upon bereavement, has to be "unlearned" by the surviving spouse. Bereaved spouses then do not only have to adjust to their new identity as "widow" or "widower", they also often have to cope with and make up for the loss of their partner's contribution. Stroebe and Schut (1999) refer to this phenomenon as secondary loss, arguing that "[w]hen a loved one dies, not only is there grief for the deceased person, one also has to adjust to substantial changes that are secondary consequences of loss" (Stroebe/Schut 1999: 214).

Secondary loss in spousal bereavement can explain the emphasis on overcoming in medical and stage-based models. In the context of spousal loss, the withdrawal of emotional energy and reinvestment in a new skill or relationship can be a matter of survival. Furthermore, by stressing the need to move on, the medical grief model gives permission to seek new romantic engagements or learn new skills instead of feeling guilt for emotionally abandoning their lost partners. In such situations, overcoming and decathexis

might be an appropriate narrative, since it destigmatises the yearning for intimacy after loss.

There are bereavement situations in which the opposite is the case, however, and the decathexis imperative becomes a cynical or impossible requirement. Among others, grief scholars Klass (1993) and Davies (2004) have argued that this is the case in parental bereavement. According to them, losing a child matches poorly the requirements of restoration and overcoming which can empower widowers. As Foster (2011) has pointed out, losing a child, more than the event itself, comprises the symbolic loss of a future. In order to overcome the loss of their child, parents would have to overcome their own futures; an impossible requirement (see also Rando 1984).

A common view on parental loss is in terms of the “worst loss”, as suggested in Rosof’s popular self-help book by the same title (Rosof 1994). I suggest that this is a discursive effect of the dominant grief work model and its decathexis paradigm. If death and loss are seen as occasion to abandon the libidinal position, child loss can only be seen as break with the "laws of nature”; old dies before young (Davies 2004), and “normal” overcoming is impossible. The only way the medical model can respond is through the language of pathologisation. Grief counsellors agree that parental bereavement is a risk factor for grief disorders like “complicated grief” (Rando 1993, Shear/Shear 2005, Parkes 2010).

Rather than cutting bonds with their children, grief anthropologist Dennis Klass (1993) has observed that parents prefer to continue bonds with their deceased children by means of so-called *inner representations*. Based on a long-term observation of The Compassionate Friends meetings, Klass argues that inner representations of their dead child help parents maintain their roles as confident parents after bereavement, and integrate the reality of loss in their world views. He writes: “The inner representation of the child supports the sense of competence for it helps the self experience a sense of continuity. This sense of personal competence is especially important in traumatic deaths, for parents are often troubled by questions of the preventability of the child’s death” (1993: 261). Opposed to the paradigm of relinquishing bonds, Klass argues that the solace and competence of a surviving parent is nurtured through

an ongoing investment in the bond, symbolically, by keeping in touch with images of the lost child. In fact, as Stroebe and Schut (1999) observe, bereaved parents have to compensate for the absence of identity categories acknowledging their bereavement. While spouses become widows, there is no identity label for bereaved parents. This also suggests that they continue to be parents, owning a future in which they stay connected to their children, symbolically.

Irrespective of its meaning in the lives of parents, child loss upsets the order of the conventional grief formula, providing a context for breaking out of the ordinary. Klass' notion of inner representations subverts the idea of overcoming, changing the "verb" of grief work from relinquishing to imagining. Instead of cutting bonds, the suggestion is that grievers actively draw connections to the deceased, transforming and building their relationships. While from the vantage point of the medical binary this sounds like a radical proposition, the suggestion is in fact to break with the violent implications of the grief model. Instead of killing libidinal commitment, the idea is to change its quality and material. This new material is called imagination and representation.

There is a pragmatic factor in cultivating inner representations of the dead child, namely making the deceased speakable as ordinary family or collective member and thereby preventing the need to glorify or repress the past. Different family members might cultivate different inner representations of the deceased, and if they are given space as part of social reality, the memory of the deceased can be kept alive in faceted and ambiguous ways.

In a comparative study of parental and sibling bereavement, Foster et al. (2011), have observed that sibling responses to loss are more ambivalent than those of parents' due to the complex roles siblings may take during socialisation. The authors argue that the connection to a sibling is a unique and powerful bond expected to span a lifetime. Siblings can be perceived as friends, protectors, allies, but also as antagonist or competitors (see also Davies 1999). This has consequences for the way children connect - or refuse to connect - with their deceased siblings.

According to the study, siblings, too, invest in continuing bonds, but this connection is experienced as less comforting than for parents. If siblings remember the dead they often do so by means of linking objects, like clothes, pictures, and other objects reminding them of the siblings' place in their world. These objects can create a notion of the sibling's ongoing presence, such as in the case where a sibling decides to sleep in the dead's clothes to feel their presence and get a sense of "hugging her" (Foster et al. 2011: 434).

On the other hand, the study also draws on examples where the sense of a dead sibling's presence was experienced as uncomfortable and undesirable. Foster et al. conclude that sibling relationships can be strong but not necessarily in a positive way, and that, therefore, particularities of the relationship must be considered when it comes to making sense of this loss: Was the sibling a protector, a friend, an antagonist, or all of the above?

I have addressed spousal, parental and sibling loss in particular because these are experiences which will emerge as themes throughout the video game analysis in the following chapters. I suggest that the notions of secondary loss (Stroebe/Schut 1999), inner representations (Klass 1993) and continuing bonds (Silverman/Klass 1996) are suited concepts to approach some aspects of attachment, loss and grief experiences in these games. Arguably, it is not enough to reduce grief experiences to categories like parental, spousal or sibling identity. What is required is an intersectional approach which accounts for the cultural position of the griever: Who grieves over whom, and how?

A constructionist approach towards grief

More recently, grief scholars and counsellors have proposed that understanding grief experience is a matter of looking at grievers' language and the way they construct narratives of attachment and bereavement. changes the paradigm from a prescriptive to descriptive understanding of grief, an approach which psychologist and grief councillor Robert A Neimeyer has called a constructionist perspective (Neimeyer 1998, 2000, 2009). Constructionism argues that loss is an undoing of previously stable assumptions about the self and others; it challenges salient "narratives of self" upon which the individual used to rely (see also Thompson 2003). If loss challenges the cohesion of self-narration, grief narratives are a way of exploring new meanings. Rather than serving

narrative templates from the outside, like the modernist grief work model would suggest, constructionism locates the source for cohesion in the griever's own imagination.

Social scientist and grief scholar Paul Rosenblatt (2013) observes that from a cognitive linguistic perspective, the grief work hypothesis also already proposes a particular imagination of grief. It constructs it in terms of an "ontological metaphor" (i.e. Lakoff/Johnson 1980), a discrete thing. He elaborates: "We talk about all sorts of nonconcrete things, as grief, as though they were concrete, discrete, and bounded like solid things are, like a piano or a cup, but grief is not a discrete object. It is a sociolinguistic construction" (Rosenblatt 2013: 83).

While the ontological metaphor of grief has fed into the binary of normal/ pathological demanded by modernity and medicalisation, Rosenblatt argues that it has done little to "understand and help" the bereaved. This is because it silences what he calls the "hyphenated feeling/thought" of the bereaved, the felt constellation of a specific grief situation (2013: 83). He proposes that grief scholars start paying attention to this constellation by looking at the metaphors the grievers design themselves to make sense of their experience. The kind of images, symbols, verbs used to describe a loss or grief situation indicate both priorities in the grievers' lives, and appropriate ways of addressing it as bystanders, therapists, and scholars. Discussing the symbol of the hole, which he identifies as recurring element in griever's loss narratives, Rosenblatt demonstrates how metaphors can be critically engaged by therapists and scholars:

> Is a hole bond? That seems paradoxical, but maybe missing someone is always a connection to that person. Is a hole something to fill in? The message I hear with the hole metaphor is often, "This will always be with me, and it should be". But then the hole metaphor may seem to imply something that needs repair or filling in or a loss of self that needs to be repaired (Rosenblatt 2013: 84).

This passage illustrates how the engagement with the self-chosen language of the bereaved pushes attention to the griever's personal needs. Their feelings

become a legitimate starting point for making sense of the grief experience. Rather than analysing how the griever's experience would fit inside an externally created template, experience is taken seriously as expert source from which appropriate self-narratives emerge. Secondly, this means that rather than moving away from the griever and their lived concerns in order to arrive at a solid *true* meaning of grief, meaning is assumed to be located in the griever's capacity to formulate appropriate metaphors. Thirdly, this enables understandings of grief in the plural, acknowledging the complex nature of emotion as a multimodal and multidimensional process floating between different thoughts and feelings.

Perhaps most importantly, constructionism re-envisions the role of therapists and scholar from grief experts to empathetic listeners. This is discussed by clinical psychiatrist Laurence Kirmayer in his essay *Failure of Imagination* (2003). Kirmayer asks what happens when the self-narratives of clients clash with the expectations of the therapist. "If the story is incoherent, implausible or unordered to us, what will we do?" (Kirmayer 2007: 363). The modernist view of grief work would reduce such incoherence to a sign of defectiveness and "slot various experiences into categories as symptoms", practicing a "hermeneutics of suspicion" (Kirmayer 2007: 377). Kirmayer contends that this rarely happens consciously, but is the work of prolific media stereotypes of "good" overcoming to which neither grievers nor clinical staff are entirely immune (2007: 378). The task of a clinician, however, would be to battle engrained assumptions and *imagine* grief along with the visions of their client. This requires the professional to expand the "vision of the possible", listen to client's "stories and their potential truths" and thereby give authority, depth and texture to such an account (ibid: 369). In other words, one of the core competences of grief therapists and scholars is the ability to listen and give space to the expressions that be.

Grief and the Expressive Arts

This new focus on the imaginations of grievers, and the ethics of professional listening has been related to the process of art making. Expressive art counsellor Barbara Thompson suggests that loss puts the bereaved in a "state of liminality" (Thompson 2003), the undoing of certainty and stability, which can serve as inspirational context for art making. She argues that imagination, the

crafting of symbols, allows lived experience to become real. As demonstrated in their anthology *Grief and the Expressive Arts* (2014) Neimeyer and Thompson, this can happen through diverse artistic modalities; dance, singing, poetry, painting, drawing.

In her approach to music therapy, Joy Berger stresses music as a catalyst for memories, which can be constructively tapped during grief to "call forth deeply personal, relevant emotions, stories, and meanings connected with one's loss" (Berger 2014: 38). Inviting grievers to recall their relationships with the deceased by listening to a music piece, the idea is to "hear and resonate with the person's current mourning, here" and to "create a new musical memory that can be revisited in this person's future ahead" (ibid). Berger points to the importance of practicing shared music listening with an affirmative, open and empathetic attitude. This creates "a safe conduit for the person's vulnerable emotions and rich life stories to emerge" (ibid).

Shanee Stepakoff's "graphopoetic process" is a technique which uses poetry to reflect on the experiences of the bereaved. First, a poem is selected by the facilitator in response to the client's or group's themes. After letting the poem sink in, the group share their responses, engaging aspects of the poem in respect to their own experience, and emerging feelings. Secondly, the group are invited to write in silence, which, according to Stepakoff is a powerful way to reveal things which would not be expressed through speaking. This writing exercise can take a structured form. The author points out that poetic structure can give useful constraints to help participants contain feelings that would otherwise be difficult to process (2014: 68). The graphopoetic process concludes with the opportunity to read one's poems out loud, and receive respectful attention by facilitator and group members.

When it comes to performance and theatre, Breffni McGuiness' storymaking method engages grief experience from a "safe distance" of fictional scenarios. To do so, clients are invited to divide a blank sheet of paper into six boxes and create a six-part story. It features, first, a main character and a setting, secondly a task that the main character has to perform, thirdly, some helpful factors to complete the task, fourthly, some difficulties threatening the completion of the tasks, next, the climax of the story, and finally, the ending of the story. The

clients are then encouraged to tell the story, including as much detail as possible.

The idea is that “[a]lthough the client is encouraged to create a story that is not to do with their own life, it will inevitably reflect inner material” (113). The author argues that this inner material can be engaged by drawing on the client’s metaphors, and new perspectives on experience can be explored without addressing the client’s emotions directly. Furthermore, “clients can also change how the story is enacted, and if desired, can take on different roles in it” (ibid). This engages body and imagination at the same time, providing room for projection both mentally and physically. McGuiness also reflects on the way this technique has been received by clients, observing that some "struggle with thoughts of not being creative” (2014: 114). There might be “fears of not being good at drawing, or of feeling pressure to produce or perform” (ibid), which have to be engaged sensitively.

Ilene Serlin’s “kinaesthetic imagining” approach to grief is based on the idea that emotions are often stuck in the body, and that through “feeling the feelings in the body” healing can occur (2014: 116). This technique is carried out through a three-part structure, during which participants first immerse themselves in their bodies through breathing exercises, secondly, explore individual, dyadic and group movements and their themes, and finally wind down and make meaning of their bodily movements. This process is improvisational, but guided by a facilitator who “acts as choreographer, constantly weaving in material from the group to form a live, organic, meaningful tapestry” (119). Rather than through a concrete story, this technique explores the immediate language of movement, and its meaning potential for the bereaved.

Finally, an example for visual arts techniques is given in Leigh Davies’ article *Drawing on Metaphor* (2014). Davies argues that “metaphorical imagery allows holding on and letting go, grieving and creating, to occur simultaneously” (2014: 146). She argues that possibilities for meaning creation do not only exist in the content of visual images, but in their artistic elements, materials, lines, colours, and textures. This means that the grievers’ treatment of art materials can be an important resource for communication: “If, for

example, a client talks about the colours of the materials available, repeatedly reorganises them and repackages them but doesn't use them, the therapist might become fascinated with the colours" (2014: 146). This underscores, once again, the importance of the facilitator's attitude, and the willingness to invite with curiosity what is there. A visual image may first not be ready to be addressed consciously, "yet it exists and can be dealt with if and when the time is right" (ibid).When this is the case, the metaphorical image can be explored "to see what it can do" (147). By doing this, Davies argues, the facilitator allows the griever to treat reflections in their own terms; "to take what is timely and helpful and to leave the rest" (ibid).

While inviting meaning making through different registers, these techniques have one thing in common. They provide what Jordan Potash and Rainbow T. H. Ho (2014) call a "dual communication", on the intrapersonal (within the griever) and the interpersonal level (2014: 29). First, intrapersonal validation emerges from the process of making, and the conscious focus on lived experience through what Stephen Levine calls *poiesis*. Poiesis is "the basic activity of shaping in response to what is given" (2014: 14). By immersing participants in verbal and non-verbal expressions, the techniques above demonstrate that poiesis can be initiated in different ways. In the centre of poiesis is a search for appropriate language through introspection. The outcome of this introspective process is engaged carefully and respectfully.

Secondly, rather than a work requiring critique, the art object is an opportunity to observe and resonate with the griever's feelings. This moment of interpersonal validation by viewers who care, has been consistently emphasised in constructionist literature (Neimeyer 1998, Thompson 2003, Potash/Ho 2014, McGuiness 2014, Berger 2014, Stepakoff 2014). These can be therapists, family, group members or a general public (Potash and Ho 2014: 28). There are two features in particular, which predestine art objects as mediators for interpersonal validation.

First, Levine (2014) has pointed out that art objects differ from ordinary things around us in terms of their *madeness,* and their freedom from utility (Levine (2014: 15). According to Levine, "the work of art does not disappear in its utility; rather, it demands to be seen for its own sake. As a result, it can have a

powerful effect on us, an effect that we call an aesthetic response, the experience of having our breath taken away and feeling moved or touched" (ibid). This in itself, he argues, can spark reflection about ways to live on after loss.

Secondly, Potash and Ho point to the memorialising function of art as objects with the ability to transcend time. The outcome of art making "reminds the viewer of the original event long after it has passed, allowing for continuity and immortality. This last point extends art from personally meaningful object to intergenerational symbol" (ibid: 29). They observe that especially in contexts of shared art making, group members are eager to form connections reinforcing validation and mutual acknowledgement.

Video game design as expressive art technique?

I would like to argue that the dual communication principle of the expressive arts can be usefully applied to practices of game design and play. Making a video game involves many of the expressive modalities discussed in Neimeyer and Thompson's *Expressive Art* volume; visual arts, music, writing, and spatial choreographies, for example. This allows opportunities for personal expression and intrapersonal reflection. This suggests that searching for a gameplay metaphor can be an opportunity to develop one's idiosyncratic grief language, just as can dance, poetry and story making. While game making includes different already explored expressive art techniques, it would also introduce the new feature of interreactivtiy, and the composite, dynamic nature of the ergodic continuum. Designing gameplay requires a focus on performance, possibilities, and atmospheres. This means that when grief is modelled through gameplay, the metaphors used become dynamic. To make them dynamic, the griever-designer would have to explore their image in-depth, "to see what it can do" (Davies 2014: 147).

Revisiting Rosenblatt's metaphor of the hole in in the context of game design would allow us to explore the "holeness" of grief in terms of dynamics, mechanics, and aesthetics: Whether the hole is a bond or something to be filled, or repair have different experiential meanings, whose appropriateness can be directly explored through play. In other words, rather than abstract, the hole

metaphor would become concrete and tangible through an inhabitable playful space.

The benefits of both crafting and experiencing games which are based on grievers' metaphors can be seen in extension of the expressive art process unpacking what images "can do" to make us understand grief (Davies 2014). Unlike other artistic methods, however, game design engages metaphors through multiple modalities at once; rules, haptics, graphics and sounds. While this adds complexity to the ways a metaphor can be engaged, it is possible to accommodate different priorities of grievers. For instance, if the hole metaphor evokes strong aural associations while the visual aspect is less pronounced, they might also choose an audio-based mechanic for their game. As composite texts with different levels of ergodicity, games can model different sensory aspects of what is currently most important for the griever. Even if the "rules" of grief are hidden for the griever, this hiddenness itself can become part of the game system, i.e. by designing a floating experience which allows players to soar through space like the griever does.

Like other art objects, the outcome of such a design process can invite validation through interpersonal communication; reception (Potash/Ho 2014, Levine 2014). In a video game context reception happens through play, and therefore through an embodied participation in the interreactive scenarios (Smethurst 2015) representing the emotional landscapes of grievers. Compared to other modalities of reception, play invites the receiver to become part of a symbolic world, allowing an embodied connection to personal contents and themes. To acknowledge a griever's expressions by playing their game, one participates in their emotional landscapes and symbolically goes a piece of the way with them.

Expressive art literature reminds us of the non-judgmental attitude that would be required to "play with" the bereaved (i.e. Thompson 2003). If play is a receptive modality with the same advantages of empathetic listening and viewing, it means that gameplay is there to be experienced rather than critiqued or assessed. However, in analogy to compassionate listening (Berger 2014) and compassionate viewing (Davies 2014), compassionate play may also provide a starting point for respectful observations. Stepakoff (2014) points to the method

of the *respectful echo,* the quiet repetition of a phrase or element that resonated for the listener. Similar to this, players may investigate a gameplay element which is particularly evocative for them: What does it mean, and what feelings does it evoke? To engage with these feelings may be a way of honouring not only the feelings of the bereaved, but the effort done to give structure to their experience.

The way I connect metaphor and game design is significantly inspired by Rusch's approach to experiential metaphor and emotional projection discussed in the preceding chapter. Far from being merely a tool for analysis, Rusch proposes experiential metaphor as a compelling tool to both interpret and create games in personal ways. While metaphorical interpretation unpacks gameplay in terms of its personal meaning for the player, this process is reversed in metaphorical game design. Rusch demonstrates this in games like *Akrasia* (2008)*, Elude* (2010)*,* and *Soteria* (2016), all of which address complex human experiences; addiction, depression and anxiety.

However, there are ways in which an expressive art approach used in this thesis challenges Rusch's cognitive linguistic approach to metaphor. First, Rusch assumes that "[a]ll of our inner, emotional processes are abstract. We only have direct access to their symptoms - we can see someone go red in the face, frown, or smile - but what goes on inside remains hidden from direct observation" (2016: 48). Emotion here is assumed to be a kind of information which resides in abstract properties "hidden" inside the experiencer. This view coincides with the "informational paradigm" paradigm, which according to HCI researchers Kirsten Boehner and colleagues (2007) dominates affective computer discourse. They observe that "affect is often seen as another kind of information - discrete units or states internal to an individual that can be transmitted in a loss-free manner from people to computational systems and back" (2007: 59).

As opposed to this, they propose an "interactional view" on emotion as "culturally grounded, dynamically experienced, and to some degree constructed in action and interaction" (ibid). Applied to Rusch's example above, this would mean that going red in the face, frowning, or smiling *are* already parts of an emotional interaction, rather than mere symptoms of an emotional hidden

inside. Furthermore, rather than neutral bystanders, we would look at the person's face from a culturally grounded stance of interaction, interpretation. Seen from this perspective, emotional processes are concrete rather than abstract, since they emerge from a social space between people whose sense of touch, feel, sight etc. impacts the quality of emotion felt inside. This also means, emotional processes are ordinary in that they reside in the small acts of everyday life; the choice of a bereaved sibling to sleep in clothes of the bereaved (Foster 2011); Mrs. A's letter sorting activities after the death of her son (Klein 1940).

I suggest that the interactional paradigm of emotion is not only suited to explore game design in the context of expressive art therapy, where the focus is on collective expression and communication (Levine 2014, Potash/Ho 2014). It also responds to Rusch's (2017) idea that lived experience can be made tangible through game design, while resolving a central paradox: Identifying structural aspects of experience and turning them into a formalised game system is a process of abstraction (Rusch 2017: 52). But if experiences are abstract to begin with, we would turn one abstract concept ("trust", "grief") into another one (the game). At what point has the emotion been more than a concept, an idea? When has it touched people's experience?

An example for this paradox has been delivered earlier with *Overcoming*: This game translates one idea - a rational economic *view* on experience - into another abstract domain of the high score game system. This matches poorly Rusch's ambition to use game design as tool to "become conscious of our experiences" (Rusch 2017: 47). I suggest that following through with this ambition requires attention to what *concretely* forms in the messy, embodied realm of lived experience, and leaving aside abstract ideas of experience which are necessarily constructions by someone else.

There is another aspect in which my constructionist approach diverts from Rusch's, namely the stance taken on the expressiveness of rules and mechanics. Rusch writes that "[i]f you intend to make a game about something, it is not enough to have a fuzzy sense of what that something is. You cannot be vague when you are defining rules and behaviour. Rules are not like words that can tiptoe around an idea, hint at it, and make allusions. Rules lay down the law.

They define how it is." (Rusch 2017: 48). While I agree that rules lay down the law, there is no reason to believe that laws pin down meaning. The same game system can be unpacked in different ways by different players who might or might not experience the game as vague and fuzzy space. What I have suggested in the previous chapter is that games are texts on an ergodic spectrum, and that their representational features are less different from previous media than game scholars have often thought.

From a constructionist perspective, rules *are* like words in that they define possibilities for communication, which can be used in different ways. As Rusch contends, "as game designers, we do not create experiences. We create structural frameworks, possibility spaces that *enable* experiences" (2017: 52).

While abstract ideas of experience (the grief hypothesis included) come with neatly structured features which can be further rationalised into laws of game design, embodied experience is more messy, and may put illogical, dream-like associations in people's minds. It might be the uncertainty of possibility spaces and their multimodal expressive possibilities which suits game design as a way to make space for lived grief experience.

PART 2
ANALYSIS

2.0 ATTACHMENT, LOSS AND GRIEF IN FIVE VIDEO GAMES

Throughout the following chapters, I provide close readings of five video games and how they have used (non)ergodic devices and interreactivity to portray attachment, loss and grief between two characters.

My focus during analysis is on the construction of interesting inter-character dynamics which invite players to make emotional projections. By understanding these dynamics in context, my aim is to identify design devices which can expand game designers' repertoire of tackling attachment and loss experiences in compelling ways.

Based on the idea that video games are composite text which unfold their meanings in a multimodal, interreactive way, I suggest that design devices 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. Video games can create tangible scenarios for inter-character bonding, but they often do so 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 understand 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 comprise 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.

As explored in the previous chapter, attachment, loss and grief are closely connected, which is why I study them as part of the "symbolic drama" (Murray 1997) of grief. The chapters are structurally similar, discussing constructions of attachment, loss and grief in consecutive order.

Since attachment matters to understand loss and grief qualities, all analysis chapters start on how games construct mechanisms and aesthetics of 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.

Secondly, I will look at how games have introduced the loss a character, and thereby break with established patterns of care. 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 the character's acute loss reaction. Levels of player involvement are games' unique expressive possibilities in making different nuances of loss tangible.

Thirdly, what techniques have games used to represent the aftermath of loss. Some games characterise the loss of an important NPC or co-protagonist as a matter of pattern loss. That established bonding rituals are no longer available can evoke a sense of deprivation or change the meaning of one's actions. In this section I am interested both in the reaction of a surviving player characters to their loss experience, and coping strategies developed by players. Shedding light on practices of interpretation, hacking and modding, I show how in-game representations have been unpacked as analogies of lived experience.

In an attempt to apply a non-hierarchical, descriptive view on video games as ergodic continuum, I treat expressive devices such as controls, visuals and sounds side by side. Apart from including a broad spectrum of ergodic and non-ergodic devices, there is a strategic reason for doing so. The ergodic continuum allows me to consider social aspects such as markers of age and gender as design devices,

too. Whether consciously or not, game designers make use of these markers to structure parts of their game experience and encourage interpretations.

For instance, a player may feel invited to role-play as a mother, because of the way a game represents adult in contrast to children's bodies (*Shelter*). Encouraging such projections, rather than culturally innocent, is rife with socio-political implications. By classifying behaviours, appearances, skills (and the lack thereof) as gender- or age-specific, video games make claims about love and grief which are necessarily limited. Since design devices impact each other, it is important to look at how these dynamics play out in context: Whose love and loss experiences do they address? Whose view are players encouraged to take by stepping into the game? And how do the games marginalise other, equally possible, experiences?

These questions are relevant if we assume that video games do not operate in isolation from culture, but through their constructions, make references to images, stories and stereotypes which have existed before them. The themes of friendship, marriage, sibling identity and motherhood they portray have a representational history, which is useful to consider when it comes to making conscious choices about game design.

2.1 OF LIMIT BREAKS AND GHOST GLITCHES: LOSING AERIS IN *FINAL FANTASY VII*

"When you lose someone you loved very much you feel this big empty space and think, "If I had known this was coming I would have done things differently". These are feelings I wanted to arouse in the players with Aeris's death relatively early in the game".

- Yoshinori Kitase, scenario writer, *Edge* 2003

Introduction

As one of the first game titles to be released for the PlayStation console in 1997, *Final Fantasy VII* (*FFVII*) is the most well-known and commercially successful games to be discussed here. It is currently available for Windows, the PlayStation Network, on PC Digital Download, and since 2014 as mobile app, which has sold over 11 million copies until 2015[4]. Two decades after its release, *FFVII* holds a nostalgic status among first time PlayStation audiences, with bloggers reminding us why the game is "so memorable" (LeBoef 2012), and why it is among "the saddest games that will actually make you cry" (GamesRadar 2016).

This indicates that the games' central loss moment, the impalement of non-player character (NPC) Aeris Gainsborough has become a collective grief moment in game culture. In this chapter I will investigate this both looking at how the NPC-player character relationship is designed, and how players have responded to the loss of Aeris. Since *FFVII* stretches over a playing time of +100 hours, and includes a plethora of gameplay activities (including cross-dressing and breeding birds), I restrict my focus to three design devices which I find crucial in anchoring Aeris tightly into the game world, and side by side with main character Cloud Strife. These devices are the RPG battle mechanics, in particular the mechanic of the Limit Break which models each characters' emotional response under stress. Secondly, I address character appearance, which characterises Cloud and Aeris as heteronormative love interests. Finally, the device of musical theming serves to firmly anchor the presence of Aeris in the game world.

[4] Online source: https://itunes.apple.com/gb/app/final-fantasy-vii/id1021566244

After discussing these strategies and their dramatic effects during the "bonding" phase of *FFVII*, I will explore their implications for the time during and after Aeris's impalement scene. The death scene is tightly scripted, featuring a non-ergodic high-definition cut scene of Aeris's impalement, and an immediately following boss battle, in which the loss of Aeris is felt on the level of gameplay. I argue that this boss battle evokes what grief scholars Stroebe and Schut (1999) call "secondary loss", a loss experienced through the consequences of a loved one's death.

In the last part of the chapter, I will look at two fan discourses which show that rather than "cutting bonds" with Aeris and moving on with the game, players have put effort into cultivating a connection with her after death. Such practices of what grief researcher Klass calls "continuing bonds" (Klass 1993) are found in players' sightings of the *Aeris Ghost,* a glitch which displays a fragile sprite of Aeris shortly after her demise, and the *resurrection hacks,* which promise fans to include Aeris back into the team under some conditions. Overall, these "coping strategies" demonstrate the attachment some players have developed to the Cloud-Aeris formation.

Exposition

As a Japanese Role-Playing game, *FFVII* is both firmly rooted in an RPG tradition of turn-based combat mechanics dating back to a dice-throwing Dungeon & Dragons tradition (Poole 2000: 77), and a Japanese interpretation of role-playing as tightly authored experience of "becoming" a character (Burn/Schott 2004). This means that the core mechanics feature both the conventional RPG ingredients of "fighting and magic" (Poole 2000: 77), and "heavy characters" (Burn/Schott) 2004), whose relationships emerge from the way they grow over the course of the game.

In the game, the player embodies Cloud Strife, a pensive yet aggressive mercenary who joins the environmentalist movement Avalanche in an attempt to prevent evil international corporation Shinra from world domination. The long-winding story arch starts in Aeris's home city, Midgar, an industrial complex with a rigid class system, where we learn how to control Cloud Strife's body, and engage in our first Action Time Battles (ATB), *FFVII*'s interpretation of turn-based combat. ATBs occur frequently, interrupting the flow of exploration on the

map, and in city areas. They establish combat as an ordinary element to be expected constantly. In conventional RPG manner, these battles facilitate the growth of characters by awarding Ability Points (AP) for each victory. These gradually level up the characters, which means that their stats, including strength (HP) and magic points (MP) increase.

The distribution of AP, rather than purely mathematical, have an impact on inter-character relationships. AP translate into different skills, characterising protagonists as aggressive, resilient, or talented at magic. Apart from these character metrics, the contribution of different party members during battle has a social meaning, suggesting different kinds of chemistry between the characters. This is where the relationship between main character Cloud and NPC Aeris starts to matter, and the tragic turn of events during the first part of the game. Although she is just one among nine available optional characters which can be included in the active battle party, there are ways in which the game establishes her as indispensable choice. This makes *FFVII* an early example of how video games can express inter-character attachment through player metrics, algorithms and battle mechanics.

Attachment

British game scholars Andrew Burn and Gareth Schott (2004) have called Cloud Strife a "heavy hero" and compared his recognisable features to Homer's Achilles. This does not only refer to his signal look, but the way Cloud's personality traits as aggressive, melancholic hero are reflected in gameplay dynamics. On a social level of inter-character dynamics this means that Cloud is the measure according to which the inclusion of other characters is decided. Are they a good match for Cloud? Since the battle party is restricted to three members, this is a strategic question asked to the player, who is in charge of identifying favourable constellations, and maximising synergies with Cloud. At his point, the game introduces several encouragements to pick Aeris as compatible party member.

Limit Break

Since character metrics are hidden, players learn only slowly that Cloud's straight-forward aggression is mediated by an algorithm that makes him grow offensive skills faster than any of his allies. By contrast, no other party member, Cloud included, is as fast at developing magic skills as Aeris. This subtly suggests

that Cloud and Aeris are a well-balanced duo, a fact which can be particularly well observed in regard to the so-called Limit Break.

fig. 2.1: Aeris'sLimit Break *Healing Wind* in *FFVII*

In *FFVII*, Limit Breaks are individualised strikes performed by a character who has taken a serious amount of damage during battle. Inside the ATB window (fig. 2.1) Limit Breaks are represented through a progress bar next to each character's HP and MP count. This progress bar fills up whenever a character is hit; a process that may stretch out over several battles, or happen multiple times throughout a single fight. When the bar is full, the character's personal limit has literally been reached, and they will perform a special attack without consuming any points.

The Limit Break mechanic taps into common imaginations of what it feels like to reach a point of mental or physical breakdown. The progress bar stands for the amount of insult and injury a character is willing to take before they will lash out or intervene more constructively. This moment is expressed by the sparkling, colourful appearance of a filled Limit Break bar, and the rushing "fill bar" animation taking the character to their next turn more quickly than otherwise.

The discharge of Limit Break energy happens through a unique spectacular move predefined for each character. As the character develops, so do their Limit Breaks, making more choices available. This means that committing to a

character means investing in their Limit Break as well. Here is where we find perhaps the most important synergies between Cloud and Aeris.
In the *FFVII* universe, the common sense reaction to stress is retaliation, which is why most characters perform their Limit Breaks as particularly strong attack. Aeris is an exception; instead of violence, she converts suffering into healing, in some Limit Breaks through conveniently healing the whole party. In fig. 2.1 Aeris has just performed "Healing Wind", her first limit break which restores the HP of all party members. Interventions like this make her indispensable for the team, since Limit Breaks tend to occur in situations where at least one party member is sufficiently weakened. Apart from a strategic advantage of combining physical prowess (Cloud) with potent healing (Aeris), Aeris's Limit Breaks have economic advantages. The player uses fewer health potions if Aeris is around, saving Gil, as well as the effort to stressfully browse the inventory for curative items, while the team are about to die. On a symbolic level, Aeris's "healing reflex" characterises her as resilient, solution-oriented, and spiritually balanced.

fig. 2.2: Looking versus playing: Establishment of Aeris and Cloud in *FFVII*

Character Appearance

On the level of character design, the oppositional roles of Cloud and Aeris are reinforced both through the presentation of bodies, fashion items, weapons, and other symbolic attributes. This visual strategy is used throughout the games in many different ways, but as a point in case, I would like to describe the staging of Aeris and Cloud in the initial cut sequence. This sequence starts as a non-ergodic cinematic clip right after the player has pressed play in the start menu. It begins with a meditative pan shot through a star-spangled night sky, which transforms into green energy particles that slowly materialise into Aeris's face, looking the player straight in the eye. There is the cosmos, there is peace, and there is Aeris. We hear high-pitched synth strings and a sequence of chime sounds vaguely reminiscent of the beginning of Mahler's Titan Symphony (1898), before the soundscape turns more intimidating. Aerith turns around, distracted, revealing a long, buttoned pink dress, a pair of functional brown boots and a giant flower basket lightly dangling from one arm (fig. 2.2). As the camera zooms out, Aeris's location is exposed: She is standing amidst an urban, industrial landscape surrounded by skyscrapers, and next to a sign saying "Loveless & Sons".

This is the first glimpse into the dichotomy we have seen before on the level of battle mechanics: "Loveless" aggressive masculinity, sacred femininity. Now, in juxtaposition with the floral theme, Aeris is established as the "other" in a dark, smog-infested stronghold, dominated by the male-led Shinra corporation. As the camera zooms out from Aeris's whereabout, we oversee their work: A network of reactors linked through giant steam engines.

As the music picks up an erratic pace mimicking engine sounds, the camera pans in on another location. We are at a train station, where we see Cloud Strife for the first time (fig 3.2). Other than Aeris's first impression in high resolution, we see him somersault from the train in his lowest polygon count. Most notable is his spiky ash blond hair and the purple onesie, as the game transitions from cut scene to playable. As we take control of Cloud, the screen freezes and blurs, accompanied by the threatening hissing Action Time Battle sound. After a black-out we see our first battle screen, featuring a different visual representation of Cloud. Instead of the low-polygon Cloud, we see a well-armoured leather-clad mercenary in oversized boots and an androgynous face, inviting multiple gender

interpretations (Burn/Schott 2004). Most outstanding, however, is the massively over-proportional sword, with which he smoothly defeats his first enemies.

This introductory scene sets the tone in terms of character presentation: Aeris and Cloud are oppositional characters, who belong together due to their differences. This is a theme that will be repeated until Aeris's death, and in the initial sequence it is foreshadowed on three different levels. First, there is the level of symbolism and visual attributes. Aeris's simple gendered outfit, the flower basket, and the connection to the cosmos characterise her as sacred feminine, detached from the urban environment. The floral theme signifies innocence, wholesomeness and organicity. As we later find out, she is able to grow these flowers in the midst of the city's slums, indicating both resilience, and mystical powers. In contrast to Cloud, we first see Aeris unarmed, marking her as vulnerable in her violent surroundings. In stark opposition to that, the first we see of Cloud is as somersaulting, sword-swinging mercenary who seems well attuned to handling danger. His leather-clad outfit and the over-dimensional weapon characterise him as aggressor, and seamlessly blend him into the dark environment.

Secondly, there is a difference between who looks and who is being looked at. The initial close-up of Aeris's face, and the way the camera pans over her body to reveal her attributes in detail, positions her as object of first the player's, and later Cloud's gaze. In contrast to this, Cloud's first visual representation is a low polygon body that can be immediately inhabited. As opposed to the invitation to look at Aeris, Cloud comes with the invitation to act. In gameplay terms, Aeris's and Cloud's first impression are structured around non-ergodicity (Aeris) versus ergodicity (Cloud). Although this awakens interest in who the flower vendor might be, it also defines whose view we are going to take, and whose world we are going to inhabit.

This first division into agent and object of gaze is later challenged, even before Aeris's inclusion in the party. Minutes after the first cut scene, Cloud and Aeris need to escape an unforeseen attack in Aeris's church, and we get to experience Aeris's battle proficiency while Cloud tries to distract the perpetrators. By switching back and forth between Cloud and Aeris's point of view, the game provides a glimpse into how it would be to include her in the team. There is some

variability in how the game moves back and forth between establishing Aeris as object of Cloud's gaze, and equal by his side. As a reprise to the beginning, the event of her death again constructs her as spectacle to be looked at and objectified in high definition, while the mourner, Cloud, expresses his sorrow as the same low-count polygon we have seen in the beginning. He is the agent of attachment and later loss.

Thirdly, the pacing of the starting scene says something about the characters' personalities, starting out with a meditative, timeless pan shot across the sky and Aeris's contemplative posture, and transitioning to a hurried staccato rhythm leading up to Cloud's somersault from the arriving train. The extremes of meditative versus impulsive, passive versus aggressive are not merely facets of the game to be played in a moment, but anchored as qualities of the two characters. The beginning thus foreshadows that part of the game will revolve around negotiating Cloud's and Aeris's relationship; balancing the tension between their traits.

Musical theming

video games have a long tradition of using music to anchor the meaning of spaces and characters as well, particularly in the RPG genre, where elaborate musical scores accompany the epic journeys of player characters (the *Ultima Trilogy* (1989) comes to mind).

One game-specific demand is that scores respond to the interreactivity of games, and the fact that players explore environments in different paces, and orders. This is why games use short repetitive loops which can accommodate a sudden change of scenes, or a triggered event (i.e. a random Action Time Battle in *FFVII*). When it comes to attachment strategies, music has a specific function in *FFVII*. It uses the Aeris leitmotif to firmly anchor the character as part of the game world, suggesting belonging. The element of repetition here is important. Playing the theme again and again in signal locations, the game marks those locations as legitimately owned by Aeris.

In particular, this applies to two places: The church, and Aeris's birth house, both located in Sector 5 of the Midgar slums. In both places, the track *Flowers*

Blooming in the Church[5] is played. This is an adaptation of the Aeris leitmotif interpreted by a synth flute and marimba phone. Rather than concluding the leitmotif, it repeats the initial part of the melody in soft, contemplative triplets. The soothing quality of *Flowers Blooming* suggesting safety and warmth is also emphasised through the way we enter Aeris's spaces. In both cases, Cloud goes through some kind of danger to arrive at Aeris's locations. To enter the church, Cloud loses a battle against a Shinra robot, falls, and breaks through the church roof, where his fall is cushioned by Aeris's mysterious indoors flower bed. There is a transition from industrial to organic, profane to spiritual, hard to soft, which is further mediated through the meditative loops of *Flowers Blooming*. As the name suggests, it is supposed to indicate Cloud's return to an organic, sacred space uncorrupted by industrialisation.

Like Aeris's church, her house of birth is located in the most devastated, dangerous region of Midgar. To visit this location, players have to navigate the party through the slums, which is characterised through a dissonant musical theme dominated by agitated hi-hats (*Underneath the Rotting Pizza)*. Navigation is also frequently interrupted by random ATBs featuring the aggressive battle theme.

Finally reaching Aeris's locations, the soundscape marks our arrival at at a safe space. Rather than in the centre, the theme provides the background to a narrative scene in which we learn more about Aeris's past, are free to roam her house, and discover helpful items in the garden. By making the players experience the transition from slum environment to Aeris's oases musically, the description of Aeris as owner of peaceful, non-aggressive character traits becomes stronger. The repetition of parts of her leitmotif has three important functions: First, it provides context for what Aeris stands for in a world dominated by fight and violence: While the visual symbolic level of concrete attributes - the flowers, the church - is more blunt, sound makes a more subtle reference to meditation and safety. It explains on an affective, emotional level why players should invest in her. Secondly, repetition produces familiarity and therefore legitimacy. The more time players spend in Aeris's signal locations, the more often they will get to listen to her loop, the more likely they will memorise the melody. This, thirdly,

[5] Online source: https://www.discogs.com/Nobuo-Uematsu-Final-Fantasy-VII-Original-Soundtrack/release/329627

creates an important nostalgia effect that is used later when Aeris is assaulted and killed by Cloud's archenemy.

Traumatic Impalement and Secondary Loss

At the end of the first of the three *FFVII* discs, Aeris has disappeared. She has retreated to the Temple of Ancients, a giant mysterious seashell hidden in the Secret Forest, where she is at work summoning protective spirits in a last attempt to save planet "Gaia". After catching up with her by navigating Cloud towards the sacred site, the party leaves Cloud's body, and the game switches to a cut scene. The camera displays Aeris's face in deep meditation, while arch enemy Sephiroth dashes down through the roof and impales Aeris.

The details of this impalement are disclosed in a cross-cut; a rapidly descending Sephiroth with erect sabre; a closeup of Aeris's relaxed face; the penetration by sabre, the separation of body and mind, as represented through the disembarking White Materia bouncing down the stone pillars. In a sense, this is the reversal of Cloud's earlier fall through the church roof, where Aeris's flowerbed had saved his life. In the parallel scene now, Cloud's alter ego takes Aeris's life, similarly by entering her sacred chambers through the roof. Kotaku games journalist Jason Schreier (2012) reminds us of the careful composition of this death moment, in which "no shot is wasted". For the first time, we now hear the full Aeris Theme, which starts with a soft but confident harp triad, and builds up to become a full-fledged string carpet elaborating on the theme. Schreier notes that the bouncing movements of the life materia is slightly off the rhythm of this theme, emphasising the randomness of her death. When the cut sequence ends, the music doesn't. It is stuck in a loop, accommodating the ensuing scripted dialogue between Sephiroth and Cloud. For the incredulous player, Cloud makes explicit what just happened, holding the collapsed Aeris in his arms:

Cloud: Aeris is gone
Aeris will no longer talk, no longer laugh, cry...or get angry...
What about us...what are WE supposed to do? What is this pain?
My fingers are tingling.
My mouth is dry.

My eyes are burning!

In this short monologue, text adventure conventions are used. As we know from early text adventure games like Zork (1980), these use concise descriptions to build up architectures through text. Here, Cloud's description of his physical response to the loss - his tingling fingers, dry mouth, and burning eyes does the same. It uses text to create an emotional landscape which the player is supposed to imagine and empathise with. This is suggested by the collective "WE", which refers both to the in-game fictional characters and their loss, as well as to the remaining choices of the player. For both, in-game party and player, the realisation that "Aeris will no longer talk" is relevant. But for the player, its meaning is more profound, since it means Aeris is not longer available as vital contributor during battles, and her indispensable skills are irreparably gone.

The question "what are WE supposed to do?" as much as illustrating Cloud's emotional world, points to the uncertain status of the player grappling with the loss of ludic opportunities. In a world where Aeris's Limit Breaks are no longer available, where one has relied on her healing abilities, and invested in her growth, *what are we supposed to do?* These lines are visually supported by a shaking and trembling low-polygon Cloud sprite. Sephiroth stands right behind him, unimpressed, as he summons a boss battle monster.

As the scene blackens out and the battle screen appears, we notice a difference to regular boss battles: Instead of the default boss battle theme, we still hear the meditative *Aeris Theme*. This indicates that Aeris, and the shock of her impalement is still with the team. The peaceful melody is out of sync with what is happening on screen, creating the impression of post-traumatic shock and numbing. Aeris's tune literally reverberates in their heads as they party needs to master another challenge: It is the first boss battle to be survived without Aeris's protective Limit Breaks. Not only is the team emotionally paralysed, but it it technically disabled. Incidentally, boss Jenova Life launches the powerful spell *Aqualung,* whose impact is likely to kill a character. To resuscitate them, players have to lose time on roaming the inventory for the pricey Phoenix Down item. By being put in this vulnerable situation, the game reminds us that the loss of Aeris has consequences for the management of our resources. Healing becomes more

complicated, more expensive, and players will have to restructure the team to make up for her loss.

This means that additionally to the loss of an NPC which the player might like, there is a loss of gameplay structure, of organisation, which the player needs to amend. In grief scholarship, this unexpected practical consequence of loss is known as “secondary loss” (Stroebe and Schut 1999). As described in a previous chapter, the death of a loved one does not only cause emotional distress, but often comes with “additional sources of stress” which “add considerably to the burden of loss” (Stroebe/Schut 1999: 214).

The Jenova Life battle demonstrates to players that Aeris's death, too, comes with an additional source of stress, as her absence makes the team more vulnerable and less efficient in dealing with the requirement to heal the party, requiring ineffective roaming in the inventory. There is a need to find replacement for Aeris's contribution, and invest in new characters. As it turns out, however, some players are reluctant to undergo this “restoration” task, and instead invest in the ongoing commitment to the dead character (the only alternative to Aeris's restorative Limit Breaks is through the optional Ninja character Yuffie Kisaragi). In any case, adaptation requires efforts, and these efforts can encourage nostalgic feelings, and a sense of valuing what Aeris had meant for the game.

“Catch a glimpse of her even when she is dead” - Continuing bonds with Aeris

There is not much the game leaves of Aeris after the loss. The boss battle concludes the first of three disks, so when Cloud and his party leave the Ancient Forest, *FFVII* has only just started and progresses without structural changes. The ATB and levelling up system is still in place; life goes on so to speak and next we hear of Aeris is right before the end, dozens of hours later.
In other words, the game ignores the player’s struggles to come to terms with the loss, and there is room to be filled with creative practices of grief and commemoration. In what follows I will look at two strategies players have used to express an urge of reconnecting with Aeris after bereavement. Within grief studies, this wish is known as *continuing bonds*, which Silverman and Klass (1996) observe in different grief contexts. It is the notion “that the bereaved remain involved and connected to the deceased, and that the bereaved actively

construct an inner representation of the deceased that is part of the normal grieving process" (1996: 16). The two fan practices show different involvements in the relationship to Aeris. *Aeris's Ghost* glitch expresses yearning, searching for and commemorating her, while the *resurrection hacking* directly constructs her as available game character after death. These examples show how attachment devices in *FFVII* have encouraged ordinary grief reactions in some players.

Aeris's Ghost

The appearance of an Aeris sprite after her death is documented in the game's fan wiki finalfantasy.wikia.com. In order to see it, one has to make a detour to Midgar and enter Aeris's church. In this case,

> Aeris comes into view on the flower bed. She flickers and disappears when the player moves across a certain spot on the ground, or attempts to leave the church. Moving across the spot on the ground when approaching the scene cancels the event permanently, as Aeris's appearance is a one-time-only event. It is possible to move next to her if the player moves past the spot next to the broken pew before the location fully loads. In this case Aeris will not disappear, but she cannot be interacted with[6].

fig. 2.3 The Aeris *ghost glitch* as explained in JBedGames' *YouTube* tutorial

[6] This description can be found on FFVII's fan wiki: http://finalfantasy.wikia.com/wiki/Aeris's_ghost

In order to take a fleeting glimpse at Aeris, the player not only has to visit a certain place, but requires knowledge about how to move and where to position Cloud. They either have to time their navigation across a particular spot ("next to the broken pew") correctly or, alternatively wait and look at Aeris with some distance. This indicates how fragile a ghost encounter is; one wrongly timed step "cancels the event permanently" (fig. 2.3). However, if done "correctly", as YouTuber JBedGames demonstrates[7], players can experience different versions of the Ghost glitch, variously interacting with and looking at Aeris.
This scenario expresses investment in the *continuation of bonds* in three ways. First, there is some effort in deliberately ignoring the direction of the main plot for the sake of being with Aeris. Going back to the church is a detour; both in terms of acquiring knowledge to find the glitch, and the act of virtually travelling there. This demonstrates the lengths to which players can go to revisit the flickering image of the love object.

Secondly, the activation of the glitch itself requires particular skills and techniques in order to become "receptive" for the connection. The back and forth between the broken church pew symbolises the rituals grievers engage in when cultivating bonds with the deceased. Like bonding rituals to the dead are flexible rather than stable over time (Klass et al 1996: 16), so are the different glitch versions.

Thirdly, by navigating Cloud in and out of the church, the continuation of bonds is characterised as his project, his commitment to Aeris. The commemorative stance he takes in the church, the distance between their bodies, and the imperative to stand still or the glitch will disappear, speak of this commitment. Although initiated through him, it is the player who decides to continue this bond, and the game provides a (conscious or incidental) platform.

Coded Denial: The resurrection hack
The second commemoration strategy has been more proactive, and driven by the understanding that Aeris's loss is unacceptable. In response to this, players have

[7] A collection of Aeris's ghost glitches can be found here: https://www.youtube.com/watch?v=G9UEXLMarb0

conceived a piece of code which promises to “get Aeris back in your party”[8]. Hacker Niai Mitch elaborates that not only will this enable her to use “her best limit breaks”, but there will be “moments when you can catch a glimpse of her on screen in the field with your party even when she is dead”. On a more cautious note, there are also “times when you should avoid using her so as to avoid your game crashing. I very much hope that you find this guide useful, and enjoy!”. This already indicates that using the provided cheat code to continue the game with Aeris comes with a compromise. Like in the Ghost glitch, players must know about “rituals” to enable a connection with the dead.

Other than the glitch, the resurrection code is invasive, and introduces situations in which Aeris is "safe to use”, and others which will make the game crash. In the context of grief discourse, this reflects the concern that continuing bonds may both be a healthy and dangerous grief responses (Stroebe/Schut 1999).

This analogy is sustained by the fact that "bringing Aeris back” means bringing her old sprites, dialogue options, battle skills and animations back. Aeris does not contribute anything new, and in moments in which this is asked of her, the game crashes. This illustrates the downside of bonds to the deceased. When the dead fail to provide a cathectic response, it reminds us of the reality of separation. Although the hack constructs her as alive, this illusion breaks as soon as we realise that there is nothing new, nothing creative about the "returned" Aeris. Her presence merely consists of traces of a past that through player effort have been woven into a compelling memory of her. This activity of yearning, seeking and coding fabricates a small fantasy bubble in which Aeris continues to matter.

[8] A description of the resurrection hack can be found here: http://www.gamefaqs.com/pc/130791-final-fantasy-vii/faqs/38201?print=1

2.2 "YOU WERE THERE": YEARNING AND GAMEPLAY DEPRIVATION IN *ICO*

Introduction

This chapter discusses *Ico,* a Japanese action adventure game released in 2001 for the PlayStation2, and currently also playable on the PlayStation3. In the game, a horned boy named Ico is navigated through a mysterious castle in the hopes of escaping, accompanied by non-player character Yorda, a tall, fragile woman who does not speak Ico's language.

Over the first hours of *Ico*, the game revolves around Ico's and Yorda's relationship, using four design devices; a set of *dependency* mechanics, a spatial *elastic bond*, a *call/response* control scheme, and a *gender dichotomy*. I will first discuss these devices, and what they suggest for the inter-character relationship. Dependency mechanics define an unequal power balance between the characters, and the imperative to keep Yorda safe at all times. Drawing on the game's fighting, jumping and escaping mechanics, I will illustrate how Yorda becomes Ico's paranoid focus of attention.

Secondly, Yorda's vulnerability and Ico's clumsy attempts at protecting her are reinforced by markers of gender: Yorda is the personification of the helpless damsel. Floating through space at a slower pace than Ico, she is unable to defend herself against the lurking shadow creatures. Although Ico is shorter, he is physically superior, and can use his weapon to protect Yorda.

Thirdly, Ico's and Yorda's bonding rituals take place in a 3D space, and the level design affords a suspenseful back and forth between proximity and distance. Proximity - the spatial connection between bodies - means safety, but staying apart from each other is sometimes necessary to progress. I will discuss the pleasure of this elastic bonding ritual in terms of Sigmund Freud's (1920, Strachey 1962) *Fort-Da* anecdote, which points to the joy of retrieving something that was deemed lost.

Finally, the *Ico* maps the boy's constant paranoid separation anxiety on the controls. By pressing the shoulder button on the PlayStation controller, the player induces Ico to call out for Yorda, demanding her to come closer or hold hands.

I argue that these four devices play a central role in constructing the inter-character bond as something precarious and uncertain. This affects the way the game makes separation and Ico's grief response tangible. After separation, the loss of bonding rituals lead to a sense of gameplay deprivation which feels like a loss of purpose. This is also reinforced through the symbolism of environmental design: Ico is landed in a dark place below the castle walls, from where he must struggle back into a progressively crumbling castle in a (failing) attempt to reconnect with Yorda.

Exposition

As early as in the introductory cut scene, the game world of *Ico* is established as a sublime universe. The camera follows a group of nameless riders wearing armoury and horned helmets. Riding through an illuminated forest, they hold a horned boy captive, the player character to be. As we hear the soft sounds of birds chirping and winds shaking the leaves, the horses come to a sudden halt in front of a gigantic abyss. A mysterious chant sets in, accompanied by chimes, while the camera zooms out, revealing the landscape through a soft-focus lens. The abyss is indeed a moat, separating a magnificent castle from the main land. Panning over the complex contraption of bridges and walls, the title letters softly fade in.

Although the castle's doors are wide open, they are inaccessible for the men, who consequently seek access by water. From an intricate cave system on the bottom of the castle they work their way up inside. On the way there, a number of anthropomorphic doors need to magically open by holding a sword towards them. These are the doors Yorda will open later throughout the game.

The boy is taken to a spacious chamber reminiscent of a mortuary: Countless vessels resembling coffins are fitted into a wall; one of them throbs with energy; it is the boy's assigned tomb. The men apologise as they conceal the boy inside the vessel. As they leave, the room starts to rumble. Ico's coffin breaks loose, and Ico tumbles down, head first on the stone floor, where he faints.

In the next shot, a dream sequence, we see Ico anxiously explore one of the castle's rooms during a stormy night. The scene is dominated by lightnings, sounds of thunder and heavy rain. Ico's gaze moves up towards the ceiling where

one would expect a large chandelier. Instead, there is a spiked hanging cage from which black ooze drops to the floor. A black creature emerges from inside the cage while Ico is being pulled into a black hole. Such the dream sequence ends and the player gains control over the character back in the mortuary.

From this first scene it is established that space will play a central role in *Ico*. There is a notable size difference between characters and environments, evoking associations to 19th century landscape painting conventions[9]. Against the magnificent castle architecture, the characters appear minuscule and insignificant, underscoring the theme of abandonment players witnessed in the initial cutscene: A boy has been locked away and left to die in a wondrous space.

This is where we start navigating Ico around, using the left thumbstick on the PS2 controller. Since the game uses a third person view, Ico's body is visible at all times, a continuous reminder of the castle's dimensions. As he runs around, we notice his boyish tumbling movements, occasionally followed by playful exclamations. The camera is adjustable through the right thumbstick. The remaining commands are located on the right side of the controller, and mapped in alignment with Ico's physical space. Upwards motions (jumping, pulling up from a ledge) are performed by pressing the top/triangle button; downwards motions (dropping down while hanging) are mapped on the bottom/cross button. The square and circle buttons, which are located to the left and right, stand for Ico's hands. They are used to attack and interact with objects. The shoulder/R1, located on the back of the PS2 controller (fig. 2.6) holds a special significance in our ensuing interaction with Yorda.

Liberating Yorda from her cage comes with a bleak realisation; Yorda's freedom causes dark shadows to emerge and pull her towards a black hole similar to the one from Ico's nightmare. Yorda is helplessly delivered to these assaults if the player does too realise within seconds that Ico must pick up the stick and fight the ghosts. At this moment, there is no way players have internalised the controls necessary to achieve this. Unlike Cloud's heroic introduction, Ico makes its

[9] Characteristic of this convention is the painting *Mount Adams, Washington* from 1875 by the US-American painter Albert Bierstadt. The contrast between gigantic landscape formations and First Nation tribes in the foreground characterises nature as something powerful and awe-inspiring.

protagonist seem weak and clumsy, hinting at the many paranoid moments to follow (McDonald 2012).

If they fail to protect Yorda in time, the shadow creatures will pull Yorda into one of the dark holes in the ground, the game screen is engulfed by a black fog, and the game ends. This first traumatic moment introduces *Ico*'s core object: Defend Yorda from the spontaneously spawning shadows while solving a number of puzzles leading to the escape of the two characters.

Attachment

When it comes to attachment, Ico is the character through whose eyes we see the world, from whose perspective bonding happens, and whose inner life is expressed through mechanics, management of space with Yorda, and the visceral, haptic connection to her. In what follows I discuss the wide jump, the shadow fight, and the idol door as recurring situations which repeat and reinforce the differences between the characters, characterising the attachment in terms of co-dependency.

Dependency rules

First, the wide jump emphasises Ico's and Yorda's physical difference; the way their bodies relate to space, and how confidently they move in it. Ico is clearly superior; his movements are faster, his jumps are longer, and his climbing skills are more advanced than Yorda's are. Unlike Yorda, he possesses the skill of pulling himself up onto ledges, holding his own weight, and running faster than the shadows.

One of the more subtle effects is that Ico will pull Yorda behind him whenever they walk hand in hand. Like an impatient child pulling on the hand of his parent, Ico pulls and yanks Yorda's hand, forcing her to stumble closer towards him. When jumping is required, the effect is more dramatic. During countless situations, the characters are faced with a gaping abyss which Ico masters without hesitation. When Yorda is asked to jump by pressing the R1 button she will first nonverbally communicate her refusal and deny the jump. To make her jump regardlessly, Ico has to jump first and kneel down at the edge of the cliff. When R1 is pressed again, Ico will say a word of encouragement and gesture Yorda to jump. In an attempt to obey, she tries and fails; her hands do not even touch the

platform edge, but instead she lands in Ico's stretched-out hand. Unless the player lets go of R1, Ico can now pull Yorda up to the platform. This simple interaction, which is repeated over and over in the game, uses Yorda's weakness for the purpose of a quick thrill: Each time the player spots an abyss, she will correctly anticipate Yorda's failure, evoking a simple question: *Will I be able to help her this time?*

A similar dynamic is introduced during the ghost fights. As discussed in regard to *Ico*'s opening scene, Yorda's liberation from the cage is staged as the origin of the shadow attacks. Eliminating them is Ico's task, while Yorda passively awaits her fate in what seems to be anxious paralysis. This is afforded by the circumstance that picking up objects and using them on other game objects is an action exclusively available to Ico. Yorda's fear does not translate into self-defence, but triggers a flight response. Unfortunately, her in-built maximum pace is too slow; without Ico's intervention, the spirits at her heels will eventually catch up and take ahold of her. By rendering Ico physically superior, the game introduces a sense of moral duty. As the stronger character with a greater action repertoire, Ico needs to help and protect Yorda by making her run faster or eliminating shadows.

The player can decide between an offensive and a defensive approach. The offensive approach would be to try and destroy all ghosts while they attempt to abduct Yorda. The ghosts never initiate aggression against Ico directly, but some of them will strike back if under attack. In this case, they will knock out Ico for some moments, during which Yorda is unprotected. Another risk of the offensive approach is that Ico might be occupied with fighting one creature while Yorda is kidnapped by another.

Part of the game's increasing difficulty level has to do with the progressively versatile shapes and actions of shadow creatures. As the characters progress in the castle, the spiritual realm seems to undergo a kind of evolution, starting with simple spider-like forms whose smokey bodies can be dissolved simply by waving the stick. Later permutations include winged creatures and large anthropomorphic beasts growing thick, oily bodies. These advanced shadows are fast, efficient, and coordinated, endure a number of strikes, and are capable of

powerful defence attacks against Ico. They easily pull Yorda from Ico's grasp, shoulder her, and run or fly away quickly.

This is why playing aggressively in a later stage may feel overwhelming. One can choose, instead, an escape strategy, running towards one of the many magic idol gates hand in hand. Aesthetically, this escape scene gains a dramatic edge through Yorda's restless turning around towards the threatening shadows. If they have navigated a level successfully, Ico and Yorda eventually reach an idol gate characterised by two anthropomorphic pillars which will forcefully break apart as soon as Yorda approaches them. As a collateral effect, an energetic flash is released, strong enough to eliminate all shadows in the room. This allows a powerful defence strategy; instead of bothering with awkward shadow fights, the player may simply run and let Yorda unleash her powerful energy flash.

In any case, it will be Yorda's ability which allows the couple to progress, which characterises the relationship as co-dependent, encouraging different interpretations. Yorda both represents a living key which enables Ico to progress, but she is also in charge of the mysterious doors, suggesting that she has her own, hidden, agenda with following Ico. Indeed, Yorda seems to know the surroundings and solutions to the castle's many puzzles excellently. When the player gets lost, Yorda will give subtle pointers by calling Ico over or looking in the direction of progress.

Gender: Yorda, the female other(ed)

We cannot fail to notice that Ico's and Yorda's division into aggressive and impulsive versus fragile and defenceless characters is gendered. This pushes the meaning of bonding with a less capable other towards a heteronormative narrative: Ico cares about Yorda because he has found in her an attractive counterpart confirming his identity as male protector. In terms of visual staging, there are parallels to Cloud and Aeris in *FFVII*: Yorda's petite female body contrasts Ico's stubbly appearance. Her overly white limbs glow against Ico's brown skin when their hands touch. Fashion choices complement this difference. Yorda wears fringed, flowing garments, while Ico, as the bolder character, is allowed to wear a bright red shirt tightened around his waist by a brown leather belt. Ico's clumsy stumbling, and the echoing sound of his feet on the ground emphasise that he is grounded, while she hardly touches the ground. Binary

aspects on the level of character design are rounded off by Ico's signature object, the erect wooden stick, displayed on both versions of the game's box art (fig. 2.4). In both illustrations, this symbol for male aggression protrudes directly from his hips, while Yorda is the mysterious background figure or the rescuee dragged along.

There is one visual element with troubles a straight-forward reading of the Ico-Yorda connection as romantic heteronormative narrative; the size difference between the characters, which invites the reading of an age difference. While Ico is clearly a child, Yorda's age is left ambiguous by making her significantly taller. This could mean that Yorda is an adult attachment figure, perhaps even Ico's mother (McDonald 2012). This leaves heteronormativity unchallenged - the child can still desire their mother - but the act of aggression, the demand for attention, and the pulling of Yorda's arm gain a slightly different meaning. Instead of showing superiority, the child is demanding his mother's attention.

The overemphasised frailty of Yorda is an infantile fear of losing the beloved mother, and the paranoid shadow fight is an attempt of keeping the mother ideal intact. McDonald demonstrates that this reading goes far in explaining Ico's Manichean universe. As the mother ideal, Yorda is inherently connected to the dark queen who represents the "bad" maternal aspects which need to be

fig. 2.4: *Ico*'s Box Art. American (l.), and Japanese/European (r.)

repressed in order to be with "good" mother Yorda. From this perspective, the stick as male aggression is troubled to begin with: It can only achieve so far as to repress (kill) those dark aspects of the relationship which threaten the infantile mother ideal.

Fort and Da: Elastic Bonding

As already pointed out, spatiality in *Ico* is constructed through a spectacular setting in which the two characters appear fragile and lost. But the environmental challenges, and the fact that space is contested, renders the space between Ico's and Yorda's bodies precarious as well. The elastic bond device is used to create a suspenseful pulsation between separation and return, risk and relief, simply by defining the physical space between Ico and Yorda as contested.

Given the mysterious adversary Ico and Yorda are exposed to, the castle is an agoraphobic place; it is precisely the vastness and spaciousness that is threatening. It creates an ideal environment for the dancing attacking shadow creatures. Under such conditions, the game teaches us early on the imperative of keeping minimal distance between Yorda and Ico, since closeness translates to safety. Not only do shadows emerge less frequently when Ico and Yorda share a personal space, but Ico is also able to protect Yorda more readily.

At the same time, progressing in the game affords Ico to leave Yorda on an exposed spot at times to pull a lever, climb a rope, or open a door. The shadow mechanic effectively characterises such situations of separation as dangerous. The player is put into a position where they will anticipate the emergence of shadows as soon as they have left Yorda alone. It is this anticipation which causes stress; we have witnessed before what happens when we leave Yorda alone; and it is likely to happen again. The only question left to answer is how many shadows will emerge, and how long it will take them to abduct Yorda this time. A player may ask: Will I be fast enough to prevent the worst? I handled it before, but will I handle it this time?

Needless to say, there is pleasure in answering these questions affirmatively, and returning to Yorda before something serious happens. This pleasure is not unlike what Freud described in his *Fort-Da* game in "Beyond the Pleasure Principle" from 1920 (Strachey 1962). Freud observes a toddler boy repeatedly throwing a

wooden reel into his cot, where it is invisible to him. He then pulls it back again with pleasure. The name *Fort-Da* is derived from the boy's exclamations during each action, commenting on the object's status; "fort" (German: absent) stands for the tense moment in which the reel temporarily disappears, whereas the much more joyful "da" (German: present) celebrates the moment when the reel returns to the boy. Freud concludes from this observation that to the toddler, this game holds significance as a symbolic negotiation of maternal absence: The reel stands in for an attachment figure whose temporary absence the toddler must learn to cope with. To deal with the separation, the toddler symbolically enacts the joyful return of the mother.

Ico exercises the *Fort-Da* game on a basic level; throughout risky puzzle sequences, Yorda is put into a *Fort* position and thereby established as a vulnerable object worth of protection. Ico's return to her creates a pleasant *Da* moment, which can feel like the player's personal victory. We do not want Ico to leave her personal space, unless for the sake of such a pleasant return. Throughout the game, *Ico*'s *Fort* moments become longer and more difficult to master, but the pleasure of reunion grows proportionally, too.

The Call/Response Controls

The call/response device is a haptic strategy which defines communication between Yorda and Ico as essential part of the gameplay. Pressing the R1 button on the PlayStation2 controller stands for Ico's desire to connect to Yorda. Yorda will do whatever she can to accommodate Ico's wish by coming closer, holding his hand, or carrying out an assisted manoeuvre like the wide jump. This is even possible in a universe where Yorda and Ico do not share a spoken language.

fig. 2.5: Yorda's fictional language

Yorda's adherence to the mythical castle is underscored by the fact that her speech is encrypted, and even translated into fictional subtitles (fig. 2.5). Though being inherently alien to both Ico and the player, Yorda still consents to communicate with them on a physical level.

Where spoken language fails, there is the tangible level of the hand-controller relationship, which is the only medium to bridge the gap between the characters. McDonald (2012) has shed light on an interesting parallel between the anatomical nomenclature of the R1 button ("shoulder button") and its use in *Ico:* Through it, Ico literally rubs shoulders with Yorda, and, as McDonald suggests, the rounded shape evokes associations to the comforting maternal breast. This comfort - the response Yorda gives to Ico's calls - can be achieved in several ways, depending on the context, and the space between Ico and Yorda. When far apart, R1 triggers Ico to call out for Yorda, and she will try to come closer if possible. Only if separated by an obstacle unsurmountable to her will Yorda refuse Ico's call. In this case it is on Ico to find a solution.

We have seen the case in which the R1 button can be used to make Ico stretch out a helpful arm to catch Yorda after her jump. A similar dynamic is at work when Yorda faces an inaccessible ledge. If Ico jumps up first, R1 makes him reach out, and pull Yorda up by pressing the square button. As shown in fig. 2.6, the mapping of R1 does not interfere with any of the other commands. Actions mapped to the right side of the controller are triggered with the right thumb, while R1 is activated using the right index finger. This means that irrespective of what Ico does, contact with Yorda can be maintained at all times.

The most powerful deployment of the R1 button is certainly when Ico and Yorda are within each other's reach. In this case they will hold hands, triggering the DualShock feature of the PS2 controller to send a soft vibration feedback to the interreactive player. As indicated in fig. 2.5, this vibration feedback is felt on both grips of the controller. In conjunction with the action of holding hands, it underscores a sense of intimacy and safety, just like feeling another person's pulse during skin contact (McDonald 2012). If the player identifies as Ico, the controller may stand for Yorda's hand. Otherwise, the comfortable vibration may simply feel pleasant in its own right, contrasting the fast-paced action during combat, and the performance pressure imposed by a gaping abyss.

Altogether, these three design devices of dependency, spatial elastic bonding, and call/response mechanic anchor Yorda as a natural part of the game's objective. The first establishes responsibility over a helpless other as core motive to care, the second emphasises spatial proximity as an advantage for survival, and the third underscores presence by adding a pleasant haptic experience. Connecting with Yorda becomes as natural to the player as the action of navigating Ico around. There is one objective - escaping the castle - and this objective is based on the premise of a shared space. By repeated bonding exercises on the mechanic, spatial, and haptic level, shared space becomes a given, taken for granted. It will only be at the point of separation that the player realises how much Yorda has been sutured into Ico's universe, and what he lose when Yorda becomes unavailable to him.

fig. 2.6: *Ico*'s control scheme on the PS2

Farewell

Ico's separation from Yorda is introduced via a dramatic scene in chapter six, around two thirds of total playing time. Hand in hand, Ico and Yorda have finally reached the castle's front gate, and set out to leave it via the gigantic stone bridge connecting the castle to the forest. The weather is bright and calm, although clouds start forming in the distance. Halfway over the bridge, the castle's dark

queen approaches and pulls back part of the bridge. A gap widens between the two sides, separating the couple. Inverting the established power dynamics, Yorda stretches out her hand, and Ico needs to jump. If the player times this jump correctly, Ico grasps Yorda's hand. Foreshadowing the imminent change of gameplay, Ico's weapon slips and plummets into the moat. Meanwhile, the queen's shadow has reached Yorda, and starts engulfing her. Thus paralysed, Yorda's hand lets go of Ico, and he tumbles down. Yorda whispers the word nonomori, which will reappear later in the lyrics of *Ico*'s final song "You Were There".

Following Ico's fall in the abyss, the screen fades black. The soundscape changes, indicating that the weather has changed to a thunderstorm. In the PlayStation3 version, a small message pops up on the top right corner of the screen, connecting the diegetic inner game screen with the extra-diegetic black frame (see fig. 2.7). It reads "You have earned a trophy. Farewell". At the same time, we see the castle from a low, tilted angle, towering over Ico's new location in the rain - a giant cave. Although the "Farewell" trophy is visible only for seconds, it is an interesting addition to the PS3 version of Ico[10]. In this version, trophies are used as extra-diegetic elements to comment on a task ("Rescue") or geographical location ("West Gate"). What the "Farewell" trophy does is to rationalise and finalise the

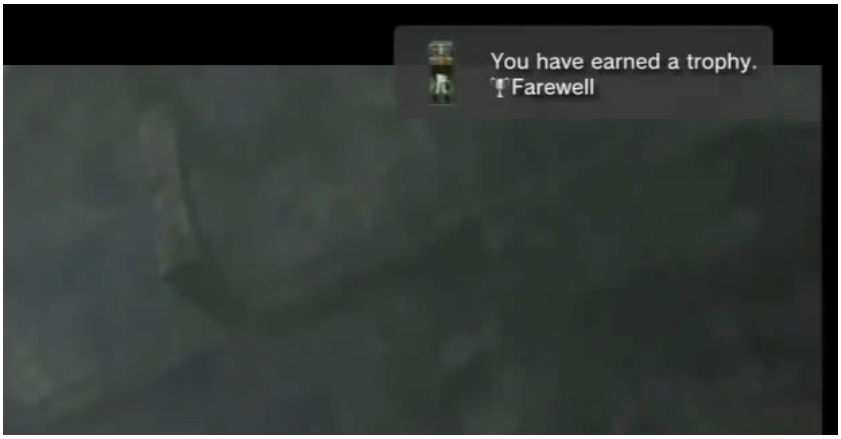

fig. 2.7: *Ico*'s farewell trophy

[10] The trophy feature is an in-game reward system introduced with the PlayStationNetwork (PSN) in 2006. It allows players to compare their achievements and share secret findings via the PSN. Developers can incorporate trophies of four different levels into their games (bronze, silver, gold, platinum), suggesting a certain competitiveness. However, it has also become popular to use trophies for narrative purposes.

separation of Yorda and Ico, using the authority of the generic trophy animation. The fact that "you have earned a trophy" means that a chapter of the game is now irrevocably closed. What we have "earned" is simply that confirmation, which may or may not help us find emotional closure.

Gameplay Deprivation

Ico's postlapsarian life is not quite what it used to be. For the first time, he will be on his own, in an environment that has notably changed from the familiar castle setting. While a thunderstorm is raging outside, Ico finds himself inside a cave, standing on a dark, spiked, hanging cage. This exposition mirrors the game's opening scene in several ways. First, this is a place not unfamiliar to the attentive player who will recognise it from the introductory scene, as a place the three horned riders traversed before imprisoning Ico. Ico is again imprisoned, but this time from Yorda's perspective, on a hanging cage. Secondly, both of Ico's awakenings are traumatic. Initially, the game's transition from cut scene to interreactive action happens via Ico's fall from the tomb/womb. In the mirroring postlapsarian scenario, Ico is exposed on what might be the cave's most dangerous spot.

The shift of scenery from a warm and homely indoors space to a rough outdoors environment is exploited symbolically. The player has been familiarised with the castle's architecture, its solid, tiled structure, its trimmed court gardens, and its balconies with a view. The weather had been bright and clear, allowing an unconstrained look at the promised land in the distance; a land seemingly bare of obstacles and therefore preferred to the castle's unpredictable mysteries. In other words, the spectator/player had been allowed to project hopeful future dreams on Ico and Yorda. In contrast to this, the rocky insides of the cave in the now are trenched in a greyish mist, making the organically shaped level structures difficult to read.

When we first find Ico, balancing on the narrow, dangerously dangling cage contraption, we realise he is surrounded by a confusing number of cages that need to be navigated to reach a solid precipice. Like other essential puzzle pieces ahead of us, this precipice is almost invisible, hidden in the dark. This breaks with established principles of level design lighting which usually aims at providing player guidance (Jenssen 2012). Players are literally left in the dark about the

path towards progression, introducing moments of guesswork and disorientation. Climbing passages start in unlikely spots, seemingly blind alleys literally "turn out" to lead into the right direction. Yorda's subtle direction pointers would have been helpful here.

Although the game contained water-based puzzles before, there is a new focus on swimming, falling into, and being washed away by water, indicating Ico's loss of stability. Through tricky rope climbing passages the player is landed in a dull cycle of climbing, falling, and climbing again. The rain outside and the waterworks inside the cave produce deep roaring noises and a thick greyish mist, two effects adding a depressive tone. Ico must follow a dark, confusing, and depressing path through organically winding tunnels, across rusty pipes, and barely intact cogwheels.

This means that Ico's life after the fall is characterised by gameplay deprivation. First there is a loss of important gameplay routines, such as the pleasurable *fort-da* dynamic. This introduces uncertainty: Can the game provide an adequate replacement for a previously fulfilling task? On a narrative level, Ico's identity as heroic leader is put into question. Ico's purpose of being in the world so far has been the aggressive protection of a weaker partner, and the constant search of intimacy. Part of his agency has been constructed around defeating Yorda's enemies, literally pulling her out of trouble. By removing this role as helper and protector, the game shifts focus on what is left of Ico: A character who is no longer needed, and whose place in the world has become precarious. His first encounter with an idol door is another way the game puts the player in touch with this precariousness. We remember Yorda's ability to effortlessly open the idol door, while Ico has to take a significant detour to find an idol sword, a prothesis substituting Yorda's natural born instincts.

Finally, there is a loss of the soothing DualShock vibrations whenever Yorda's and Ico's hands had met. Here, the game's previous investment in a single-button ritual mediating communication translates into a tragic effect: Since the player has become used to the sensation of hand-holding, the absence of a the soft rambling construct additional loss of purpose. *Ico* acknowledges that the hard-to-grasp sensual dimension plays a role during attachment. It mimics the subtle sensory complex of a partner's idiosyncratic touch, smell, and sense of presence

which is hard to let go of. Through the call/response mechanic, the game has created a sensual "Yorda complex" whose meaning changes when R1 is pressed in Ico's new situation. In this case, Ico will still call out for Yorda, but his call will die in the cave's void without response. Ico's dying voice thus confirms that pleasant bonding rituals like the wide jump, hand holding, a hand-in-hand escape from the shadow monsters, or simply a partner responding to the wish for proximity, have become a thing of the past.

Like in *FFVII, Ico*'s gameplay deprivation comes with a secondary loss. Yet while Aeris's removal from the battle party changes only parts of the player's strategic setup, Yorda's loss significantly changes Ico's relationship to the world, and removes the game's core objective of escaping together. Ico and the player have to deal with a loss of self in the form of Ico's heroic identity: The focus shift from socially oriented towards self-oriented shakes the foundations of what it means to be Ico.

This shift is reinforced through an emotionally charged visual and aural landscape. As mentioned, there is a transition from bright to dark, solid to liquid ground, from domestic to wild, from clear to clouded. Furthermore, the level design plays with the conventional metaphorical dichotomy UP IS GOOD/DOWN IS BAD (Lakoff/Johnson 1980). One starts high up on the castle platform, signifying the hope to be in charge. Hundreds of metres above the ground, Ico's "elevated" emotional journey takes place mainly on a horizontal plain. Although this comes with a paranoid fear of falling (culminating in situations in which Yorda's shadows push Ico off an exposed platform), there is hope, expressed through well-lit, accessible.

Ico then literally falls deep from this plane of hope. His place after the fall is close to the sea, the lowest point of the level. From the initial cut scene, we know that there are two ways to go from here; out (representing resignation) and up (representing yearning for Yorda). However, at this point the game forces Ico to go up, pointing that Ico cannot let go of his hopes to reconnect with Yorda.

Throughout the game, Ico will never give up his impossible fantasy of reconnecting with Yorda. On the contrary, he forces his way into the castle once again, where instead of Yorda, he finds the shadow queen. His attempts to kill the

queen, using the idol sword, are successful, but this does not bring Yorda back or grant Ico control over the situation. Conversely, he loses his horns and passes out while the castle starts crumbling.

This is when the game's final cutscene starts, and Yorda makes a last appearance in the form of a shadow ghost who carries Ico's unconscious away and tucks it in a boat. She then pushes the boat off onto the sea, while the castle collapses and buries her inside. Ico's departure is accompanied by the tear-jerking song "You Were There", laying claim to the fact that Ico's adventures will soon turn into "fleeting memories". As some lines from the song go,

> Fleeting memories rise
> From the shadows of my mind
> Sing "nonomori" - endless corridors
> Say "nonomori" - hopeless warriors
> You were there
> You were there
> Am I forever dreaming
> How to define the way I'm feeling
>
> You were there
> Countless visions they haunt me in my sleep
> You were there
> Though forgotten all promises we keep
> (from: "You Were There", 2002, sung by Steven Geraghty)

These lines are sung by a child's voice that may belong to Yorda, Ico, or both. As mentioned, the central word is the ominous "nonomori", the magical formula Yorda's whispers on the bridge during the moment Ico's hand slips from her grip. Through repetition, "nonomori" becomes the joint between past ("You were there") and the present ("Fleeting memories rise"), an evocative spell inviting the player to contemplate special moments in the game, before they put it aside. Furthermore, as encrypted phrase, "nonomori" has inspired fans to speculate about its meaning. Some believe that the phrase means "thank you" in a reversed

version of Japanese romanji[11]. While no evidence exists that “nonomori” means anything in reverse, another fan Rune proposes: “Instead of saying "Thank You", start saying "nonomori" to people; on the internet or in real life”. That way, Rune hopes to spread Yorda’s word, and become a part in ordinary language[12], indicating the wish to symbolically include Yorda in her everyday life.

To bond or not to bond with Yorda?

While discourse around Yorda’s language points towards interest in the character, players have responded to the game’s construction of attachment and loss in different ways. The inequitable distribution of power among Ico and Yorda has elicited frustration as well as emotional commitment.

For some players, the imperative to protect and defend Yorda makes her appear disproportionally useless, undermining bonding. As user Jack reports: “It’d have worked a lot better if when you find a better weapon, you give her your old one so she can at least attempt to defend herself. The game's pretty much one big escort mission, which is probably the root of me finding it to be stunningly average.”[13] When Jack refers to “escort mission” as a problem, he points to the often deplored design trope of a weaker side character whose behaviour does not match their vulnerability. Their poorly designed AI, or “artificial stupidity” induces them to throw themselves into danger, undermining the player character’s attempts at protecting them[14]. Jack implies, Yorda’s “uselessness” affiliates her with this trope and compromises her role as partner to be taken seriously. If only she would be allowed to participate in the action and show her commitment to the mutual cause.

For others, Yorda’s passivity enhances a feeling of paranoid commitment, and the fear of inadequacy. In the same forum thread, Cyhwuhx writes, “The very first

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[11] Claims about the purportive meaning of Yorda’s language are made on forums like neonseeker: http://www.neoseeker.com/forums/543/t933514-yordas-speech-at-end-spoilers/

[12] Rune’s suggestion can be found in the colourless forum: http://thecolorless.net/posts/48790

[13] Online source: http://www.rllmukforum.com/index.php?/topic/77573-ico/&page=2

[14] The TV trope wiki defines “Artificial Stupidity” as a recurring consequence of an Artificial Intelligence (AI) failing to choose an appropriate move for a simulated character. This failure of a computer to make a contextually appropriate decision is most visible in Role-Playing games, but also prevalent in escort missions, where NPCs often demonstrate “suicidal overconfidence”. http://tvtropes.org/pmwiki/pmwiki.php/Main/ArtificialStupidity

time she was pulled into the shadows, I felt a shiver down my spine. Everything… black.. I felt sickeningly empty". For superstarbeejay, "[t]he panic and urgency as you hear her yelp from a different room is spine tingling". In both cases, dependency is a meaningful source for emotional projection: The sole responsibility of Ico over a weaker other adds weight on the players' shoulders, causing them to experience "panic" and "emptiness". For those players, the game communicates paranoia of loss successfully. What characterises the relationship is a constant feeling of alertness; Yorda's dependency is not unpacked in terms of her own uselessness, but the player's potential inability to provide and protect. Emotional projection allows these players to become vulnerable themselves, putting themselves in a role where they can use the game to confront their own insecurities concerning questions of attachment and loss.

What is notably absent from the discussion is the fact that rejection or projection is performed through a gendered binary of male activity and female passivity. Dependency rules and the call/response controls particularly reinforce that player's attention is focused on Ico's inner life, while we know nothing about Yorda's dreams and ambitions. Since all of her actions are responses to Ico's demands, we never find out whether she even has a will on her own, or truly wants to be with Ico to begin with. The game never brings up the question of consent; Yorda is hard-wired to respond to Ico's request positively, without ever challenging his way or uttering her opinion. This makes *Ico* a in which the woman becomes an object of desire catering to male-centric paranoia.

2.3 CONJUGAL LOVE AND MODES OF DYING IN *PASSAGE*
attachment and modes of mortality in *Passage*

"He saw death standing beside him and knew that he was about to die"
- Philippe Ariès, The Hour of Our Death 1974

Introduction

Passage is a short minimalist 2-D game by American indie game developer Jason Rohrer and was published in 2007 for PC, Mac and Linux. In it, a pixelated representation of the game designer Jason Rohrer traverses the eponymous passage on a 2D plane, and there is the option to meet his wife and continue the journey as a couple. Over a playing time of five minutes, the couple is subtly pushed towards the right side of the screen until the spouse reaches the right edge, transforming into a gravestone. The player has to decide how to spend the player character's remaining lifetime as aged, significantly slowed-down widower. For fans, much of the attraction of *Passage* is due to the simplicity through which this story is told (i.e. Fagone 2008). The game does not feature any sophisticated bonding rituals, or fleshed out character representations. Rather, its minimalism provides an interesting case for how emotionally engaging representations of attachment, loss and grief can be conveyed through a simple ergodic spectrum.

Before I start exploring attachment, and how the game constructs falling in love, marital commitment, and conjugal loss, this chapter draws on the game's spatial symbolism, and how visual conventions of left/right are used to express the passing of time, and how the axis of and up/down is used to communicate different lifestyle choices.

The relationship with this spouse can be described in terms of three stages; falling in love, getting on with each other, and ageing side-by-side. These moments correspond with four design devices, a process of incorporation, a physical union of the avatars, age markers and gender. The latter is used to classify attachment as heteronormative romantic love story. I will look at the way these four devices model a notion of romantic love and marital commitment in a way that is not unproblematic.

Thirdly, there are two kinds of permanent death in *Passage*, conjugal bereavement and the character's own death which ends the game. In both cases, death is a consequence of *Passage*'s spatial ruleset, whose "dying condition" is that a character reaches the right edge of the screen. Although technically identical, the two deaths serve different narrative functions, which I will illustrate using Philippe Ariès' (1974) concepts of *mors repentina* and *tame death*. I argue that the sudden and scandalous *mors repentina* of the spouse is used to demonstrate the rule of dying and conveniently prepare the male character for his own *tame* death.

Finally, I will look at players' choices in the seconds spent between the two deaths. These seconds raise the ethical question whether or not the player walks on and loses their wife's legacy, the static gravestone icon, from sight. Drawing on players' reports from online fora and an observation I made when showing *Passage* to a fellow student, I will discuss the case in which players decide stop moving their surviving character to be with their dead wives. I argue that by doing so the player commits a transgressive act: They challenge the game's interreactivity, choosing viewing over playing as more appropriate register of mourning. They literally refuse to "move on", protesting against the imperative to keep playing. On the other hand, refusing interreactivity by standing still is an option the game allows and thus makes it available in terms of an ethics of continuing bonds (Klass et al. 1996).

Exposition

When opening the game, one cannot fail to notice *Passage*'s unusual proportions. The game takes place inside a 100x16 pixel corridor with large chunks of the screen above and below it blackened out (fig. 2.8). In conventional platform game manner, the player character starts on the left side of the passage. This initially suggests that the direction to go is east-wards. To move the character, the four arrow keys are used, taking real time control over a stylised representation of Jason Rohrer. The camera follows the character movements, scrolling the aisle-shaped window as he moves.

Traversing the passage, the character explores more of the initially blurred environments in front of him. Objects materialise as obstacles, decorative items, or treasure chests, some of which contain rewards. Such rewards translate into a

number of points added to the score displayed in the right upper corner of the screen. An additional point is rewarded for each step taken to the right. Apart from indicating progress, the score does not hold any significance for gameplay.

The dimensions of right and left, as we shall find out, are packed with symbolic meaning. Encoding left as past and right as future, they draw on what visual semioticians Gunther Kress and Theo van Leeuwen call "Given" and "New". In their book *Reading Images: The Grammar of Visual Design* (2006), they write that "[f]or something to be Given means that it is presented as something the viewer already knows, as a familiar and agreed-upon point of departure for the message" (2006: 181). Comparing visual texts across genres they observe that the Given of a message is usually located on the right. *Passage* is no exception. Starting on the very left of the screen, the player character is Given, both as controllable player unit and as discernible human character. The rest of the environment is blurred, indicating that the New is still out of reach.

> For something to be New means that it is presented as something which is not yet known, or perhaps, not yet agreed upon by the viewer, hence as something to which the viewer must pay special attention. Broadly speaking, the meaning of New is therefore 'problematic', 'contestable', 'the information "at issue"', while the Given is presented as common sensical, self-evident" (Kress/Leeuwen 2006: 181).

Little is known or agreed-upon about the blurry, garbled heap of pixels in front of the character. He faces an uncertain situation that might be "problematic" but also hope-inspiring. The objects in the distance are New enough that they haven't taken shape yet. This can be changed by approaching them. Since the field of vision moves with the character, approached objects turn from blurry to concrete, from New to Given.

Apart from the character's movement in space, he is also moved by space. Starting out on the left, his position is constantly advancing towards the right. This suggests that the progression from left to right also stands for ageing, for being in time. By doing this, *Passage* draws on another visual convention, namely representing time through space (Boroditsky 2000, Lakoff/Johnson 1980).

Expanding on Lakoff and Johnson, psychologist Lera Bodoritsky (2000) has suggested that thinking about time in terms of space is just as useful as using temporal information (Boroditsky 2000: 1). Among the spatial relations conventionally used to talk about time are front/back, as in someone being *ahead of her time*, and the notion of moving through time, or time moving us.

In *Passage*, these metaphorical conventions are translated into propositions of the game space. First, the character exerts agency by "going forward", by "moving ahead". Secondly, due to the shape of the passage, which is wider than it is high, the most "straight-forward" way to go is literally forward. Since the game's tunnel vision conceals regions above and below the character, walking up or down is comparably risky. It would mean to move towards the (visually) unknown. Thirdly, the score only increases when we move from left to right, indicating that going forward is objectively more rewarding than going up, down or left.

In addition to player-controlled movement, there is also the passive being-pushed forward as the game progresses. This reduces the distance between Given and New: The character is pushed towards a point where he has "seen it all", nothing about life is New, a moment which elegantly coincides with the time of death. The movement towards the right creates an anticipation of death. Game journalist Anthony Burch (2007) recounts that it took him "almost half the game to notice I was aging. By the time I realized what was going on, I suddenly became much more frantic; I no longer had the ability to see what was coming, and I took on a much more panicked pace as I tried to quickly progress through the landscape…" (2007: np). At the point of noticing the passing of time, noticing that the character is being pushed forward, Burch is confronted with the question of mortality, and how much time there is left until the rest of his life becomes Given.

While the unusual format of the passage pushes our attention to the left-right axis, it is also possible to move up and down. The division into upper and lower parts of the landscape is once again metaphorically charged. The "surface" level is easy to traverse because it is free from obstacles, but it is also free from interesting elements which can only be discovered by going deep. In contrast to this, the low regions feature an intricate maze, sprinkled with treasure chests and

visually stimulating decorations. The choice is between living a simple, conformist life which is boring, or a full life which is hard to navigate.

To go deep is to walk off a path which - through the score count - one is objectively told to pursue. Instead of doing the "right" thing, one commits to experimentation, and thereby dismantles the myth that life is flat, one-dimensional, and must be traversed in linear ways.

Attachment

If one follows *Passage*'s visual pointers and walks the character straight to the right, it takes some seconds to run into the arms of the spouse, whose presence in the world has lingered there from the beginning as blurry silhouette (see centre of fig 2.8). The moment of walking into her space has consequences for the rest of the game. Henceforth the player navigates a couple, classified as heterosexual by conventional gender markers. In what follows, I will discuss three moments in the construction and maintenance of this union: The way we fall in love, the way we go through life together, and what this suggests about imagined gender roles and the notion of romantic love.

Incorporation: Falling in Love

Upon moving closer, we turn the spouse character from a blurry, latent New into a recognisable Given; a red-head woman in a bright green dress. What distinguishes her from the player character is her static posture. Is she human after all? Curiosity may lead us to move closer. Figure 2.9 shows the situation right before entering the spouse's personal space. Once we do, a read bright heart envelops the couple. This moment in which "there is love" (Oliu 2014) is also the moment in which the hidden incorporation rule is triggered. This means that the woman is "turned on" into an animated wife-being, turning around to face the same direction as her husband, and starting to walk in sync with him. There is no space between the characters, so the player suddenly needs to navigate a conjoined couple, dealing with an alteration of game space.

Incorporation imposes a sudden turn of events, which takes first-time players by surprise, and constructs a certain notion of romantic love which is worthwhile disentangling in game design terms. First, touch is not only defined as expression of "falling in love". It also function as the cause of a permanent status shift from

single to couple. Once incorporated, the presence of the spouse is no longer up for debate. Love is circumstantial rather than a matter of choice. This is quite different from the attachment quality in *FFVII* and *Ico*, where players are interreactively involved in forging a bond. In *Passage*, the player has to come to terms with love as it strikes, love as something overwhelming to be adjusted to. This is problematic considering how the relationship is established. While "falling in love" comes unexpected, advancing the spouse is still an act committed by the male character, while the woman waits to be "taken" as a wife.

Gender

Like in the games previously discussed, *Passage* uses gender to say something about the attachment quality, the motives of bonding, and the characters' identities. Due to the game's minimalism, this happens through simple binaries. First, conventional markers like the long dress and the long hair are used to distinguish female from male character. But these markers correspond with a gameplay dichotomy of passive versus active. It is worthwhile looking at how this construction happens from the beginning.

When we enter the game the player character's gender is ambiguous. They are only defined through what they can do; traverse the Passage. When we meet the spouse, the visual markers introduce a gendered difference, and therefore encourage a heteronormative reading of the situation: The player character turns from genderless to male. However, since the player character and his behaviour are Given, it is the woman who appears as other. This is in line with what cultural critics Laura Mulvey (1973) and John Berger (1972) describe as mechanics of the male gaze. In her influential essay *Visual Pleasure and Narrative Cinema*, Mulvey observes the conventional staging women as image, as thing to be looked at, while men are the bearer of the look. Berger, similarly, writes that "men act and women appear. Men look at women. (…) The surveyor of woman in herself is male: the surveyed female. Thus she turns herself into an object - and most particularly an object of vision: a sight" (Berger 1972 : 42).

The spouse in *Passage* is a "sight" in the most classical sense. Before we "activate" her she behaves like other landmarks in the player character's environment, "like

a lamp-post", as a player observes[15]. A visual detail shown in fig. 2.8 is that before attachment, the woman, though positioned on the same plane, is slightly beneath us. In the second "love" envelops the characters, she is lifted and clicked into place side-by-side with the male character.

The portrayal of romantic love in *Passage* proliferates a traditional gender pattern we know from Grimm's fairy tales and 1960s and 70s Disney princesses (Stover 2013). In her essay *Damsels and Heroines*, Cassandra Stover discusses *Snow White* and *Cinderella* as prototypes of women"wishing for the one she loves to find her" (2013: 4). While Disney has moved on towards a post-feminist rhetoric of the strong female character fighting for autonomy (ibid), *Passage* presents waiting for love as only objective of the spouse. This is illustrated by the case in which she is not picked up. In this case she will indefinitely wait in her corner in the north-east, her gaze turned towards the past, where she suspects her lover. Since the woman is reliably passive like that, players can explore the passage until they get old, deciding last minute whether to spend their last days in company. In case players cannot find her, they can conveniently track her down, using Rohrer's coordinates[16].

The way gender markers are deployed do not get less problematic when considering the autobiographical dimension of the game. According to Rohrer, the characters are representations of himself and his spouse. In the closing note of the creator's statement, he writes: "That's me and my spouse in there, distilled down to 8x8 pixels each."[17] The authenticity claim in such a statement has led to a collective journalistic blindness towards *Passage*'s misogynistic undertones. Given the wide reception, the problematic portrayal of the spouse is surprisingly absent (Burch 2007, Grossman 2007, Koster 2007, Meer 2007, Siegel 2007, Thompson 2008, Fagone 2008). The collective appraisal of *Passage,* as "art game hit" (Koster 2007) and Rohrer as "programmer saving our 21st century souls" stands in stark contrast to the silence around the spouse's object status. Rather than autobiographical, the choice to program her as passive companion is a selective authorial fantasy (the spouse was alive at the time of game release) and

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[15] retrieved from a Forum user in the Penny Arcade Forum: http://forums.penny-arcade.com/vanilla/discussion/48341:

[16] Rohrer includes directions of the spouse in his creator's statement, which can be found online.

[17] See creator's statement http://hcsoftware.sourceforge.net/passage/statement.html

serves the sole purpose of providing a canvas of projection for male power fantasies. As the all-male journalistic choir demonstrates, this has canvas has been happily accepted.

The Union

Passage expresses romantic love as melting together of two bodies. Forming a union, causing "two to become one" is an old expression for romantic love, featured both in a *Spice Girls'* song (1996) and the *Old Testament*[18]. In both popular texts, becoming one denotes sexual intercourse, while in *Passage*, physical conjunction has more to do with giving up privilege in exchange for a life with someone else. Moving as one means that we can only move so far. Some of the deepest layers of the passage will have become impassable, and one may be confined to the "ordinary" surface level of a "simple life". However, if one manages to find a treasure chest, rewards will be doubled, as indicated in the score.

For some players, moving as a double character, however, has been a cause for frustration. As user Scosglen sarcastically asks in the Penny Arcade forum:"Is the hidden lesson that marriage will hold back your treasure-getting opportunities?"[19] For the user, the change from being single to being married equals a loss of opportunities, evoking a sense of compromise. Since the possibility space has been diminished, sharing space with the wife signifies lack of freedom. The increasing score count provides only a meta-commentary on the relationship. Like advertisement in a lifestyle magazine, it attempts to sell heteronormative commitment as a project worthwhile pursuing (Ingraham 2005).

What makes the union device work as design element fostering attachment instead of mere frustration is the space-is-time rule. The push forward in time now applies to both characters, and since the spouse walks ahead, the anticipation of an end, and the worry to lose her can be projected on her. What if she reaches the end of the passage? Will she die? Will both characters die? Being

[18] In Genesis verse 24:2 of the Old Testament, God commands: "Therefore a man shall leave his father and mother and be joined to his wife, and they shall become one flesh" (New King James Version).

[19] Online source: http://forums.penny-arcade.com/vanilla/discussion/48341

pushed towards an uncertain end creates suspense. There is an adequate threat unifying the couple not only spatially but emotionally. They are in this together.

Ageing

The collective push towards the right is related to the fourth device, ageing. Not only is the environment transforming in front of our eyes, but so are the characters' bodies as they get older. The first soft hint at this temporal progression is the constant change of the characters' pixelated fashion. Over time, the suggestion is, interests and tastes change. Simultaneously, hair colour changes as well; a particularly strong hint at deterioration being the moment Rohrer loses his hair.

These dynamics introduce a presentiment of death, of transitoriness. However, even in the light of physical markers of old age, and diminishing space between the couple and the right side of the *Passage*, it is impossible to foresee what will happen. After all, through the past minutes, players have become used to the monotonous pace of their walk, accompanied by equally monotonous, repetitive chip tune music. Additionally, what may keep hopes for eternal life up are the very conventions of side-scrolling games, in which death is usually only a provisional state. As much as *Passage* gives us cues toward its built-in mortality rule, we would not be surprised if the game presented us with a *deus ex machina* mechanics ensuring replayability.

A Place Where Avatars Go To Die: *Mors Repentina* and a Tame Death

Yet quantum immortality does not occur. Soon enough the game demonstrates what it means to arrive at the right side of the screen. The spouse demonstrates the death rule, showing that the end of the passage is the end of a character's life. There is a specified spot, some millimetres before the end of the screen, where the spouse avatar will instantaneously turn from person into gravestone. By putting her "ahead" of the player character, the game decides that the spouse dies first. Her transformation stays noticeably uncommented. The only change that occurs is that the player character is visibly bent over with grief, and from now on will move slower.

Passage's rule of dying is both shocking and instructive. It is shocking for its matter-of-factness: The game simply swaps the spouse's sprite from human to

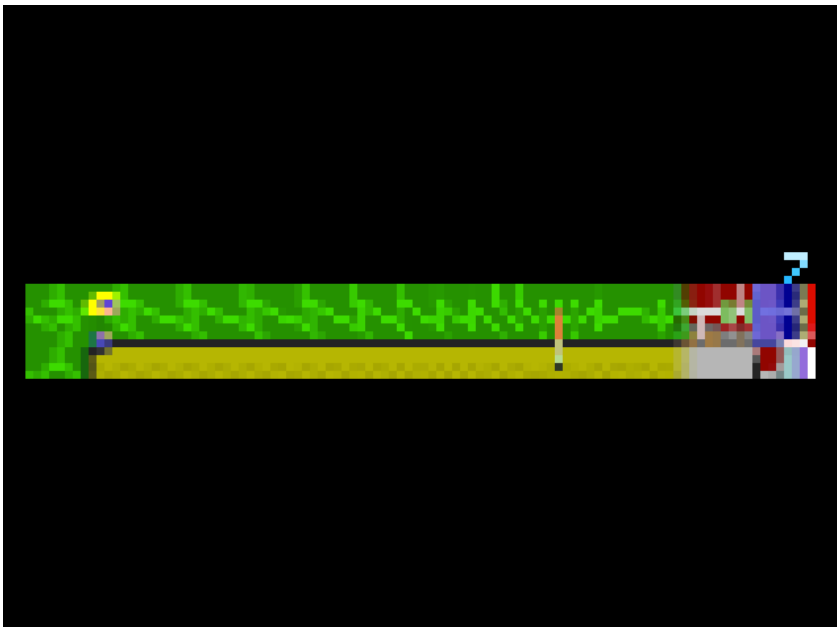

fig. 2.8: *Passage*'s starting position

fig. 2.9: Meeting the spouse

gravestone. There is no additional effect like in the moment of falling in love, which is accompanied by a simple falling in love animation. Neither is there a blackout, or another kind of cesura indicating something important has happened. Death is instantaneous and ordinary. On the other hand, this moment, is informative because it demonstrates what will happen to our player character sooner or later. Assuming that a similar transformation will occur to him, too, we

can guess how much time is left in the game. This gives the player some seconds for contemplation: They know, with some certainty, that their own death is imminent; how are they going to spend their last seconds?
I would like to argue that although the rules for both deaths are identical, they come with different meanings, as I will illustrate along two concepts by the French death historian Philippe Ariès (1974). Ariès noticed that among some common attitudes towards death in Western history are the notions of *tame death*, the idea that death makes itself known by those who die, and its opposite, sudden, traumatic death, a death that is traditionally shameful and ignominious. He calls this second, "bad" death *mors repentina*.

I would like to suggest that by means of its spatial set up, and the ageing device, *Passage* models temporality and evokes the anticipation of death. However, we do not *know* death until we see it in the sudden splitting away of the spouse. This makes spousal loss a *mors repentina*; an unannounced, and, in Ariès terms, scandalous version of dying. The scandal lies in its sudden, traumatic nature, for which the player is unprepared. While they might suspect that death might occur, the game has not told them how. In Western death culture, particularly during medieval times, unexpected dying has been conceived as “bad” death, contrasted by the controlled, certain, and announced “good” death.

Passage gives us a chance to experience this good, *tame* death as well, and it incidentally does so by using the women’s “bad” death as an example. Spousal death incidentally educates us about the rule of dying, and thus prepares us for what the player character is in all likeliness going to experience in a moment. In other words, the death of the spouse tames her husband’s death: It provides knowledge about when and where death will occur, and gives the player a chance at planning the last moments of the main hero. The wife is not only used as object of love and projection for grief feelings. She is also sacrificed to make the player character’s death less shocking, providing a tame death experience for her husband.

What would happen if the role were reversed? Only a slight modification - a swapping of character sprites when falling in love - would suffice to introduce a situation in which the spouse outlives her husband. In this case, the male character would carry the burden of performing a mors repentina with its shock

effect. The narrative would change to focus on the widow. For the first time active while single, it would be an entirely new experience to make her search the landscape for a treasure chest of her own before she realises it is time to pass.

While swapping gender roles, this scenario would not break with Rohrer's intention of an autobiographical narrative. Since his wife was still alive when the game was released in 2007, *Passage*'s death rule is a construction of an imagined future to which there are alternatives. When deciding who dies and who survives, game designers make (consciously or unconscious) use of available narrative templates. Mors repentina versus tame death are such templates, which *Passage* updates to the affordances of simple gameplay rules, presenting them as gendered events.

Death of the other, passivity, and the ethics of mourning

Apart from the different versions of dying, I would like to look at the seconds of the game between conjugal bereavement and the player character's death. Arguably, this moment presents players with a moment of choice concerning the question of continuing bonds (Klass et al. 1996). How do they spend their last days in the light of a loss? The spouse was part of their life, part of their virtual body they explored the world with. After the radical separation, the only thing reminding them of this connection is the gravestone, now firmly planted in the ground.

On the other hand, after the separation the player character is free and unconstrained again. Free from the bond, he can go wherever he pleases. Surviving conjugal loss has weakened him, slowing down his pace remarkably, but apart from this he is still able to move.

Given that his clock is ticking, the player is put before a dilemma: Should they move on in the hopes for a last stimulating experience, perhaps a treasure chest, or an interesting landmark? This would mean, however, to lose the gravestone out of sight, separating them forever from the wife's memory. So should they stay, and refuse to move on? In gameplay terms, this is a decision between acting and viewing, interreactivity and the refusal thereof.

For some players, maintaining visual contact with the gravestone has been an important symbolic act of attesting to spousal attachment; more important than their own ability to move on. I first observed this "passive" player ethics when discussing the game in a class of fellow PhD students in Vienna. To introduce the premise of *Passage*, I asked a colleague to play the game in front of the class. When they reached the moment of spouse loss, they stopped. Then they let go of the controls and announced that playing on was futile and they would like to just wait for their own death.

Other players have reported similar experiences online. User LewieP writes in the Penny Arcade forum: "When my wife dies, I stop exploring, and stand by her grave so we can be together forever". When another user calls this response "disturbing", LewieP explains: "I knew I was going to die soon after her, and I wanted our graves to be side by side. If I had carried on exploring, our graves would have been no way near each other."[20] Like my fellow student, LewieP is willing to trade the player character's ability to move for a few last moment spent with their wife.

The wish to "be near each other" induces the player to perform what I argue is a transgressive act against the game. By letting go of control the player disobeys the game's imperative to move. The player could move, but they don't. That way, they are denying interreactivity, treating the game as non-ergodic text, a spectacle. On the symbolic level, this transgression in terms of a play against play can be unpacked in terms of a denial of normality, doing business as usual. Stillness is a way of protesting the narrative of "moving on", which is offered, but not enforced by the game rules. The player does not have to mod Passage, but can simply choose to spend a contemplative moment in silence before the game ends. As LewieP puts it "what you can see on screen is what you can remember, had I let my wifes [sic!] gravestone go off screen, that would represent forgetting about her".

Overall, the meaning of walking away as forgetting and staying as commitment to memory resonates with Freud's mourning/melancholia binary discussed previously (Freud 1917, Strachey 1961). Freud associates "normal" mourning with

[20] Online source: http://forums.penny-arcade.com/vanilla/discussion/48341

the act of cutting bonds with the deceased, a radical closure through the efforts of grief work. In *Passage*, cutting bonds would occur in the moment when the spousal gravestone disappears behind the zealous griever. Squashed into the pixelated rest of past memories, the spouse becomes a trace, no longer occupying the bereaved. Letting the gravestone go off screen is a tangible image for this radical step of cutting bond. Players' protest against this image can be understood along Klass et al.'s critique and the proposition of a "continuing bonds" (Klass et al. 1996) approach.

From the paradigm of the dominant model, standing still might not be "normal" - after all one does have the option to move on, to move away, to act. Moving one's hands away from the keyboard may first seem like a destructive act, since it challenges the status of the game as interreactive experience and breaks with the established flow of the game: If traversing the passage is life, standing still is death. The option to stand still, then, could be read as self-reproach. The player gives up their right to move (live) in solidarity with someone else's loss of movement (life).

This solidarity expresses agency in its own right. The decision to stand still against the "dictate" of the game is a demonstration the player's emotional priorities. Since the game ends after five minutes, the player claims control over the point of time at which the character no longer moves, expressing a "last wish" to be with their wife. Precisely by calling ergodicity, the rule of the game, into question, the player celebrates their choice of staying connected with the deceased.

2.4 "LET'S ALL BE GOOD MOTHERS OK": MOTHERING AND MATERNAL BEREAVEMENT IN *SHELTER*

Introduction

Shelter (2013) is a 3D adventure game by the Swedish independent game developers Might and Delight, currently available as downloadable title for Windows and Mac OS. It uses a third person perspective to tell the story of a badger mother[21] protecting five young cubs while journeying from burrow to burrow. While traversing a contemplative, danger-ridden landscape, she must look after the well-being of her offspring, hunting and gathering food, mastering wildfires and waterfalls, and escaping predators. The danger of these situations is underscored by the use of a permadeath mechanic, which renders the death of a kit or the mother irreversible, in the latter case leading to the premature end of the game.

Besides its sequel *Shelter 2*, *Shelter* is one of the few commercial video games casting a mother as protagonist, and touch on the experience of maternal grief. Games discussed in previously chapters have featured mothers too, alas in passive or antagonistic roles (from the ghost mother in *Brothers,* to the dark queen in *Ico*), while the attachment and grief experience of grief is mediated through the eyes of a male character. In *Shelter,* by contrast, we negotiate the game world, and feelings of attachment and potential loss through an implicitly female, maternal body.

This makes *Shelter* a particularly interesting game to learn from for my case study on maternal grief as game design goal. This applies to the positives as well as the downsides. *Shelter* portrays the mother as powerful, protective agent, but also as agent without needs of her own. I argue that this updates the patriarchal myth of the self-sacrificing mother discussed by cultural media scholar Ann Kaplan (1992). According to this myth, the mother is inseparable from her nurturing tasks; her own needs are silenced.

[21] The player character's gender is left ambiguous, but there is a consensus among game designers that she is a mother. Furthermore, the developers mention "all mothers" in the thank you note at the end of the game credits.

This will be done in three sections. After outlining Shelter's proposition, this chapter will look at four bonding devices fostering maternal bonding. A set of *dependency* rules formulates motherhood as task (Chodorow 1978), similar to the dynamics in *Ico*, the spatial device of *invisible bond*, which establishes the mother-infant bond as natural, visible *age markers* fostering the division into care taker and receiver of protection, and the device of *aural synaesthesia* to communicate the emotional shared life of mother and children.

Following this, I will look at ways to experience loss in *Shelter*, and how the permadeath dynamics construct loss as unique event. Drawing on my first playthrough, I will discuss the case of maternal bereavement, and the consequences of losing all badger kits during a play session. In this case, the establishment of care and protection as sole purpose of mother badger backfires and translates into a "depression narrative", where the landscape has lost its nourishing function. I argue that this consciously or unconsciously reproduces the myth of maternal loss as frequently pathologised[22] "worst loss" (Rosof 1994). Minor adjustments could have led to a more empowering notion of post-loss survivorship.

Finally, the range of traumatic situations that can be experienced in Shelter has led to a culture of online "witness reports" in which players share their traumatic experiences online. I will look at two types of witness reports published on the Steam community forum, the trauma testimony, and the technical complaint. I read these reports as different types of "meaning reconstruction" (Neimeyer 2000), which raise questions about empathic and guilty play. On a broader level, whether maternal grief is embraced as something to live through, or rejected as unwelcome failure to "entertain" says something about players' expectations of their medium.

Exposition

When opening the game, we see the "start" menu embedded in an idyllic pastel backdrop of the autumn forest. The waterfall completes this first harmonious look at nature. We hear the mediative purling of the water, and a frog's soft rhythmic croaking, while Shelter's slow tune sets in; a contemplative ballad in

[22] Child loss and parental bereavement is frequently related to "maladjustment" to loss, and diagnoses such as Complicated Grief Disorder and post-loss morbidity (Shear and Shair 2005).

minor key performed on acoustic guitar. As we press start, the waterfall becomes louder. We have entered the comfortable burrow behind it, and are immediately put into the role of the badger mother. The first thing we hear is the whining sound of the small badgers miniatures demanding the mother's attention. They are miniatures of mother badger, each with their individual fur painting.
Upon pressing the WASD keys, the mother can be navigated through the 3D landscape, mouse movement adjusting the camera position, and the left mouse button interacting with the environment. When pressed with no game object around, the mother opens her mouth and growls at her young. The young respond in a high pitched unison. Wherever the mother navigates, her four badgers will try to follow and remain in her personal space. The fifth kit is greyed out and lies motionlessly on the floor. Is it dead?

A green leafy object can be pulled from the ground. It is a root, which the mother can carry in her mouth and feed to whoever needs it most. When fed to the perishing kit, a banjo jingle is played, indicating success. The badger kit's fur turns brown, like their siblings, and the reunion of the family is complete. It is time to leave the burrow and learn about hunting and gathering activities in the open field. Like in Brothers, instructive prompts are used to illustrate these core mechanics. In fig. 1 the player is shown how to shake fruit off trees by sprinting

fig. 3.12: A visual prompt in *Shelter*

towards them and ramming the stem. This feels rewarding in its own right: When a tree is rammed, the impact is indicated by a slight screen shake, and we hear the numb plummeting sound of the fruit hitting the ground. This is an example of what Stephen Swink calls "polish" in his book on *Game Feel* (2009), a factor that contributes to a gratifying gameplay experience.

The mother can either leave the fruit on the ground, in which case the fastest kit will pick it up. Otherwise, it can interact with the fruit to pick it up and have the cete of badgers collect around her, wincing with anticipation. The mother can then move closer to a kit of her choice and feed it the fruit. Moments later we encounter our first rodent, fox and frog, accompanied by similar instructive prompts. Hunting is done by the same principle of sprinting and a well-timed attack using the mouse button.

While we are informed about possibilities of hunting and gathering, the consequences of failing to feed a kit are only shown empirically, as they happen. As indicated in the cave, kits can die, but before they do, they will slow down, and experience problems following their mother. This has consequences for the upcoming challenge; the crossing of a field which is dominated by birds of prey. Running from cover to cover as a group is only possible if all kits are strong enough to catch up in time.

These first moments in Shelter characters mothering as both vulnerable and powerful task. This is indicated through the opposites of a mediative low contrast environment and choice of 3D controls which are traditionally used in fast paced first person shooters[23] like *Doom* (1993) and *Quake* (1996). Having entered the game via a pastel-coloured, contemplative opening screen, and the family scene in the burrow, associations to violent actions seem out of place, but in fact they hint at the reality of permadeath threatening the parenting project.

The mother is the heroine in charge of survival; not just of herself, but of the whole group. This power is first indicated by the resuscitation of the greyed-out badger in the corner of the first burrow. At the same time, the threat of death is

[23] The conventional FPS controls of WASD keys and mouse controls were later appropriated by the *Thief* series (1998-2009) for stealth gameplay. Games like *Dear Esther* (2012), *Gone Home* (2013) and *Proteus* (2013) have recently challenged associations to rapid-fire action by using similar controls in an environmental exploration setting.

directly related to the "mothering performance": Timing jumps against the tree, finding roots, and making informed choices about which kit to feed next are required, or the badgers will turn grey and starve. Mothering is not restricted to tasks like hunting and gathering, but the mother's every move is characterised as precarious. As the leader, she can walk her offspring into danger and they will blindly follow.

Attachment

In this section I will unpack *Shelter*'s principle of mothering and maternal bonding along four game design devices. First, the game uses *dependency rules* that program the mother in terms of two tasks, protection and nurturing. This allows the game to construct a dichotomy of giving/receiving between mother and children. Secondly, on the spatial level, the *invisible bond* device represents infant bonding as natural, instinctual thing. The NPCs pathfinding activities mimics a need for closeness with the mother. The contrast between care taker and recipient of care is further emphasised through the visual level of character design, in which *markers of age* are used to indicate responsibility and vulnerability. Furthermore, the game presents an interesting case of aural synaesthesia, in which sound is used to emulate the badgers' collective sense of danger and satisfaction.

Dependency tasks: Protecting and providing

Feminist thinker and motherhood theorist Nancy Chodorow (1978) has pointed out that rather than an innate instinct or identity, motherhood is best thought of as task. The task of mothering in *Shelter* is expressed as two acts of giving: The act of giving protection, and the act of giving care. First, on the basic level, *Shelter*'s mothering comprise (spatial) planning, well-timed navigation, and observation, both of the children and the environment. The imperative of survival in a potentially dangerous open field, and the condition of potential predator attacks and starvation, focuses the player's attention to the well-being of the kits: Is it safe for them to follow where we go; can they follow in time? Is the distance between two patches of protective grass short enough to pass?

The flexible camera movement allows regular nervous looks over one's shoulder if one suspects a kit to be lost. Such anxious questions and manoeuvres is reminiscent of the paranoid bonding rituals in *Ico,* yet with the justified fear of

permanent separation. Two situations in which this fear of separation is particularly invoked are the bird-infested meadow, and the creek crossing.

In the first scene, the shadow of a bird must be constantly observed while the family runs from one patch of grass to the next. The player has to keep a focus on the goal of the journey while also ensuring that all badgers reach a protective patch of grass before the bird can dash down and snatch it. Difficulties can arise if the player feeds a cub on the way, triggering an eating animation which stops the kit in the open field. It is possible to distract the bird, but if struck, the mother will suffer an agonising death herself, and the game will end prematurely.

The creek crossing scene requires a monitoring of the rhythmically recurring waves, and the identification of protective areas sheltering the kits from harm. Like on the bird meadow, this scenario requires well-timed decisions, as well as the ability of kits to follow their mother.

This ability is missing in case the mother has neglected her second task; providing food. As demonstrated in the beginning moments of *Shelter*, the game comes with a binary between active hunter/gatherer and passive eaters. It is established that the cubs must eat but that they are also incapable of procuring their own food. This is underscored by their anticipatory bouncing in front of a desired root or fruit tree, while they patiently wait for their mother to prepare the item for them.

While nourishment is an important concern for the young, the game portrays the badger mother beyond material needs. In fact, she does not have any prescribed needs at all, apart from the urgency of survival which coincides with the player's objective to complete the game. The two mothering task of protection and provision work according to the binary of giving and taking, in which the mother's sole purpose is to become the dependable provider. Like Ico, she needs to be needed.

Invisible bond

Most importantly, there is a default connection between mother and children, expressed through an invisible thread between them. Wherever the mother goes, the offspring will follow, or at least try to do so. This constructs the space between

bodies in terms of an instinctual connection. The badger kits are programmed to literally follow their mother's path, and stay connected on a physical level. This is reminiscent of the unity device we saw in Passage: In both cases, the connection and the imperative to bond physically is imposed by design. However, even though the children follow blindly, there is still space between their bodies. As a result we can distinguish between the body standing for responsibility, and the bodies standing for vulnerability. This is the case because the mother badger can navigate and go wherever we like, while the kits are delivered to our navigation. Infant-mother bonding is evoked as something that is naturally given and that is, like the marriage in *Passage*, non-negotiable.

This constellation hails at the player to become the dependable caretaker: There is someone who will trust them with their life; will the player live up to it? The mission is to keep the family close. This is not always easy, particularly at night, when the badger's field of vision is dramatically reduced, and an approaching wolf pack can cause the badger kits to disperse in panic. The only way to prevent the loss of a young one is to run after them and find them within seconds.

Another challenging situation is the crossing of a wild river, which needs to be timed so that even the slowest badger can follow in time. In other words, Shelter is much about looking out for others, and adapting one's speed and strategies to those who are more vulnerable than the player character. Over time, the badger kits gain in size and speed, until they are almost equal to that of their mother. This is a way in which the game subtly rewards the badger mother's efforts, which smoothly translate into players' accomplishments.

Age markers

Age is expressed through the kits' bodies, which start out as miniature versions of their mother, clumsily waddling by her side, and grow as the game progresses. Due to the size difference to their mother, the badger kits are immediately recognisable as fragile, helpless others, worthy of adult nurturing attention. This effect is described in Elisabeth Isbister's (2006) character design manual, in which she points to the babyface bias in social psychology. According to this model, childlike features are more likely to evoke assumptions of dependability, reduced responsibility, submission and manipulability in the player (Isbister 2006: 10).

In *Shelter*, this effect is encouraged to take over the caretaker role as responsible badger, and emotionally invest in the young. As I will discuss later, the appearance of the “miniature" badgers has motivated some players to name them, adopting a role as parent or pet owner.

The impression of an age difference is not limited to the visual level, but addressed aurally as well, as described in the idle call-response ritual. Here, the low-pitched brawl of the mother represents adulthood, while the badger kits’ “cute” response reinforces their waddling, helpless appearance as legitimate receivers of care.

Aural synaesthesia

Shelter’s washed-out graphics and the lack of lighting pushes attention to other levels of perception. The aural synaesthesia device produces the coupling of sensations (Pichlmair/Kayali 2007), i.e. through the mimicking of the badger’s sense of smell through audio cues.

Predators and environmental dangers, like the wildfire, have their characteristic sounds, and they are audible before they are visible. Becoming attuned to one's aural surroundings, then, can be a matter of life and death. If the distressing, dissonant signal of the bird of prey, for instance, appears, we are well advised to seek refuge in the tall grass even before we see the bird's shadow on the ground. This kind of aural player guidance simulates the badgers’ instincts and sensual experience. The aural interface operates like a sense of smell which informs the animals about possibilities and dangers.

Aural synaesthesia is also used to characterise what kinds of dangers and predators the badgers currently face. The bird theme is a hectic and energetic rhythm sequence accompanied by wind noises, mimicking a predator which will swing down speedily and snatch the child. The nocturnal wolf theme is smoother and slower, pointing to the stealthy wolves lurking in the shadows.
Yet the device is also used to characterise positive experiences, such as acts of feeding, in which we always hear the reassuring banjo jingle. When we reach a safe area, the badger’s sense of safety is expressed through a guitar arpeggio, or the repetition of the theme.

The worst loss: Coping as bereaved badger

While the premise of the game is to keep as many kits alive until the end of the game, the permadeath mechanics allow loss moments to happen at various points in the game. These loss moments are varied, ranging from attack by a bird of prey to the slow starvation of a young. Sometimes the cause of death is indicated on the diegetic level, as in the high pitched screech of a kit being hunted by wolves at night. Sometimes, the cause of death is extra-diegetic, such as in a technical error, like a glitch, or a pathfinding mistake that has a badger prematurely leave their cover on a hawk-infested meadow. In such cases, the only indication is a missing badger graphic.

Irrespective of the cause of death, it is introduced matter of factly, refraining from dramatic commentary, synaesthetic response or change of environment. This is unlike *Ico*, where we have seen the emotional landscape device at work, or *Brothers* where death is framed as tragedy through carefully composed grieving rituals. In *Shelter*, life continues for the bereaved, and the lack of mechanical, aural, or visual closure invites feelings of guilt and a sense to have failed as a caretaker.I would like to discuss this construction of the bereaved mother as ultimately failed identity, looking at my first playthrough of *Shelter*.

When I first entered the game, I was overwhelmed with the camera controls, and missed the tutorial lesson that feeding the kits was mandatory for their survival. This is why after some time one of my kits went grey and was left behind, motionless. This taught me to forage our for roots, rodents and frogs with some degree of desperation, seeing another kit perish like this seemed unbearable. Each fruit shaken from a tree, each root pulled from the ground, picked up by mouth and fed to the kits renewed our spirits. The soothing banjo jingle accompanying each feeding action confirmed that an act of caring had taken place.

Only minutes later, during the night, the next incident happened. While the kits scattered around in fear of predators, my attempts to search for them by running into arbitrary directions was futile. A nauseating screech later, the group had gathered, but one young was missing. This moment has been characterised by journalist Cara Ellison (2013) as “huge loss, somehow, at the fact that a little

badger graphic has disappeared". By the point I realised that I had miscalculated the distance from one shore to the next, I had given up on seeing my three remaining kits alive. And indeed, I left the creek alone, as fully bereaved badger.

Feeling a deep sense of purposelessness, I also noticed that the bereaved badger parent was still able to use the environment, hunting and gathering as before. Perhaps she could at least engage in some self-care activities, now that she was on her own and unconstrained by the demands of her offspring. When I hopefully pushed her against a tree and picked up an apple, my badger walked towards it and picked it up with its mouth, as usual. Instead of eating it, however, the apple remained in her mouth, as if she wanted to offer it to her dead offspring.

I walked the badger into a random direction and pressed the mouse button again. The apple dropped to the ground, uneaten. For the lack of other options, I picked it up again and carried it through the forest, until I found a rodent, which I hunted and started carrying around instead of the apple. I used the badger to randomly pull out roots, shake off apples, and hunt animals, hoping that she would finally notice she had needs too. In the end I was surrounded by nutritious items which did no longer function. This indicated that my badger no longer functioned, due to her status as *bereaved mother*. It had never been as clear that the landscape, the game world and its objects were designed for the benefit of her children, and now that her children were gone, so was the point of the environment and its interreactive features. The forest had become a place of cynical abundance, in which my vital life-saving skills had been reformulated to become destructive; as the piles of dead rodents and useless apples attested.

On the narrative level, *Shelter* suggests that adjustment to maternal bereavement is impossible. Although the badger's identity status has changed, her rituals have not. She is incapable of shifting the focus back to herself, leaving the food she is so willing to procure, untouched. Associations to eating disorders and the denial of self-care are not far-fetched. If the bereaved mother does what she is programmed to do, she will pretend her children are still alive. She will work for them without accepting any rewards. She will continue to repeat this delusional mode of existence until she accepts that her purpose has ended, or until she is captured by a bird of prey; which is how the game eventually ends.

I would like to suggest that this has repercussions of what historian Ann Kaplan (1992) has described as the myth of the self-sacrificing mother whose bereavement can only be understood in terms of the "worst loss" (Rosof 1994). Due to this myth, bereaved mothers are often suspected of never adjusting to the loss of one or several children, and are related to a higher risk of morbid post-loss behaviour (Shear and Shair 2005). *Shelter* reproduces this dominant "maladjustment" narrative of maternal grief by characterising the badger's post-loss life in terms of destructive dissociation beyond repair.

From the beginning of the game, the mother's tasks have been reduced to caring for the children. This is also reflected in a game environment, whose delicacies have been designed to be consumed by the kits. The mother's body, apart from being a vessel of care, is absent as subject for care or concern. Like it, the mother's needs are absent from the game. This game design decision backfires in the situation of full bereavement, where the body of the mother - and her lack of self-concern - becomes visible. It becomes transparent that the badger-as-mother was never designed to have needs, and therefore cannot start to learn to have needs after surviving her maternal role.

As agent without needs, the bereaved mother can choose between two unattractive options. She can either refrain from engagement with the world; stopping to hunt and gather, two activities which signify *care*. The other option would be to live on in dissociation; denying the fact that loss has happened. Since the third option of self-care has not been programmed into her system, she cannot acquire self-care skills. Self-care does not exist on the performative spectrum of a self-sacrificing mother.

There is another interesting aspect of *Shelter*'s ideological underpinnings, which demonstrates how gameplay can repurpose discourses on bonding and grief. *Shelter*'s motherhood discourse is combined with a nature discourse, which according to Killscreen journalist Filipe Salgado conjures up associations to the nature broadcasting voices of David Attenborough and Werner Herzog (Salgado: n.p.). This means that *Shelte*r's anthropocentric ideal of the self-sacrificing mother and the maladjusted bereaved mother are embedded in a "circle of life" narrative, which presents this kind of motherhood as *natural*. This naturalisation does not only serve to silence the mother's feelings and needs, but it also

selectively includes those parts of wildlife which conveniently emphasise the motherhood-as-sacrifice myth.

The aspect of self-neglect and lack of interest in fruits and prey after bereavement is clearly in contradiction with the "circle of life" narrative. To ensure her own survival, a badger mother would start feeding herself on anything she can procure to become fat and attractive for potential mating partners. While there is no doubt that new-born badger cubs are helpless and dependent, there is no immediate reason why parental commitment should continue after death, and why, as a consequence of this commitment, the mother should neglect herself.

This creates a selective discourse on the self-sacrificing mother who is also natural: By presenting a lack of self-interest as natural, it becomes part of the "cycle of life" narrative and thereby something that can becomes silenced as social construct.

What is powerful about this discursive construction of "natural maternal sacrifice" is that it cements the myth through simple economics of gameplay. During the first minutes of the game, we are conditioned to ignore the lack of needs to attend to the mother's body. There is a sense of natural self-neglect. Instead we are concerned with becoming a *good mother*, a mother who devotes her life, beyond the death of the children, to being a good caretaker. On the way, we are confronted with "the cruel unblinking stare of nature" (Walker 2013), but not at the cost of the sacrificial motherhood paradigm. One possible response to this is the experience of shame and guilt over bereavement, often reported in *Shelter*'s online forums.

"I'm a terrible mother" - Negotiating guilt over loss online

We have seen that Shelter's focus on care as priority of badger behaviour comes with two characteristics. First, the uniqueness of a loss situation due to permadeath, and secondly, the lack of "handholding" concerning explanations of the loss. There is no post-loss ritual, no funeral scene that makes sense of a badger's demise. This means that the player is left alone with their interpretation of the traumatic event and must make sense of it alone.

For some players it has therefore been important to share their badger losses with fellow players online. I argue that this is not unlike what constructionist grief

therapy calls “meaning reconstruction” (Neimeyer 2000). According to Neimeyer, the need for meaning reconstruction after loss arises from the fact that the loss of a loved one is also a loss of identity and self-concept (2000: 552). He emphasises that rather than in isolation, attempts to find new meanings are always situated within the discourses, rituals, and cultural traditions of the grievers. (ibid.) On a symbolic level, the internet can be seen as such a discursive space for players trying to make sense of their loss-related feelings.

Since no death is exactly identical, the acknowledgement of a loss requires documentation. But more than that, if a player chooses to identify as the badger mother, their feelings towards the loss need to be acknowledged. This happens through journalistic online essays as much as in the game’s community forum on Steam. Journalist Cara Ellison confesses that “I cry out at my monitor, and a feeling of intense sadness falls around me as only four cubs run up to my side. I feel numb as I carry on, and I wonder if I will get over it.” (2013: n.p), and her colleague John Walker (2013) reports to have felt “shame” over losing a cub. Guilt and shame are also recurring themes in Shelter’s Steam forum. User Psymon writes:

> In my first playthrough I lost Wendy to the river. My heart hit my throat when it made the cry as the wave swept over us all…
> Ian was taken by the bird in the last area. I could tell it was going to happen, and immediatly [sic!] regretted my bad timing.
>
> I'm a terrible mother :C[24]

This dramatic testimony is noteworthy in regard to three things: The use of the pronoun “I”, which suggests identification (Burn/Schott 2004), the tone of self-accusation, and the naming of the cubs. These dimensions are related. By choosing the pronoun “I” rather than “her”, “it”, or “them”, Psymon conflates the positions of the player and the badger mother. The account switches between description of gameplay (“my bad timing”), and description of the narrative (“I lost Wendy to the river”), with emotional phrases (“My heart hit my throat”) to serve as lubricant between player and protagonist. This frames the badger

[24] Online source: https://steamcommunity.com/app/244710/discussions/0/666826250814499557/:

identity as double responsibility as player-mother. In the self-accusative “I’m a terrible mother”, Psymon accepts liability on both levels. This requires that Psymon has internalised the motherhood premise of the game. They take for granted that the kits are unable to sustain themselves, and that dependable action (good timing) is required from them.

Guiding “Wendy” safely across the river, and “Ian” across the hawk area are not merely acts of gameplay; they reflect something about the player's ability to be an empathetic care taker. This can be inferred from Psymon’a “regrets” about bad timing as well as the user’s choice to give the kits names. *Shelter* is used as a platform to negotiate loss-related fears, such as causing the death of a more vulnerable other through neglect or dangerous behaviour. Speaking “through the badger” is used as an update of allegorical fable telling. Like in a fable, the badger’s properties serve to explore questions of ethical and moral conduct without addressing them directly. As transparent from the report, the questions revolve around the ethics of being a *good mother*, and the conditions of failure. Yet unlike written fables, *Shelter*’s gameplay puts the players inside the moral system, where the myth of the sacrificial motherhood and its consequences are experienced first-hand.

The choice to identify with the badger mother, like the choice to name one’s children, is a player-cantered activity, nowhere suggested by design. Nevertheless, some players take naming for granted as common practice, as in the Steam forum thread "What did you name your children, and which ones didn't make it?”. Since naming conventionally takes place at the start of a life, it is expected to take place at the start of a *Shelter* play session as well, indicating the intention to bond. Players are creative in coming up with naming techniques, drawing on the kits’ coat patterns, or naming them after characters from TV Blockbuster series *Game of Thrones* (2011-), which is famous for the merciless execution of key characters. In other words, through creative acts of naming, players display some degree of emotional engagement with the traits of "their children", not unlike people naming their pets. This extra effort of naming expresses an intention of attachment, and the willingness to invest stronger emotions to the loss experience. This is tangible in Psymon’s account, but user Hyde uses a similarly affective tone: “I remember the piercing cry as Splotch was taken, then desperately searching for my little badger, only to realize what had

happened. And then when the water washed over Jeremy..... I was just traumatized."[25]

It would be wrong to say that witness reports like the ones above can only be understood in terms of identification. In fact, dramatic wallowing in traumatic witnessing may also be used for comic relief and emotional distancing. The *Steam* forum thread "GOD WHY?"[26], for instance, is initiated by an author venting their shock over their kit's loss: "o god... o my god! the... the bad bird ate my baby!!!!" The thread subsequently turns into a mixture of other trauma reports, and self-help jargon ("we're here for you"). User Scary Jesus points to the "need to start a support group for this game", concluding: "Guys lets all just be good mothers ok". User Arpogest responds by bringing up the mother's culpability as a predator herself: "How many foxes and little rodents did you kill through the game, how many families did your mother-badger ruin? :)". This puts a new twist on the guilt question, having Cougarific conclude "o god!!! now we need a carnivore-guilt support group!!!".

In contrast to this emotional mode of retelling, the second type of report constructs loss as a technical subject, frustrating to an emotionally distance, mastery-focused gaming discourse. In this discourse, practices of naming are absent, and even explicitly opposed, as in User Deadpan Serious' comment: "i'm so glad i never named them. i lost the first simply because the AI pathfinding must have got it stuck and when i counted only four cubs i went back but never found it."

Seeking distance through technical discourse, Deadpan Serious rationalises the refusal to be emotionally involved as refusal to deal with malfunctioning software. This expresses a different expectation about gaming as a means to achieve emotional distance to real-life emotion. As already mentioned, *Shelter's* many glitches and pathfinding errors introduce sudden, unexplained deaths. As a response to Eurogamer's *Shelter* review[27], user chop-chop complains that

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[25] Online source: https://steamcommunity.com/app/244710/discussions/0/666826250814499557/:

[26] Online source: https://steamcommunity.com/app/244710/discussions/0/864977479829251642/:

[27] Online source: http://www.eurogamer.net/articles/2013-09-11-shelter-review

> "[m]y first cub died because of poor game design. In the 2nd level… while I'm grabbing some food, one of the cubs gets snatched without warning. No sound, nothing. Just the sound of the wolf enjoying his meal. Cool. My 2nd cub died because of a bug. He got stuck in an endless running animation in the middle of a river, where the 3 other cubs and myself walked just fine, and of course got killed by the incoming wave. What's even worse than the death of this little cub, is that I think my interest for this game died with it…"

In this report, badger death is framed in terms of a technical error. Instead of blaming themselves and their failing mothering, the user blames "bad game design", the lack of feedback, flawed animations, and glitches for the loss. In comparison with Psymon's reconstruction of meaning, where the player "lost Wendy to the river", chop-chop constructs emotional distance by focusing on the technical side of drowning, the "endless animation" beyond his control. Rather than a dramatic trauma report, affecting the player-badger emotionally, loss of control over a badger's life is nothing to be playfully appropriated. On the contrary, the loss of control over life is the loss of interest in the game.

I would like to suggest that on a broader scale, these two types of meaning reconstruction say something about player-specific attitudes to representations of grief. Do players see their medium in terms of an invitation to live through someone's life; experience someone's perspective? The first kind of witness report answers this question positively. The proposed guilt narrative of maternal grief is accepted as experience to empathise with through gameplay dynamics. The second kind of narrative shows, however, that some players prefer to reject the negotiation of real-life experiences through games. Games are expected as medium to provide them with control over life; and it this control is taken away, gaming is experienced as "unfair", as "badly designed". From one perspective, it is "life" or "nature" that's unfair, from the other one it is the game designer. Whether as dramatic confessions of parental guilt, or as rationalisation of technical errors, *Shelter* has encouraged players to engage in traumatic retellings, and players' bonding over ambiguous loss situations. This reflects, if anything, that players' are creative co-creators of the grief narrative.

2.5 PLAYING COMMEMORATION: SIBLING LOSS IN *BROTHERS: A TALE OF TWO SONS*

Introduction

Brothers: A Tale of Two Sons (2013) by the Swedish game studio Starbreeze is a heavily story-driven 3D adventure game, currently available for the Sony PlayStation 3, Microsoft Xbox 360, and Windows PC. In it, the two titular brothers are navigated through an epic, tightly regulated fairy tale journey, travelling through enchanting villages, deserted battlefields, experimentation sites, caves and castles, in an attempt to procure medicine for their mortally ill father. Fear of loss as narrative driver is not the only death-related theme appearing in *Brothers*. The game starts with the traumatic loss of the mother, and ends with a family grief scene at the grave of big brother Naiaa.

In this chapter, I focus primarily on sibling attachment and loss, since this is what gameplay revolves around. Unlike any other games discussed, *Brothers* features what the makers call "co-op play in single player mode"[28]. This means that both brothers are controlled at the same time, negotiating their relationship on the level of gameplay. Most of the game's puzzles require a combination of the brothers' skills, resulting in an integration of gameplay progression, player character development, and environmental storytelling (May et al. 2014).

After introducing the premise of the game, I will look at four devices constructing a notion of fraternal bonding. On the level of rules and mechanics, *Brothers* is all about constructing *synergy*. This means that interaction is balanced between the brothers, producing a sense of fair collaboration and eye-level relationship. I will look at two ways *synergy* is expressed through mechanics; symbiotic action, in which each brother carries out a unique action which complements an other, and synchronic action, in which the brothers carry out the same action together.

Following this, I will discuss Brother's unconventional control scheme, the *tandem controls*. I argue that this design device characterises the brothers in terms of shared identity, equal power, and autonomy. Third, *markers of gender* reinforce a sense of male bonding through the strategic othering of female

[28] Online source: http://store.steampowered.com/app/225080/

characters. This othering happens on two levels, by declaring women either passive decoration (the ghost mother), or vilification (the spider woman), a treatment that impacts the framing of loss and grief later on. Finally, I observe how *age* is expressed through size and appearance, but also through spatial composition. Like in *Passage* the left-right axis is used to express New and Given (Kress/van Leeuwen 2006), expressing a sibling birth order between younger and older brother.

The second part of this chapter discusses the composition of the loss scene proper, especially how the alteration between non-ergodic cut scenes and playable burial sequence suggests an engaging alternative to dominant methods of making grief reactions playable. To demonstrate this, I will compare the burial scene to the game design trope of "Press X to pay respects", problematising the assumption that pressing a button equals player empathy. *Brothers* proposes an alternative model, making post-loss shock playable as monotonous, menial procedure. It stresses the experience of numbness, and life's simultaneous demand to respond to bereavement through physical action.

Finally, the game proposes an interesting strategy to model practices of remembering the dead and *continuing bonds* after death. Since each controller hemisphere stands for one brother, the absence of big brother is used as design opportunity to work with visual versus haptic sense of presence. I will discuss how these *commemoration controls* address two phenomena in grief literature: The idea of "inner representations" in Klass (1993), and the continuation of bonds, identified as important in sibling loss (Packman et al. 2006).

Exposition

As soon as *Brothers*' bold-lettered title fades in, adorned by playful meanders, associations to fairy tales arises: The title could be found on an old book cover of the Grimm's tales, and resembles the title screen of *The Path* (2007), a horror game take on the fairy tale *Little Red Riding Hood*. Selecting "play" from the menu initiates a cut sequence in which we see a blond boy kneel in front of a gravestone, overseeing a spectacular montane landscape. We hear a slow, elegiac folk melody set in a minor key. The sostenuto strokes of a viola and the high-pitched female voice continue as a flashback gives us a glimpse into the context of grief: We see the boy stretch out his arm from a tumbling boat as his mother's

body is pulled away by the sea. This traumatic witnessing of maternal death will serve to establish the boy's fear of water later on. He is pulled out of his revery when his big brother calls him from off screen. As the camera pans to the right towards the boys' house, we see big brother help the mortally ill father unto a wheelbarrow. Then the camera swings over to the path leading from the house into town, showing the direction of gameplay progression and switching into ergodic mode.

The prologue starts. Two visual prompts appear, instructing novice players to control "big brother" by using the left thumb stick and trigger button, and "little brother" via the same controls on the right side. The two suspicious handles on the wheelbarrow indicate that the brothers must be navigated to either side in order to transport the ill father to town. Some more obstacles are introduced on the way: There is a bridge controlled by a lever, which only big brother can operate. There is a ledge, which little brother can jump if pivoted by big brother. These coordination exercises serve to establish Brother's core mechanic of environmental exploration and contextual action (May et al. 2014).

As the brothers reach the medic's hut, another cut sequence informs us about the game objective; travel to the Tree of Life to procure medicine for the perishing father. As the reason why we do what we do, this is already a bonding motif: The brothers lost their mother already; they cannot afford to see another family member die. Furthermore, the endangered attachment figure is their male role model, marking the adventure as a project to bond over and restore a troubled sense of masculine identity (whether or not it succeeds is a different question). At its core, however, the game revolves around the sibling relationship, and the way it is negotiated through the brothers' different skills and roles.

Game scholars Aaron May et al. have argued that that besides physical characteristics, *Brothers* uses contextual action to portray Nyaa's and Naiee's personalities (May et al. 2014: np). They observe that simultaneous real-time control over the characters enables the game to anchor their similarities and differences in environmental and social contexts. Not only does the brothers' reactions to ledges and levers differ; the game also contains a number of NPCs whose presence triggers specific types of action depending on the brother. Based on these observations, learning to read *Brothers*' environmental cues is not only a

means for progression. It is also a means for storytelling. That big brother is the only one able to push the lever means that he is stronger than little brother. That little brother will sneak through fences and iron bars does not only make him the "little one" but also the "bold one", the "sneaky one". This demonstration of storytelling through repetitive action challenges the well-established game studies assumption that pattern repetition and narrative are naturally opposed (Lindley 2002, Kirkpatrick 2011). Exemplary for this is Lindley's claim that "repetitive patterning involved in gameplay gestalt formation is found to undermine deep narrative immersion" (Lindley 2002: 203). In contrast to this, *Brothers* uses repetition to help us understand the brothers' personalities, and how they function as siblings in their cooperative brotherhood project.

If play is simultaneously also narrative, who tells the story? As players, we are put in the shoes of the brothers, but also slightly besides them. We are the lubricant facilitating the relationship between the brothers and the environment. We learn about them with them and through them, but their abilities are prefabricated, and we must learn to read, rather than build them. They are what Burn and Schott would call "heavy heroes" (Burn/Schott 2004).

Attachment

In regard to fraternal bonding, the single player co-op set up comes with interesting opportunities for game design. Navigating two characters around affords a different kind of investment, both in gameplay and the relationship emerging between the characters. I will look at these dynamics in terms of five devices, synergy rules and mechanics, tandem controls, the spatial elastic bond, and markers of gender and age, suggesting that they articulate a notion of male sibling attachment.

Synergy

On the level of rules and mechanics, efforts are made to characterise the brother relationship as synergetic. This is done through what May et al. (2014) have called contextual action. Contextual action, the situation-specific activation of a game object, can have two functions. On the one hand it can express a unique skill of one brother, as in the example of the lever, which only big brother can control. On the other hand, there are objects like the wheelbarrow which must be operated by both brothers at the same time. Depending on the gameplay

situations, these two functions of synergy must be combined to find out what to do.

fig. 2.10: A tandem contraption in *Brothers*

When it comes to unique contextual actions, these are always balanced between the brothers to make them contribute equally. For example, big brother's lever-handling skill is complemented through little brother's ability to slide through narrow fences and bars. We first learn these individual skills in separate occasions during the Prologue, before they merge into combination puzzles. Releasing the giant from the cage in Chapter 2, requires a combination of previously learned contextual action vocabulary: Little brother needs to sneak through the fence to steal the guard's key and lure him into the cage, while big brother is responsible for opening and closing the cage door. In order to master this symbiotic teamwork task, we first solve the puzzle conceptually by recognising what each brother can do, and then solve it spatially, through correct timing and action.

The game also introduces situations in which synchronised movement is required. Unlike symbiosis, which emphasises difference and complementarity, synchronicity emphasises what is shared. At all stages during the game we encounter suspicious two-handle contraptions like the wheelbarrow intended to be operated by two brothers at once. The mentioned cave in Chapter 2 is especially sprinkled with two-person contraptions, such as the prominent crank lifting a platform in fig. 2.10. While the game does not obscure these objects are

fig. 2.11: The rope-swinging scene in *Brothers*

made for two, their specific functions have to be learned and "practiced" in order to solve the puzzle.

This also applies to social situations. At the end of the Prologue, the boys meet a sleeping bridge guard who must be convinced to lower the bridge. If big brother's contextual action is used, the boy will politely address the man, which proves ineffective. If we interact as little brother, the boy will pour a nearby bucket of water over the man's head, waking him up, and making him available for big brother's more constructive request. In social situations like this, the game engages the player in a back and forth between big and little brother's contextual actions, making us guess which one is more effective. Additionally, it characterises the brothers' personalities in a way which is consistent with other social encounters.

Over the course of the game, we learn that little brother is more childish, playful, and sneaky, while big brother is more serious, mature and solution-oriented. Again, nuances emerge from repetition, as in the case where numbers and algorithms express personalities (*FFVII*). I would like to argue that from this combination of symbiotic and synchronic tasks emerges a sense of equality. As players we are repeatedly told that the brothers share not only space for action, but initiative, and that without mutual initiative, progression wouldn't be possible.

Tandem controls

Brothers' control scheme has been rightfully acclaimed for its intuitive use of the Xbox 360 controller and its mapping of both brothers' simultaneous actions. What could have become a confusing, hard-to-handle setup is made accessible through comprehensive spatial design, especially through the controller's narrative division into left and right hemispheres. Here, the designers took advantage of two features; the symmetrical layout of the Xbox 360 controller, and the fact that, unlike other controllers such as the Wii mote or the PlayStation move controller, it is intended to be held in two hands. *Brothers* takes advantage of this by allocating the two brothers to one respective side of the controller, and by proxy to one hand of the player.

This mapping has various effects: First, the controller becomes the haptic proxy of the brothers' shared identity space. The controller stands for the brothers' shared agency, allocating a thumb stick (movement) and a trigger button (interaction) to each character. Secondly, this equitable distribution of controller space among the brothers indicates that they have an eye-level relationship. Even before we know specifics about each brother's character traits, we feel that they are similarly important. Thirdly, the designers could have chosen to represent both brothers' actions on the same button. What they did, however, was to split the controller space in two, and thereby emphasising the brothers' differences. Like the player's hands, the implication is, the characters are not identical; they will take on different roles, carry out different tasks, and come with different tastes and levels of maturity.

This is an important part of the brotherhood gestalt: There is a shared space, distributed equally, but inhabited in different ways. Finally, Brothers' control layout affects the way players manage them on-screen. Since we experience bigger brother on our left-hand side, and little brother on the right-hand side, it makes sense to align their positions to visually match this experience. The control scheme thus imposes a certain sibling constellation, which, deliberately or not, matches visual grammar conventions of presenting old, established information to the left (big brother), and future-related new contents (little brother) to the right side of the image.

Furthermore, the division between left/old and right/young coincides with the convention to map orientational action, like walking or adjusting the camera on the left, and initiative action, like fighting, picking up objects, interacting with people , and commands on the right hemisphere of the controller[29]. This adds a division into "orientation" brother versus "initiative" brother, which is in line with the unfolding of the plot. In fact, as holder of the Tree of Life map, big brother is established as the team's guide early on, while little brother will have to use his initiative to finish the adventure on his own. Arguably, these subtle connotations will only be accessible for players familiar with dominant mapping conventions of console games. For such players, however, Brother's particular right/left division adds a nuance to the brothers' character traits.

Space

Like in *Ico* and *Shelter*, bonding rituals are realised inside the affordances of a 3D space. As previously discussed, these games feature different ways to regulate inter-body space, using an *elastic bond* (Ico) or a programmed *invisible bond* between the character (*Shelter*). *Brothers* uses a combination of these devices. The *invisible bond* device is used to regulate the maximum distance between the character. Like in *Shelter*, this constructs a notion of normalcy: The brothers simply stick together because they cannot be apart. On the other hand, the player needs to interpret what to do within their defined "sibling space". Again, an ideal solution emerges from the tightly authored puzzles, and the affordances of left and right controller space.

Contextual action allows the game to play around with different spatial constellations. While the brothers usually walk side by side, there are situations in which one brother must take care of the other. Two examples are the swimming sequences, in which little brother has to hold onto big brother's shoulder due to his post-traumatic fear of water, and the campfire scene, in which big brother must fend off wolves with a stick, while little brother hides behind him. These situations are similar to the shadow fight dynamics in *Ico:* Yorda, too, needs to be kept close, and like in the case of her demise, an attacked little brother means game over. However, there is a significant difference. In *Brothers*, both characters always actively take their roles, even the role of hiding behind a

[29] Examples for this convention can also be found in both console games, *FFVII*, and *Ico* discussed in this thesis.

stronger brother, or fearfully clinging onto his shoulder. By comparison, we do not have to make Yorda's fearful jump. Her role is not actively taken, but merely is witnessed through the eyes and the agency of Ico.

The possibility to take both roles in the experience of sibling bonding is also important in the rope-swinging scene in Chapter 3 (fig. 2.11). In this scene, the brothers tie a rope around their waist to secure each other while climbing the castle ruins. The sequence starts by jumping the brothers onto a ledge, holding both triggers. The rope will dangle loosely between the them until one trigger is released, causing the respective brother to fall into the rope. The dangling brother is now free to be swung around, using his thumb stick. When he reaches the next grappling point, the player can cling on to it by pressing the trigger. Now the opposite brother needs to let go, while the other brother secures him, and so on.

Performing this swinging ritual is the climax of the brothers' trust exercises in a double sense. In a narrative sense, the brothers demonstrate their mutual trust by putting their lives in the hands of the other. On the ergodic level, these are the hands of the player, who is trusted to have mastered the controls at this point in the game. The successful coordination of the bodies requires literacy on which button directs which body. That the roles of dependable securer and exposed hanger are changing is additionally challenging, but it also reinforces the message of sibling equality: It shows that no difference in their personalities prevents them from experiencing times of weakness and strength; times which require being supportive, and times which require letting go and trusting in being held. The player is this lubricant holding the vulnerable brother as the strong other.

Gender

Thirdly, the bonding project between the brothers is implicitly and explicitly also a gendered project. There are two ways in which the game *others* female characters in order to expedite sibling bonding as male bonding.

The first kind of othering is used in the portrayal of the dead mother, who appears as a ghost at various stages in the game. This presence of the ghost mother has two functions: First, she illustrates the possibility of parental loss, introducing the fear to lose the father too, and secondly she serves to establish little brother's fear of water. In either role, she appears rather than acts (Mulvey 1999), and we are not encouraged to interact with her. Rather, her appearance

impacts on the brother's mutual relationship: Due to little brother's trauma, big brother can offer a shoulder to swim both through water. In gameplay terms, the mother's life is traded for coherence of the swim mechanic, and to foster closeness between the brothers. The appearance of the mother's ghost has no impact on gameplay itself. It only serves as decoration, and as narrative cue reminding us that the boys are bereaved.

The second type of female othering happens in the portrayal of the antagonistic spider woman in Chapter 4. Here, the woman does act, but it is a toxic action responsible for big brother's later demise. The spider woman first appears as young seductive woman who lures big brother into a cave, where she transforms into a venomous spider. Helped by little brother who is caught in a cobweb, big brother needs to subsequently pull out the spider's legs to "disarm" the woman.

This presentation repurposes the *vagina dentata* myth, in which a "mysterious, cavernous, unpredictable, dangerous" female must be destroyed (Raitt 1980). According to historical theologist Jill Raitt, *vagina dentata* tales often represent the normalisation, or eradication of dangerous female sexuality symbolically through the removal of teeth. The spider woman in *Brothers* does not only lose her legs through a cruel act of mutilation. It is notable that this work is also done by a male teenager whose awakening sexuality was responsible for entering the spider's cave (sic!) to begin with. His penetrative act is punished by the game's sweeping moralising gesture; death from poison. Moreover, it confirms the castrating power of female sexuality in inducing real agency loss. Henceforth, little brother has someone and something to blame for the loss of the brother.

Age and birth order

Brothers uses age as a device to construct a specific sibling constellation and underscore the brothers' different behaviours and personalities. It is articulated through two aspects of the characters' bodies; their size and their location in space.

As for size, it matters simultaneously on the diegetic and mechanical level, to characterise differences between the brothers. When we learn about their contextual actions we do so empirically, through their embodied relations to the environment, as small body and big body. We learn that compared to small

bodies, big bodies are strong but less flexible. This constructs age as a spectrum of different abilities and limitations. To be older does not necessarily mean to be superior. Although at times, little brother is more anxious and needs to be protected by big brother; as in the campfire scene in chapter 3, the game treats age differences in a non-judgmental way.

Size and its affordances aside, the game imposes a sibling order through the way the brothers are supposed to be managed in space. I have discussed how the tandem controls introduce a notion of shared yet autonomous agency by separating the controller in left and right hemispheres. I have also mentioned how this division encourages the positioning of the brothers in "their" spaces. On the symbolic level, this division is yet again in line with Gunther Kress and Theo van Leeuwen's (2006) New/Given dichotomy, a dominant convention in visual grammar. As explored in the chapter on *Passage*, established and taken-for-granted information - the "Given"- is conventionally presented on the left side of a visual composition, whereas new and surprising information - the "New" - is presented to the right.

In *Brothers*, this division coincides with the birth order: The older, more established sibling, big brother, is mapped to the left controller hemisphere, and the younger, newer sibling to the right. Since both characters are controlled in a 3D space, it is possible to resist this suggestion, and navigate the brothers wherever the player likes. However, I have mentioned that this comes at the cost of a more difficult navigation: One would have to carry out an action with the left hand, while seeing this action happen on the right side. The easier option is to submit to the "socially imposed" family order, since "resistance" reduces the chance of mastery. In other words, the game insists that "knowing one's space" as older or younger sibling is important to maintain a relationship.

Fraternal Loss: Big brother's burial

Brothers is most explicit in how it expresses reactions to loss in gameplay. This is particularly obvious in the game's dramatic peak, the death of big brother under the Tree of life. It is instructive to take a closer look at the devices used during this pivotal moment, particularly the shift between non-ergodic cut scene and playable sequences. I argue that the composition and pacing of this sequence

constructs a farewell ritual, which presents an alternative to game designers' tendency to model grief through Quick-Time Events (QTE).

QTE are linear cut sequences frequently interrupted by prompts demanding player input. In games such as *Batman: Arkham City* (2011) and *Call of Duty: Advanced Warfare* (2014) this mechanic has been used to make the player "pay respects" holding a single button. This attempt to capture grief through a mechanistic, extrinsically motivated action has been mocked by players and game journalists who have called this the "Hold X to Pay Respects" mechanics (Hall 2014). Polygon journalist Charlie Hall points to the underlying irony of this device, noticing that "games like *Call of Duty* often try to straddle the line between respect for real soldiers and their losses, while also doing everything they can to romanticize the act of war" (Hall 2014). Just as war is trivialised by reducing it to rapid fire action, grief is depleted of substance by reducing it to a prompted QTE. One possible conclusion is that using interreactivity to represent grief naturally leads to trivialisation (Grant 2011). This is challenged in the following burial scene in *Brothers*.

Leaving the spider web, a significantly weakened big brother has to be carried towards a slope that lands the boys directly to the Tree of Life, the designated goal of their journey. At the roots, big brother eventually collapses after handing little brother a flask and pointing him to fetch the wanted medicine via a short cut scene. This is the last time, big brother is seen alive. As we navigate little brother up the Tree of Life, illuminated by a breathtaking, hope-inspiring aurora borealis, we are for the first time controlling a single brother. Little brother's emotional landscape is expressed in three ways; through a spectacular, yet calm audio-visual surrounding, a smooth, unblocked path, and the spatial metaphor UP IS GOOD (Lakoff/Johnson 1980). On the way into the tree's crown, we pass a giant bird's nest which seems to belongs to a griffin[30] we freed from a giant's cage earlier on. Way up inside the tree's crown, we collect some of the desired medicine, sparkling in a fluorescent turquoise. From there, little brother slides down the tree, while the music stops.

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[30] Within heraldry, the mythological animal of the griffin - a creature consisting of half bird, half lion - carries medicinal connotations (Friar 1987: 173) used in *Brothers*. Within the game, the griffin's wounding metaphorically repeats *Brothers*' central conflict: Illness, the (potential) death of a loved one, and the lengths we will go to prevent it. The caged griffin points to the theme of health in danger; liberating it allows little brother in the end to procure medicine for his father.

As little brother lands on the ground, the first cut sequence starts: Little brother approaches his brother's lifeless body, and starts attempts to resuscitate him with a few drops of the medicine. When this measure fails, and little brother breaks down to cry, the high pitched grief theme sets in, and the camera slowly zooms into a blackout. The next shot has an undeniable resemblance to *Ico*'s post-loss low-angle shot exposing a changed environment. Like in *Ico*, it rains, a device which conveniently washes out saturation to match little brother's emotional state. We see him contemplate his loss, while the camera zooms out and big brother appears through a vision. While offering his embrace to the surviving brother, the camera takes time to pan a full circle around the siblings, and then big brother is gone. After a blackout, suggesting that the rain has subsided over night, we find little brother put the final touches on what seems to be a freshly-dug grave.

A burial is about to take place, but instead of including it into the cut scene, the player takes over from there. In this critical moment, both brothers are framed in one shot, little brother facing the direction of the dead body in the distance. This visual composition suggests that big brother's body needs to be carried to the grave, using little brother's controls. While walking, we notice the slowed-down pace of little brother, as he puts one step before the other, shaking. When reaching big brother, the right trigger is held to pull the body across the ground, towards the hole. Once little brother grabs onto the corpse, his sobbing noises increase in an otherwise silent environment. Via an animation, little brother adjusts the position of the corpse before he leaves the pit, suggestively positioning himself in front of one of the suspicious soil pile encircling the grave. Gameplay ensues, and it is again the player who needs to initiate the placement of soil on the body. This can not be done in one go. Little brother must be navigated around the grave in a monotonous walk, pushing one pile at a time into the grave.

This scene represents bereavement as an active, material process. Big brother's corpse does not disappear. It fills up space, functions as game object, and must be taken care of by the surviving brother. Furthermore the material act of taking care of the remains is presented as slow, menial task. Little brother's walk takes time; he must push each soil "item" individually into the grave, move on, push the

next soil “item”, and so on. Thus, the effort invested in “closure”, the covering of the entire body is framed as journey, ritual rather than single moment.

The "burial challenge" is not time-based, allowing the player to grapple with the situation in their own time. Furthermore, there are no explicit prompts about what needs to be done, allowing the player to explore actions upon their own initiative.

Mechanically speaking, the burial isn’t particularly exciting, but it is effective in communicating the boy’s ordeal and effort. That little brother’s actions are overly mechanical - putting one step after the other, pulling brother, pushing soil, one after the next still mechanical - resonates well with the context of his recent traumatic bereavement: He just functions, and we are invited to suffer through this with him. Apart from that, the decision to not only display a dead child on screen, but to enable interaction with it, breaks with the trend to mystify child death through flowery symbolism (a red balloon in *Heavy Rain (2010)*, a teddy bear in *Watch Dogs* (2014)), or silence it altogether, as most of *The Sims* titles[31]. In Brothers, we get to deal with a corpse, and its transport from A to B.
The relevance of this portrayal is demonstrated best when we look at players’ responses. “At least we have time to say goodbye”, says YouTube star Joseph Garrett, whose Let’s Play videos are targeted at a young audience. This is the moment in which he drags the lifeless body of big brother towards the grave. He continues:

> This is all because of that spider woman. We should have just left her when we saw her. We shouldn’t have meddled in other people’s business, you know, assuming that all the men were mean and they were trapping this woman. We should have just walked on by and we would have been fine.[32]

The meditative task of the burial leaves enough time for contemplation and regrets. There is space to gather oneself, work through what happened, and utter

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[31] With the exception of the first *The Sims* title, the death of children is made impossible in this series, otherwise known for the many creative ways players are invited to kill their characters.

[32] Garrett’s walkthrough can be watched on YouTube: https://www.youtube.com/watch?v=rUoHvcOfaCk

a first emotional response. In this case, the response is anger and regret to have fallen for the spider woman's tricks. Bonding around gender identity, the YouTuber confirms solidarity with his brother. Another thing this comment encourages is the mitigation of rape culture (don't meddle in other men's business), a reading which through YouTube becomes available as interpretative template for several thousands of viewers. To be fair, the construction of the spider woman's impact and big brother's death doesn't leave much room for speculation: The player is locked in a tight meaning system explaining causes and effects of big brother's death. This could have been different would the cause of death have been left more ambiguous. Rather than righteous anger, emotions could have included helplessness and emptiness.

Mechanics of Commemoration

The burial is followed up by another cut scene. The camera zooms out, overseeing the Tree of Life for the first time, while a soft guitar melody sets in, followed by a bird scream. We recognise this scream from the injured griffin we rescued before, and which now arrives to take little brothers under its wings, and offers him a ride back home. As an orchestral piece builds up into a crescendo, the griffin takes us across parts of the landscape, revisiting some of the places the brothers have visited together.

This short moment of remembrance ends in a sunset, after which we find little brother, completely alone in a rainy, stormy night. In terms of atmosphere, this might be the actual parallel to *Ico*'s transition from the castle into the cave. The camera briefly establishes that the medic's hut is within eyesight, but in order to reach it the boy needs to swim across the town's creek. Knowing about his phobia, and familiar with the fact that the boy requires his brother's shoulder to hold on to, this task seems impossible. The events to follow can be unpacked along the grief theoretical concepts "inner representations" (Klass 1993), and "continuing bonds" (Klass 1996 et al., Packman et al. 2013).

When we trigger little brother's contextual action in front of the water and attempt to go inside, he will, as always, refuse. The player has to find out that, additionally, big brother's action button needs to be held. In the moment they do so, little brother overcomes his fear and enters the stormy waves, accompanied by his brother's whispering voice. Pressing big brother's button while swimming as

little brother feels like remembering *what the dead would have done* were he here with us. Big brother is needed, but he is gone, so little brother's only choice is to take over his role. This process is not straightforward, but involves a change in the controls. The player must understand that big brother's action repertoire is now embodied by little brother.

It is worthwhile taking a look back at Klass's (1993) inner representations and their purpose of integrating the spirit of the deceased in the life of the bereaved. After big brother is physically gone, his trigger button becomes his "inner representation", retaining importance in little brother's life. This importance is expressed through impact on gameplay. Using big brother's button to assist, little brother succeeds to swim through the creek. This success is observable from the outside world by potential bystanders watching the game being played. However, big brother's *presence* can only be felt by the player pressing down their left thumb. They are the only ones to *feel* big brother's contribution to the things they do on screen[33]. This is not unlike the experience grievers describe when talking about their dead loved ones: As "inner representations" they are tangible to the grievers, while invisible to the outside world (Klass 1993).

The scene also evokes the concept of continuing bonds, the reluctance of a griever to relinquish bonds after bereavement (Klass et al. 1996). Compared to *Passage*, where continuing bonds is a choice of the player waiting for their own death to happen in front of the spouse's gravestone, *Brothers* characterises a sibling bond after death as necessary requirement for little brother to continue. This is in line with the importance of continuing bonds in the sibling loss literature (i.e. Packman et al. 2006).

Packman and colleagues have observed that the quality of a post-loss bond between siblings differs according to individual, social and environmental factors,

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[33] This does not apply to player settings in which the controller is shared by two players. Numerous reports exist of this mode of play, and they share the experience that losing each other has been difficult. In this constellation, the intimacy between the fictional brothers is directly transferred to the real-life player relationship. What do they do after big brother dies? Does the dead brother-player remove his hand from the controller, leaving, for the first time, the full weight of the controller to the other player? Does the hand stay on the controller in the hopes that something more will happen? Although the meaning of "inner representations" might not be as pronounced in this constellation, the two-player setup seems to amplify, rather than challenge the gravity of the loss experience (i.e. as reported by user fuze 9 on https://www.gamefaqs.com/boards/684836-brothers-a-tale-of-two-sons/68812082).

such as sibling order, quality of relationship between the siblings, and the question how the loss happened and how it is negotiated by in the family. In *Brothers*, we see an unproblematic, supportive brother relationship, which has been constructed around complementary, non-rivalling abilities, a taken-for-granted physical connection, and a shared gender identity. What connected the boys further is the fear of losing the father figure. Loss is inflicted by traumatic wounding by a female "other", fostering bonding *brother*hood (rather than merely being siblings). Since age has been firmly established both through action, visuals, and space, it is important that with the older, more established Given brother, the loss is characterised as loss of a role model rather than of a protege (Packman et al. 2006).

A second factor identified as important in continuing bonds is that the bond develops slowly over time, not as something that immediately arises at the time of death (ibid: 836). To craft a connection after death, siblings "puzzle over who they are now and how they are different without their sibling's presence" (ibid: 834-835).

In *Brothers*, the act of "puzzling" is taken literally, as players adapt to the new rules guiding the absence and presence of big brother. After his death, big brother is permanently absent on the visual level, but haptically present when little brother faces an interactive object that used to trigger big brother's contextual action. In a process of adaptation, players must find out that even in big brother's absence, his contextual actions can be carried out with little brother if the player presses both action buttons at the same time. Instead of using a prompt after big brother's death, the player is left to figure this out through experimentation. Thus, forging continuing bonds is portrayed as process rather than straight forward command, i.e. "Press X to remember big brother".

Thirdly, Packman et al. point out that continuing bonds are expressed through siblings continuing to think about their brothers and sisters at special occasions, during important life events, and might keep evocative objects reminiscent of the lost sibling (833). In *Brothers*, this is expressed through game objects which big brother could operate, either in tandem with little brother, or complementary to his skills. Facing the lever after big brother's death does not only evoke a memory of big brother's loss but also his skill set, his character. On the level of gameplay,

the need to think about and learn from him is naturally implied: The player either understands that little brother has to do what big brother would do, or he would not progress in the game. The notion of memory and personal growth are elegantly combined through a re-contextualised big brother button: Pressing it feels like stepping in big brother's shoes, and thus like overcoming obstacles that were insurmountable before.

Packman et al. (2006) report that some siblings felt their experience facilitated the development of a sensitive outlook on life; and their learning had been enriched in the sense that they had matured and they felt better about their abilities to handle adversity" (828, see also Davies, 1991, 2002). In *Brothers*, this growth is expressed most literally through the taking over of big brother's tasks. With one brother gone, there is room for little brother to "expand" to the left side of the controller as well and slowly learn to become the more mature Given sibling. As Packman et al. point out "growth may begin even before the death" (828); little brother had ample opportunity to learn what one can do as a big brother, so when separation occurs, he is prepared and able to get on without the other sibling's physical presence.

Family politics of being dead: brothers act, mothers appear

The tandem control as a powerful tool to integrate a character's presence in the world is best illustrated if compared to a merely visual strategy. Unlike big brother whom the designers made to matter long after his death, the mother's impact is made less important by keeping her presence confined to the visual level. From the beginning, mother is staged as spectacle of a ghost. Her impact on gameplay is marginal; her death serves the establishment of little brother's water phobia and the overall tragic tone of the narrative. Big brother, by contrast, is firmly mapped onto the controller, and therefore owns agency. He does not even *need* to appear after death; he shows himself through action. In other words, there is a gendered hierarchy between who is allowed to "be here" and who just "watches over" the living after death.

In fact, being dead as mother and brother is expressed via complementary strategies: Big brother does not even have to appear as a ghost; his presence is firmly established on the haptic dimension of gameplay. By contrast, the mother

is excluded from the controller to begin with, her purpose is to add tragedy, not to own space.

Overall, *Brothers* incidentally creates a gender politics of being dead, according which male ghosts exert influence and female ghosts appear. The convention of the male gaze (Mulvey 1999, Berger 1974) seems to defy death. The subtle gender differences of being dead reflect in YouTuber Garrett's wording: When he promises his audience that big brother is not alone but protected by his family, he says that the mother "watches over us", while big brother is "there" with us.

Before little brother finds home, big brother's "being there" is demonstrated in two other instances; the lever, and the tandem ladder, both of which little brother activates with great effort when the player presses both triggers. These are objects which we have previously seen used either exclusively by big brother (lever) or through teamwork (ladder). Little brother has given his all, and, upon reaching the medic's house collapses on the floor.

In the game's final scene, little brother wakes up by the sea, next to a pile of pebbles, ready to play with. We can either partake in a meditative round of pebble throwing - an activity celebrating the boy's new-won playful relationship with water, or make our way up towards the town. The weather suggests that things are back to normal, and when we take the first bend, we see father's silhouette at mother's grave. As the player approaches him, they notice a second, smaller gravestone, and when they decide to join father's grieving moment the last cut sequence starts. As the two characters face the graveyard, spectacularly lit through the tree's leaves, the game's melancholic theme sets in. This is the moment emotion overwhelms the father and he breaks down in tears, comforted by his remaining son. The camera pans into the sky, towards the mountains, and we see the griffin fly off for a last time towards the Tree of Life.

2.6 DISCUSSION

By looking at what video games have already done to model these subjects on an ergodic spectrum, the previous chapters have identified some devices and the way they make space for player projections. The intention was both to contribute to the growing body of game analyses which address video games as cultural text (i.e. Smethurst 2015), and to provide a pragmatic starting point for grief-based game design. Apart from making strategies available for my own design-based case study to be discussed later, the hope is that other game designers will find the suggestions in this chapter useful for their own practice.

Past chapters were exhaustive in their treatment of single games, aiming at a deep understanding of design devices at work. The discussion ahead reviews my findings in a more pragmatic light as it might matter for game designers interested in refining portrayals of attachment, loss and grief dynamics between characters. The chapter first discusses the expressive devices I identified along five game design dimensions; rules/mechanics, control scheme, space between bodies, character design and aural representation. Rather than comprehensive, these dimensions emerged from my observations of the five single-player video games *Final Fantasy VII (1997), Ico (2001), Passage (2007), Shelter (2013), and Brothers (2013)*. The idea is to hint at possible strategies which have communicated versions of love and loss compellingly, and which can be - with critical revisions - learned from for future game design.

As should be clear by now, the choice of game design devices influences how games divide social power among characters, who the player is encouraged to side with, and through whose perspective and body a grief narrative is told.
I have observed that rules and mechanics regulate the gameplay bonding rituals constructing reasons to care for an other. By defining what we can and cannot do, game systems do not only constrain possibilities, but incidentally construe motivations for attachments. These motivations cannot be divorced from the players' social background, and existing cultural notions of dependency, friendship and responsibility.

While rules provide the set-up for social roles, it is also important how performing these roles *feels*. This is where controls come in, and their ability to

hapitcally involve the player through interreactive options. Through control devices, game designers can model notions of presence and absence. Control schemes regulate who acts, and whether agency is distributed equally or unequally among characters. A character whose presence is tightly integrated in the controls will be physically missed when removed from the game.

In *video game*s, the way we experience the other as present or absent is also a matter of what we see on screen. Different bodily constellations in virtual space invite players to interpret what is going on between characters. Are attachments secure or precarious? Are they being taken for granted by the characters, or do they need to be fought for?

Character design, the way bodies look like when they meet in space, is necessarily related. Size differences, as well as the use of identity markers characterise bodies in a way that can proliferate (or challenge) stereotypes. There is a point in treating markers such as gender and age as game design device: They make tangible part of the attachment and loss quality on a social level (i.e. they make Passage's attachment tangible as spousal, and Shelter's relationships as adult-child commitment).

Finally, aural representation can illustrate individual character traits in less explicit, more subtle ways. They can be used to anchor characters in their worlds, adding a sense of legitimacy to their presence in the game's/the player's world.

Rather than as separate units producing particular effects in isolation, design devices only make sense in the context of a larger (non)-ergodic spectrum. For the purpose of understanding the choices game designers have when constructing notions of attachment, loss and grief, however, I will first address them individually. The chapter closes with an overview of how they have been used in context.

Rules and Mechanics

I have observed three ways in which the bond to another character, be it an NPC or a second player character (*Brothers*), is communicated through rules and mechanics. To distinguish different constellations, I have named these incorporation, dependency, and synergy rules, respectively. Incorporation rules

impose a bond and thus characterise it as fact beyond the player's control. Dependency rules motivate caring through a power divide between the characters, and synergy rules foster attachment through an eye-level relationship. Irrespective of the differences between these connections, the sense of collectivity can be amplified by the use of an adversary threatening the inter-character bond.

Incorporation rules merge two separate characters into one controllable unit. This strategy is used in *Passage*, where the player character starts out as single person, and through the fateful entering of the NPC's space ends up blending with her. We are not told about this rule until the game puts it into effect. This surprise fusion makes three claims about the attachment (or more precisely, heteronormative romantic love). First, "falling in love" is presented as event beyond one's control; something overwhelming both the character and the player by being a fact of nature. Secondly, relationships are *made* but not chosen. After the "love" event, the characters stay attached without raising the need for consent or negotiation. Staying together is a natural consequence of falling in love. Thirdly, the mechanic models touch in terms of commitment, proliferating a conservative world view of "two becoming one" as soon as they engage in physical contact.

This last point is particularly problematic when considering that incorporation is achieved by a male "incorporator" who is incidentally male, and done to a passive "incorporated" who is incidentally female. This enforces a possession narrative, inducing some players to talk about the spouse as an object to be "taken" as a wife. Since the wife is passive, being "taken" is an act which she cannot question or protest.

Nevertheless, Passage demonstrates that incorporation can be useful to convey a notion of commitment over a short playing time and through simple means. Rather than investing in long-term bonding rituals, imposing a rule which suddenly merges two characters demands adjustment from the player, and changes the character's place in the world. Another pragmatic advantage is that incorporation can be simply reversed to introduce separation: While the condition for incorporation in Passage is touching the spouse, the condition for separation is that the spouse touches the right side of the screen. In other words, a spatial rule is used to both establish and undo attachment.

I suggest that the incorporation device can be used to evoke narratives beyond the misogynistic version of spousal attachment proposed in *Passage*. A simple gender swap would be the most obvious possibility to avoid the hegemonic cliché of male agency and female passivity. Another option would be to modify the separation condition to allow for break ups, perhaps by the introduction of landmarks, treasure chests, or new characters which may motivate separation.

Rather than imposing attachment, dependency rules structure gameplay around the need to help a more vulnerable character and motivate attachment through the feeling of responsibility. *Shelter*'s win condition is to survive in the wild, but its rules and mechanics focus heavily on keeping the kits' well-being in mind while traveling from burrow to burrow. This is reflected in the mother badger's ability to forage for food, which the badger kits must eat in order to survive. At the same time, the kits are defined as vulnerable and trusting, following their mother even when she walks off into predatory habitats, and starving when she fails to feed them. This dynamic is constructed through a permadeath rule: Once attacked or perished, the kits disappear forever; there is no quick save option to bring them back. This frames death as the *player's* failure to provide rather than presenting it as part of an inevitable narrative moment. Each death comes with the question, *Could I have done something different to prevent this loss?* Due to interreactivity, the answer is always yes, encouraging emotions of guilt.

Although matching the theme of survival in Shelter, permadeath is not required to construct dependency. *Ico* uses the device to produce elaborate rituals around helping a less capable other. Examples are Yorda's jump into Ico's arms, the fights against shadow creatures, and the escape towards the next idol gate. These rituals instil a sense of responsibility which can turn into gameplay deprivation when the dependent other is gone. In both *Shelter* and *Ico*, the loss of the other is the loss of the ability to help. With Yorda gone, there is noone to fight for, and noone to escape with, while the loss of a badger kit, as we have seen, evokes guilt over being a bad parent.

Game designers using dependency to motivate attachment should not forget that this device is based on an inequitable distribution of power between two characters. If players emotionally invest in dependency they do so because they

feel responsible for a weaker, less dependable, or completely helpless other. This can be appropriate in some cases, as in the portrayal of an infant-adult relationship (*Shelter*). In the case of *Ico*, however, the power divide coincides with a gender divides, characterising agency as incidentally male quality, while Yorda's physical inferiority is *also* coded as feminine trait.

Another consideration is that escort missions, which both *Shelter* and *Ico* are examples of, are often blamed for characterising the helpless other "artificially stupid"[34]. This means that while programmed to be vulnerable, vulnerability does not reflect in their behaviour, such as when they run into a line of fire, or attack clearly overpowered enemies. *Shelter* and *Ico* circumvent this problem by disallowing the NPCs to autonomously interact with enemies

A third attachment device is synergy, which is when two characters' roles and abilities are defined as complementary, and equally strong. The motivation for attachment is not the need to help a helpless other, but conversely, the respect for a similarly strong partner and the pleasure of smooth collaboration. Synergies can be prescribed by or subtly emerge from the game rules. *Brothers* is an example for prescriptive synergies, since the only way to progress is to use the complementary abilities of big brother and little brother. The brothers collaborate on eye-level, and all elements in the game world are custom-tailored to accommodate teamwork. The rules of interaction are simple: Each brother owns a button that triggers a contextual action depending on the game object in front of them. This way, the game conditions players to interpret some tasks as "big brother tasks" and others as "little brother tasks", dividing responsibilities equally.

While in *Brothers* synergy is authored and pre-defined, *FFVII* uses synergy more subtly, through character metrics and battle dynamics. Instead of forcing the players to recognise Cloud's and Aeris's chemistry, the game balances their character profiles in ways which encourage Aeris's inclusion in battle party. Cloud is optimised as offensive, physically strong character, which does not only mean that he acquires fighting skills faster than others, but that his Limit Breaks feature mostly aggressive strikes. Aeris, conversely, develops mage skills swifter

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Online source: http://tvtropes.org/pmwiki/pmwiki.php/Main/ArtificialStupidity

than any of the remaining characters, and performs otherwise expensive restorative moves for free. Over the course of many battles, players are allowed to explore these synergies and may come to the conclusion that Cloud and Aeris are a good match. Like in a mutually beneficial long-term relationship, or a friendship, synergies are nuanced and may create attachments which, as I have shown in my discussion of fan responses - are difficult to let go.

When it comes to loss, the way we have invested in synergy dynamics matters. If synergy has been imposed, as in *Brothers*, separation is a matter of scripted events as well. Other than in *FFVII*, where attachment is a player's personal choice, Brother talks about rather than elicits emotion in players. If synergetic attachment has been a personal choice by the player, like in FFVII, players can feel shocked by the separation, feeling a "secondary loss" (Stroebe/Schut 1999) of their strategy setup, and develop fan practices of "continuing bonds" (Klass et al. 1996) with the lost character

Adversary is part of the conventional video game formula, in which an enemy or evil force exerts aggression against a game hero and needs to be overcome to win the game. But adversary can also serve to foster belonging between characters. In all games I have discussed, a friendly other is made important by making them the target of some antagonistic force, whether evil or a fact of nature. Yorda is attacked by shadow creatures which only Ico can get under control, big brother and little brother bond over fear of the evil spider woman, and *FFVII*'s battles against fantasy monsters make up the better part of time spent with Aeris. The badger kits are in a constant threat of being killed by predators, flames or high water, and the progression of time in *Passage* conjures up the question how long the couple will stay together.

In any of these cases, danger to the team unit serves two functions. First, it strengthens collective identity by drawing a line between *us* and *them*. This line emerges from who the rules define as victim (us) and as perpetrator (them), constructing a sense of belonging. Secondly, danger foreshadows an inevitable or possible separation. The shadow creatures in *Ico* do not take Yorda away from Ico, but they characterise Ico's paranoid fear of loss in an uncertain future. Indeed, the shadow fighting rituals foreshadow this loss. In a permadeath scenario like *Shelter*, adversary does not foreshadow but produces loss

immediately. One wrong step and one badger graphic is missing (Ellison 2013). While the devices described above characterise specific attachment qualities, adversary can be used as more additional device to amplify a sense of in-group belonging.

Control schemes

As input devices, controllers make what is happening between characters physically tangible. Control schemes communicate who owns agency, and create a sense of presence. Game designers can use control schemes to model feelings presence and absence thought interreactive strategies, designing haptic rituals to realise a connection. I have observed two ways in which games have done this compellingly, through devices I call the tandem controls, and the call response controls. The former constructs presence by mapping two characters on the controls simultaneously; the latter models yearning for a desired character, focusing attention on the desiring character.

Brothers demonstrates that instead of channeling all action through the perspective of a single character, video games can use the device of tandem controls to divide gameplay rituals among several characters. In the game the controller serves as haptic proxy of the sibling constellation we see on screen: We see little brother on the right side of the screen, and press the right action button on the controller; the left side is reserved for big brother.

Over time, our hands are conditioned to feel the brothers in terms on "their" space on the controller. The real-time sharing of space among characters is different from role-playing settings like in *FFVII*, where several characters take turns. Tandem controls express a notion of equality by making several characters "own" space simultaneously, which prevents the feeling of a hierarchy or "pecking order".

Through repetition, *Brothers's* controls normalise the equal presence of the brothers, and continues to work after big brother's death. Even as big brother is visually absent, his action button remains in the hand of the player. This is used to construct a sense of "inner representation" (Klass 1993) of big brother in little brother's world. Pressing his button now activates little brother's memory and allows him to perform actions which used to be only possible for big brother.

This demonstrates the potential of tandem controls as design tool for narratives of commemoration and remembrance. Once the presence of a character has been established on the haptic level, players, designers can combine visual absence and haptic presence to suggest that a character continues to matter after their death.

While the tandem scheme maps actions of several characters at once, the call/response device focuses on a single character's yearning for another. *Ico* only addresses the main character's wish to be with Yorda, which can be expressed by pressing the shoulder button on the PlayStation 2 controller. Unlike Brothers, in which each character owns a button, and therefore agency, the call/response scheme characterises Ico as agent uttering a request, and Yorda as the addressee following suit. This amplifies the asymmetrical power distribution, since the game never explains Yorda's motivation to follow Ico. Her actions always happen in response to an external demand, so we are left in the dark about her true ambitions and intentions, including whether the desire for intimacy is mutual. It is not her choice to hold hands, it is Ico's anxious demand.

This means that by putting a single character's emotional requests in the spotlight, *Ico*'s call/response controls characterise one character as hungry for attention, while the feelings of the desired characters are unknown. Nevertheless, by rendering Yorda's responses reliable, making her consistently jump across the abyss into his arms, or holds his hand, the player comes to expect that call is always followed by response.

When Yorda disappears, players can still press the "desire" button, but Ico's voice goes into the void. Ico's case, the unrequited shout feels like a desperate attempt to stay connected to a lost other, which is a more uncertain post-loss scenario than the tandem control's certainty of *being* connected beyond death. Due to this uncertainty, the call/response scheme characterises attachment as precarious and fragile, characterising love and loss as ambivalent experience which can never be fully understood.

Space and environment

If video games represent characters on screen, both the distance between them, and their movements can express different attachment qualities. How, and to whom is space granted or denied? I have observed different spatial strategies

games use to answer this question, which I have called the union, the invisible bond and the elastic bond. In the union, there is no space between characters; the In invisible bond makes an NPC automatically follow the protagonist in an effort to keep close; and the elastic bond has the player negotiate the distance between characters through gameplay. These three constellations make two claims about relationships. First, they decide to what degree intimacy can be taken for granted, depending on whether the space between characters is safe or contested. Secondly, they determine the quality of loss when the other is removed from the constellation.

The union is demonstrated in *Passage*, where the player navigates a double character unit through space, adjusting to an altered size imposed by incorporation. In the maze environment of *Passage*, a double body unit tells a story of compromise: The player can no longer reach treasure chests they used to reach, and this is a direct result of building a union with the wife. The couple is not only controlled by the player, it is also controlled by space. Tapping into the convention of left as past and right as future, the union is pushed towards an uncertain future at the end of the right screen.

This has two bonding effects: First, since the couple is pushed towards the right edge together, the question what awaits them affects both of them. Will things stay as they are? Will this be the end of the union? Secondly, since the spouse is heading the party, we can expect her to reach the right side of the screen first. Some players may anticipate her loss, and enjoy shared space while it lasts. Since the rule of death - when one partner hits the right edge - has not been established yet, players have no way of telling whether things will improve, worsen, or end. The only thing that can be done is to use one's remaining time - a couple of minutes or seconds - to explore the Passage to the best of one's abilities.

An invisible bond is established when the distance between characters is automatically regulated by the game. We have seen this strategy in *Shelter* and *Brothers*, where it is used to express the "natural" belonging of a family bond: In *Shelter*, the badger kits follow their mother wherever she goes, since proximity is synonymous with better chances of survival. If malnourished, the kits may slow down and make the crossing of a creek, or the traversal of hawk-ridden

landscapes more risky. Maintaining a good relationship is thus a matter of lubricating the invisible bond by feeding the kits regularly.

Shelter also demonstrates how, for extra effect, the family bond may be temporally broken, as in the nocturnal "panic" mode when the kits, scared by the presence of perpetrators, run into different directions. In panic mode it is again the mother who is fully responsible for getting her young back, and re-establish the safety of the family unit.

In *Brothers*, the invisible bond is introduced in the form of a maximum distance between the characters. While solving puzzles, the brothers must not leave a given area, reinforcing a sense of collective “sibling” identity, albeit without the power hierarchy the “follower” dynamic creates in Shelter. Within this identity space, the brothers can roam around freely, and be made to interact with environmental cues.

In both games, there is an invisible, externally imposed “attachment space” which indicates that relationships are given rather than made. This allows game designers to characterise an attachment as natural, taken for granted, as is the case in family dynamics. Neither in *Shelter* nor in *Brothers* do the players have to construct togetherness and intimacy from scratch through hard work. It is there by default.

This is different in the *elastic bond*, in which intimacy is desirable, but the game does everything to make it unavailable. In *Ico*, we find the two protagonists in an adverse environment, where staying together grants advantages but is not always available. Distance is defined as dangerous: The farther the characters are apart, the more exposed the NPCs are to aggressors. However, Yorda does not “instinctively” seek Ico’s space, like the kits in *Shelter*. She needs to be explicitly called over, and sometimes left alone when the game disallows her from accessing key areas. This forces the player to take the risk of temporary spatial separation, followed by a pleasant reunion. The elastic back and forth frames intimacy as a precious resource that must be earned rather than expected.
This makes the elastic bond a device to characterise relationships as problematic or tense. It communicates that the presence of the other can never be fully owned, even if this is a collective wish.

Character design

Visual design, the way a character and their environments look, can do much to characterise experiences of bonding, loss and grief by adding a socio-cultural dimension through identity markers. Such markers, in the observed games primarily gender and age, provide a sense of who the characters are by creating difference. A bond between different gendered or aged characters conditions how this relationship impacts how players are invited to care. Furthermore, visuality can be used on a more abstract level to characterise character emotions in terms of emotional landscapes.

Gendering, or the characterisation of protagonists along a female/male binary, has been used to foster bonding in two ways: bonding over gender difference, and bonding over similarity. Bonding over gender difference is used by games which imply bonding as heteronormative longing for the opposite gender (*FFVII, Ico, Passage*). Part of the motivation to bond is a romantic interest.

In *FFVII*, gender difference structures who acts and who is looked at (and by proxy who desires and who is desired), which is similar to *Passage*, where incorporation is marked by a gender divide. Long hair and skirt are conventional markers of femininity on the spouse; these markers happen to correspond with a role of the passive object waiting to be incorporated by a male protagonist.Visual gender markers, then, define whose experience we side with. In *Ico*'s dependency constellation, gender serves a similar purpose of declaring different abilities male or female. Gender allows the game designers to portray Yorda's inability to swim, climb, fight, and run as feminine traits.

The second function of gender is same-gender bonding; loyalty over the fact that one shares gender aspects with someone else. This is done in *Brothers*, where gender markers regulate the boundary between friend and foe. The two prominent female characters personify existential threats. The ghost mother, whose appearance is confined to little brother's hallucinatory episodes explains little brothers' post-traumatic fear of water. The other woman - an evil, seductive spider witch - is responsible for big brother's death, and is thereby stylised as convenient hate object facilitating male bonding. Women are not othered to be desired, they are othered to provide a context for a male-centred grief narrative. I would like to suggest that *Brothers*' misogyny is a side effect of repurposing

mythological archetypes for gameplay without reflection. The boss battle mechanics of pulling legs from the spider's body to disarm the woman's seductive charms is an obvious reference to the *vagina dentata* trope, an image which has a century-long tradition of vilifying female sexuality (Raitt 1980).

Visualising age can flesh out the reasons for responsibility and care, like in *Shelter*, where the size difference between the badgers points to an adult-child relationship. The size difference makes immediately clear who cares and who is cared for, and achieves a cuteness effect: Through the relative smaller body size of the badger kits, which clumsily waddle along their mother, we understand that these kits are worth our protection.

In *Brothers*, age markers are used to characterise the distribution of skills among the brothers. From the beginning, it is intuitive to assume that big brother will pull the heavy levers, and push little brother over the high latch. As *Ico* demonstrates, though, size is not always a used to mark age or competence. Yorda is much taller than Ico, but size does not translate into skills or responsibility. If anything, it emphasises Yorda's unavailability, and invites readings of Ico's yearnings in terms of an infantile desire for the mother's attention (McDonald 2012).

Another use of age markers is shown in *Passage*, where character sprites change over time as to display varying fashion choices and physical conditions. This expresses the collective experience of ageing together, while the couple is pushed forward in time. Here, age markers represent a process, and stress the character's collective experience of growing old, rather than marking different social roles.

While markers of gender and age are concrete ways to portray character traits, a more subtle visual strategy is to reflect a character's inner life in the game landscape. In *Ico*, bonding with Yorda takes place high up on the castle walls, which progressively crumbles throughout the game. While together with Yorda, the weather is sunny and clear; if outside, one can overview the surroundings, and the atmosphere is calm. The loss of Yorda coincides with Ico's fall from the bridge: The scenery changes from homely to rough - we are thrown into a dark cave, framed by a thunderstorm, and a loss of orientation accompanies the loss of bonding rituals. Like in *Ico*, the environment is also used by *FFVII* and *Brothers*

as additional metonymic sign pointing to character traits. Aeris's birth house is located in the midst of the poor slum region in Sector 5, but flowers bloom in her garden, indicating her resilience and benevolence.

The journey through diverse landscapes in *Brothers*, and the use of day and night, as well as different weathers, illustrate collective experience in *Brothers* and *Shelter*. Big brother's death, as well as Ico's new fall from the bridge are accompanied by thunderstorms.

However well landscapes and weathers can communicate characters' inner lives, *Brothers* is a good example for the overuse of this device. In the game, every landmark, tree, and animal in the landscape has an explicit meaning. Rather than making space for emotional projection, this puts the player into an emotional straightjacket, forcing them to follow the emotional message along or to be lost on the way.

Aural Representations

Sound can describe both the conditions under which attachment and separation is experienced, and the personality of the character one relates to. If it is used synaesthetically, it characterises other sensations, such as smell or vision. Another possibility is musical theming, using a musical loop repeatedly to characterise a place, activity, or attachment figure.

Aural synaesthesia, coupling of sensations through music (Pichlmair/Kayali 2007) can simulate aspects of what it feels like to be in an attachment, or suffer from separation. Used in game design, it can be used to simulate a sense of smell, like in *Shelter*, where the badger mother's sense of danger is indicated through audible cues. Sound is used to heighten the sense of collective threat, but also to supply soothing feedback to a successful nurturing activity. This creates a panic/ reward structure, which illustrates the emotional level of maternal caring produced by the gameplay ritual. Since rituals happen repetitively, the aural structure provides a subtle expression guiding players how they should feel.

Some games use musical themes, recurring melodies, which anchor a character in the game world. We have seen this at use in *FFVII*, where variations of the Aeris theme are played to marks geographical regions and events as "Aeris-centric".

The meditative tune both normalises and legitimates Aeris's presence in the game world, and characterises her as calm and spiritual. This “emotional package” is evoked during her impalement, when the player is made to listen to the full version of the Aeris's theme. Apart from hinting at the fact that we are about to lose an important character, hearing the tune continue during the post-impalement boss battle creates an effect of traumatic numbing. Aeris’s friends cannot believe what just happened, can the player?

Another version of musical theming can be found in Ico, where Yorda's signal theme is casually played while the start screen is active. A player entering the game will hear the beginning of the Yorda theme over and over again, depending on how often they open the game. We do not hear this melody inside of the game until the climactic end scene, when Yorda pushes Ico's boat from the crumbling castle, remaining buried under it. Like in *FFVII*, the tune is familiar and a nostalgia effect might kick in - we have heard this song before, but not until the end, and not in the context of separation. To very observant players it will occur that the lyrics of "You Were There" contain the mystical phrase Yorda whispered to Ico in the moment of his fall from the bridge. The song comments on the couple's fate, their being together and separation.

Constructing a grief-specific gameplay gestalt

As devices on an ergodic continuum, using interreactivity in different extents, the design strategies discussed here unfold their effects through interplay with other devices and in mutual exchange with the player over time. This interplay can be unpacked in terms of different loss gestalts, experience clusters which comprise dynamics of attachment, loss and grief. By means of conclusion, I would like to review the different gameplay gestalts (fig. 2.13) constructed by the five games, looking at the design devices in use.

First, *FFVII* constructs an ally loss gestalt through a combination of the synergy device (abilities on par with the main hero), musical theming, legitimising Aeris in the game world, and gender difference, which marks her as potential love interest. During the loss, which is both staged and introduces a boss battle reminding us of our “secondary losses”, the nostalgic function of musical theming is used to construct traumatic numbing. After the loss, the game does nothing to acknowledge Aeris’ absence, and allows players to search and yearn for her

through fan practices. This radical removal also needs to be seen in the context of dozens of remaining gameplay hours, for which the synergy device has created a powerful premise: Aeris' Limit Breaks, and therefore her contribution to the collective, will be dearly missed during the rest of the game.

Passage portrays conjugal attachment and bereavement, using the incorporation device in a gendered form: The man initiates contact, the woman is incorporated, and together, they become an unbreakable union. This union, a non-negotiable connection between two characters in space is embedded in a temporal order expressed through the age device. Simultaneously, they are pushed to the the right. This combination of the union and age marker introduces the question of what will happen as the couple reaches the outer right frame. When the wife is split from the unit through the separation rule, we remember just how much we have taken her presence for granted. Her absence conjures up the question what the player character, thrown back to a single unit character, will do next. Will he stay with the little gravestone and refuse to move on, or will he go and explore more of the Passage at the cost of leaving the gravestone out of sight? This is how Passage frames the male character's repertoire of possible grief responses, providing the options to move on, or continue bonds through the refusal to move.

Ico models problematic loss of an ambivalent love object, perhaps the mother (McDonald 2012). The game first represents the Ico-Yorda connection as unstable, constantly threatened bond, using the elastic bond device and a call/ response control scheme, which frames the connection as inevitably precarious and enabled by Ico's repeated demands. The motive of helping Yorda as more fragile, incompetent, and incidentally female character is established through a series of dependency rituals performing a power divide between the characters. The staged loss of these rituals causes gameplay deprivation: Only half of the mechanics are left, and they need to be performed in a changed environment. Here, a symbolic landscape is used to communicate an ongoing depressive commitment to the lost (m)other.

Shelter's child loss gestalt first constructs the mother as self-sacrificing care taker, using a set of dependency rules, and the invisible bond device to identify the offspring as intuitively trusting. The age device is used to reinforce vulnerability and cuteness on the visual level, and a synaesthetic sound scape

characterises collective alertness of potential dangers. Loss is modelled through the rule of permadeath, which constructs bereavement as maternal failure. Post-parental life is presented as dysfunctional and without purpose, since the game world caters exclusively to the project of nurturing. Since hunting and gathering become pointless with the loss of mothering duties, fruit, roots and rodents cannot be put to their assigned use. The game thus incidentally characterises bereaved motherhood's only choice as destructive pillaging.

Finally, Brothers constructs a fraternal loss gestalt, using a combination of synergy rules, the tandem control device, and a strategic dynamic of same-gender bonding. Attachment is characterised as safe and taken for granted; it is the player who has to grapple with a control system that if used correctly, will adjust the brothers perfectly to their environments. The brothers share agency, with differences only introduced on the visual level of age markers, indicating contextual action (i.e. big brother being more likely to carry out actions requiring strength). The fraternal bond is defined as intuitive by means of making it both invisible (a maximum distance between them) and elastic (a back and forth between different spatial challenges). After loss, the tandem controls are used to great effect, working with a visually absent, but haptically present big brother. By working controls that have previously mediated big brother's actions, the game models the brothers' continuing bonds and little brother's inner representation of big brother.

The possibilities and limitations demonstrated in these loss gestalts highlight strategies for grief-centred game design. I have argued that while providing compelling cases for game coherence, the discussed loss gestalts also illustrate current shortcomings in the representation of attachment, loss and grief dynamics. One example has been the absence of female-centred grief experience. When it appears (*Shelter*), it comes with undertones of dysfunctionality, reverberating the tendency of medical grief studies to pathologise female experience (Bradbury 1999).

Critical game design practice demands that we learn from previous failures, and challenge stereotypes which incidentally slip into game design if we do not provide appropriate alternatives. Apart from subverting existing expressions as I

have suggested with the role reversal in *Passage*, one thing designers can do is to address experiences which have not been tackled through game design before. This is what I have in mind with *Jocoi*, a game about pregnancy loss, which I designed as case study reflecting on how game design can make lived grief speakable. The tools I have identified in this chapter will be helpful to engage in a designerly dialogue with the bereaved.

	FFVII	**Ico**	**Passage**	**Shelter**	**Brothers**
Loss gestalt	ally loss	ambiguous loss	conjugal loss	child loss	sibling loss
Attachment devices	symbiosis, gender, musical theming	dependency, elastic bond, call/response, gender emotional landscape, musical theming	incorporation, union, gender, age	dependency, invisible bond, age, aural synaesthesia	symbiosis, tandem, elastic bond, gender, emotional landscape
Loss event	staged, ergodic + non-ergodic	staged, non-ergodic	death rule	death rule	staged, ergodic + non-ergodic
Grief	absent	represented	represented	absent	represented

fig. 3.13: loss gestalts in the five games

PART 3
CASE STUDY

3.0 *JOCOI*: A CASE STUDY ON GRIEF-BASED GAME DESIGN

In the last five chapters I have discussed design devices which are helpful to construct notions of attachment, loss and grief. What I have shown, throughout the five games is that video games have a wide palette of opportunities to model human experiences through nuanced ways using ergodic and non-ergodic means. They can characterise why we care, for instance by putting players into an inequitable distribution of power in which they engage in paranoid bonding rituals (*Shelter, Ico*), or by creating eye-level relationships between characters, which invites players to care about a character as equal partner (*FFVII, Brothers*). While providing rich tools to make nuances of inter-character relationships tangible, the five games have also indicated a tendency to prioritise male experience and silence other possible vantage points for grief-based game design in the process.

According to some cultural commentators, video games' selective preference for male experience spaces is a part of a wider problem (Alexander 2016, Code 2016). Game journalist Leigh Alexander argues that "the industry model whereby wealthy white men peddle power fantasies that throttle everyone else's needs out of consideration remains alive and well" (Alexander 2016). According to her are not only the interests of "wealthy white men" overly catered to by the game industry, but this has symbolic effects on those whose needs are ignored in turn. In a similar vein, game developer Brie Code (2016) has argued that the gun-toting, rapid-fire-action aesthetics of arcade-style game culture does little to include a growing number of game audiences who would prefer games fostering self-care and empathy over fast-paced entertainment.

This case study harks into this recent discourse in specific ways, by addressing the woman-focused experience context of pregnancy loss through game design. Given that for millions of women, grieving over the loss of a foetus or infant is an ordinary experience[35], it is notably absent from video games. By way of

[35] According to information by the World Health Organisation, "In 2009 there were 2.6 million stillbirths globally with more than 8200 deaths a day. At least half of all stillbirths occurred in the intrapartum period. Among the 133 million babies born alive each year, 2.8 million die in the first week of life." This suggests that losing a foetus or child is a common experience for many women world-wide. Source: http://www.who.int/maternal_child_adolescent/topics/maternal/maternal_perinatal/en/, last accessed 23/3 2017

challenging this symbolic silencing of pregnancy loss, this case study looks at possibilities of grief-based game design, involving four bereaved mothers whose experience reports inspired ideation. The participants constructed inspirational materials reflecting on their ongoing bonds with their babies. These materials were used to inspire the development of the digital game *Jocoi*. The women were contacted via the Austrian self-help group bereavement group *Regenbogen*, and game development was carried out with a student team at Aalborg University Copenhagen over the course of three months.

The aim of the study - designing a video game by addressing lived experiences of grievers - can be understood as a reflective design process (Löwgren 1995, Sengers et al. 2004). Sengers et al. (2004) describe reflective design as follows: "Some of our products are things to use; some are things to think with. The latter might have little practical use but can encourage reflection on technology, its situated meanings in people's lives, and our own role as researchers and designers" (2004: 15).

This case study uses game design as process to "think with" in regard to three specific questions. First, how can the narratives and ideas of grievers be considered early on during ideation, not merely as part of play testing? Secondly, how could inspirational material about lived grief experience be appropriately translated into gameplay? And eventually, how can the impact and purpose of a "grief game" be assessed? Even though the case study is process- rather than product-oriented, the evaluation of responses to the final prototype of *Jocoi* inform perspectives on the use and value of grief-based game design, which is a novel field for HCI and design research.

3.1 MUSE-BASED GAME DESIGN: A METHODOLOGY

Concerning the question how to include the women's experience backgrounds into game design, I found Rilla Khaled's (2012) muse-based design approach most promising. Muse-based design is “an experimental empathic design approach foregrounding a dialogic artist – muse relationship between a game designer and player” (Khaled 2012: 721).

Khaled observes that while it is common practice for game designers to test their products on players late on during design, it is less common to include players’ views at a point where they can impact design decisions. This leads to missed opportunities regarding the innovation of design, causing game designers to gravitate towards a repetition of well-established creative formulae.

As opposed to this, muse-based design turns the focus to the tastes of (potential) players, and how they may challenge “existing assumptions surrounding the nature of game design” by means of fostering “designerly self-awareness” (Khaled 2012: 721-722). instead of a conventional development cycle in which the player is involved only as playtester of a finished product, muse-based design invests in learning about the player early on and formulates appropriate design constraints responding to player inspiration. This creates a dialogic situation in which the player becomes the “muse” inspiring ideation, and the designer acts as “artist” creating idiosyncratic design constraints.

First, the image of the muse-artist relationship is not free from problematic associations, especially when we look at visual art history. The muse has dominantly been depicted as young seductive woman offering her scantily clad body to the male artist’s gaze, or “inspiring” him through a kiss. Famous examples are Paul Cezanne’s painting *Kiss of the Muse* (c. 1860) and Édouard Manet’s painting *Olympia* (1863). In such representations, rather than a dialogue partner, the muse is the sexualised object on display. Her cuntribution to the art making processes is systematically silenced.

I would like to argue, however, that Khaled's proposition of muse-based game design is a way of reclaiming the voice of the muse by bringing them back into dialogue. The artist-muse relationship is a pragmatic category whose function is to involve dialogue partners into design who are intimidated by the idea of making a game. Khaled argues that while designers often believe they can empower participants by putting them in charge of design tasks, this can backfire in situations where participants do not want to be "empowered". As she discusses elsewhere (Khaled/Vasalou 2014) the question of empowerment needs to be resolved contextually.

The role division proposed by the muse-based game design approach regulates design contributions in terms of clear responsibilities. "The role of the muse is to inspire, and the role of the designer is to respond through attempts to create interesting experiences that relate to and appeal to the muse. The designer's objective is to amuse the muse" (Khaled 2012: 724).

Finally, as experimental design method, muse-based design stays open to the idiosyncratic participant needs rather than defining a procedure. In fact, part of the dialogue is to design a method which responds to wishes and fears the muses might have, and provide a design context in which they feel safe and comfortable sharing their experiences.

Participant setting

The muse-based design approach responded to the given participant setting in important ways. First, the reason the women joined the project was to make space for their children and share their stories freely irrespective of societal taboos[36]. They expressed enthusiasm about the prospect of contributing to the destigmatisation of grief experience in public discourse, and for doing so using creative methods. The denomination of "child", preferred over "foetus", and the consistent naming of their children suggested that they cultivated "continuing bonds" (Klass et al. 1996) with the deceased, staying in touch through "inner representations" (Klass 1993). Like in Klass' study, the women experienced the cultivation of their children's inner representations as fulfilling aspect of their

[36] This also reflects in the wish of three women to be included under their real names, Petra, Claudia and Gudrun.

everyday post-bereavement lives. The desire to communicate about their children was not impacted by the time that had passed between the loss event and participation, which varied between 13 months and 10 years. The muse-based design approach suggested that the women's rich narratives could be tapped for ideation, provided that this happened in an empowering setting.

Secondly, the women expressed some scepticism towards *video games* and their status as meaningful expressive media, much in line with Alexander's (2016) and Code's (2016) critique. They did not feel connected to the medium, and besides associations to children's entertainment, expressed doubt they could meaningfully contribute to "game design". Framing their role as "muse" allowed framing their participation in terms of inspiration adding value to design. Instead of burdening them with a task which, to them, sounded alienating and overwhelming ("making a game"), the muse-artist division clarified expectations and areas of responsibility. Creating clear boundaries around the task to inspire without thinking too much about game design helped divert attention from video games as objects of distrust, and put focus on their experiences instead.

Hence, the muse-based design roles allowed putting the women's voices first and game development second, preliminary ignoring dominant ideas about *video games* and dedicating ideation to what the women had to say. This implicitly turned the discourse from alienation into innovation: If the women were alienated by "old" notions of video games, making a game based on their ideas would certainly inspire new ones. Alienation, if used right, could turn into a design resource.

Ideation: The *Trauerspiel* workshop

The ideation workshop was carried out under the name *Trauerspiel* in summer 2014. Over the course of four hours, the women worked out personal symbolic expressions of their mother-child bond, based on the principles of dual communication (Potash/Ho 2014) and metaphorical modelling (Rusch 2017). As discussed in an earlier chapter, Potash and Ho (2014) have addressed two important moments during grief-related artistic expression; the moment of intra-personal communication or creation, also referred to as poiesis (Levine

2014), and the moment of inter-personal communication, or reception by a listener who cares (Thompson 2003). These moments were also important during the muse-based ideation workshop, as a process that first invited them to create, and later to observe and reflect.

First, During the initial *Trauerspiel* workshop in Vienna, metaphorical design exercises (Rusch 2011) were used to learn about the women's experiences. Rather than "making a game", the goal was similar to group work in expressive arts therapy (Thompson 2003), in that it involved person-centred "meaning making". Usually, metaphorical game design starts with a person's unorganised feelings, associations and expressions towards a phenomenon and, step by step, moves towards a formalised game system (Rusch 2017). However, since this method is individual-centred, a modification was used to create a common ground for the group: The women were instructed to model their relationships with their dead children through the image of a *planet:* They were asked to imagine themselves as explorers visiting the planet where their child lived, to describe in as much detail as possible what they found there.

The shared metaphor of the planet was supposed to pave the way for observing similarities and differences across the representations in the sense of inter-personal communication (Potash/Ho 2014). First, crafting the planets required attention to "what was there" in terms of the women's inner representations of the mother-child bond. After this phase of introspection and expression, the planets could be admired side by side as part of a larger shared "galaxy", suggesting commonalities and making differences more transparent.

Another intention with the planet metaphor was the creation of a context for game design, since its confinement in time and space shares elements can be mapped to game space. Planets have a surface (level design), an atmosphere (visuals, sound), inhabitants (characters), and natural laws (rules). In other words, they can be explored in terms of aesthetics, mechanics, and dynamics (Hunicke et al. 2004).

The planets served as evocative objects during the semester-long development of Jocoi, carried out with a student team at Aalborg University Copenhagen. The

women's metaphorical landscapes presented a multi-layered canvas for empathic game design: What desires, wishes, and fears were communicated through those models? How did they reflect grief? And what gameplay aesthetics, dynamics and mechanics did they represent? The students received photographs and transcriptions from the Trauerspiel workshop, and were familiarised with preliminary observations about game-specific representations of loss and grief (Harrer 2013). These two resources were engaged with each other in terms of an ongoing dialogue: The women had started the design process; the goal was to complete it in a way that would resonate with their feelings.

Development and evaluation

Game development followed an iterative process (Fullerton 2008), during which different assessment methods were used to create functionality and user experience (UX) in line with the design goal.

The first iteration was addressed in terms of basic usability, the "task efficiency" (Bargas-Avila/Hornbæk 2011: 1) and "functionality" (Fullerton 2009) of the game. We wanted to know whether players could understand controls and objectives of a game in a way that enabled them to play it without further instructions (Fullerton 2008: 279). The students were encouraged to use testing methods such as the think aloud protocol (Hoonhout 2008), interviewing and

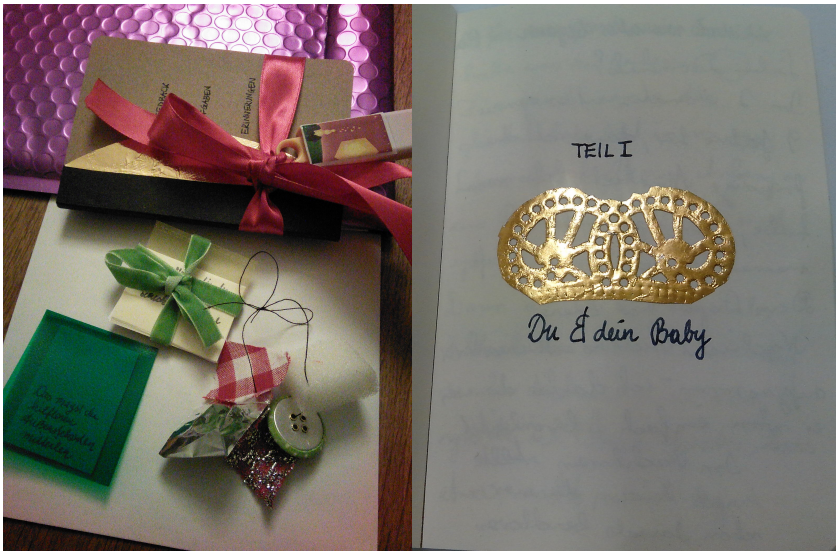

fig. 3.1 The culture probe package

observation (Khaled 2012). These methods served to answer two central questions: How well was the game's functionality understood by players, and how well did it communicate the experience of loss?

The second iteration was tested in regard to UX, which meant it focused more on "dynamics of experience, and on modelling how interactive products, person characteristics, and context work together in shaping the experience of use" (Bargas-Avila/Hornbaek 2011: 1). Additionally to student testers, the women were involved in assessment using cultural probes (Gaver et al. 1999). Cultural probes, as understood in this project, are activity packs with ephemeral value for the design process (Lange-Nielsen et al. 2012). This means that rather than an attempt at "objective" data collection, probes are supposed to enrich the designer-participant relationship on a subjective level, provoking inspirational feedback (Gaver et al. 1999, Boehner et al. 2005, Boehner et al. 2007).

The cultural probe method was first used by experimental design researchers Gaver, Dunne and Pacenti (1999) in the Presence Project, who compared it to "astronomic or surgical probes", which are "left them behind when we had gone and waited for them to return fragmentary data over time." With this poetic comparison the authors illuminate the playful intentions with probe design. Subverting the meaning of "probes" in a scientific context, they stress its explorative, ultimately uncertain purpose. Designers cannot predict what form inspiration will take, but this is precisely what probe designers do not want to achieve. According to the authors:

> [cultural probes] address a common dilemma in developing projects for unfamiliar groups. Understanding the local cultures was necessary so that our designs wouldn't seem irrelevant or arrogant, but we didn't want the groups to constrain our designs unduly by focusing on needs or desires they already understood. We wanted to lead a discussion with the groups toward unexpected ideas, but we didn't want to dominate it (Gaver et al. 1999).

This intention to simultaneously learn from unknown users, but do so in a non-dominating way explains the ambiguous nature of probe materials. According to Gaver et al, the design and presentation of the probe package is part of its *functionality* as inspirational resource. The contents are not intended to narrow down respondents' answers in particular ways; they are supposed to elicit unexpected ideas.

During the last two decades, cultural probes have been used in a variety of design contexts, including work with families (Horst et al. 2004) and children (Wyeth/Diercke 2006). Boehner et al. (2007) deplore that this popularisation of the method has led to a standardisation of probe materials, defying the method's original purpose of subverting rather than replacing existing methods of studying participant needs. Instead of aiming at eliminating subjectivity from the researcher-participant relationship, they seek to cultivate its personal nature through provocative, creative exercises. This means that the process of cultural probing cannot be formalised: The probe package follows contextual needs rather than standardised procedures or materials.

In my use of cultural probes, I wanted to acknowledge this intention. However, instead of designing the package as welcome gift, as done in the Presence Project (Gaver et al. 1999), I constructed it as a farewell gift with a potentially inspirational use for the design team. I used the probes to *get back to* the women well into the design journey, as a way of thanking them for their participation.

The package contained post cards addressed to the development team, an early prototype of the game, and a personalised scrapbook containing three sections; a feedback section on the workshop, questions about the current game prototype, and a section called "You & Your Baby" ("Dein Baby & Du", fig. 3.1). This section invited the women's personal story, an introduction of their child, and small associative exercises intended to acknowledge the importance of the child. The booklets were thus intended as ambiguous emotional objects lending themselves both to intimate storytelling and opportunity to share thoughts about the project. When handing out the probe packages mid-term, the women were instructed to return as many objects as possible, and were given the option to receive the scrapbooks back after the project.

Finally, the end-term evaluation workshop was designed to assess the artefact's role and relevance in the women's lives. It involved group playtesting and a reflection round provoked by five questions (What remains?, Your impulse, Why - For whom? What does it evoke? What would you like to do now?). After writing down initial responses to these questions, the women discussed possible trajectories and limitations for *Jocoi* and its audiences. In the thesis, this process will be documented alongside the ethical question of game design as a practice of representing others and their intimate experiences.

3.2 THE *TRAUERSPIEL* ITERATION WORKSHOP

On a hot morning in July, I met the four participants in the self-help group's community space, located close to Vienna's city centre. Besides regular meet-ups for mourning parents, this centre hosted pre- and postnatal courses and playgroups for parents with their children. This showed in the cosy, playful furniture, accessories and toys at our disposal. For the four-hour workshop, I had set up a room beforehand.

The first thing the participants should notice when entering the room was a white blanket spread out in the middle of the room. It contained 30 random objects, including toys, everyday practical objects, and instruments. The blanket was encircled by sitting pillows, and 9 cards with hand designed "key" stickers were arranged face down next to the blanket. A table on the side was covered with another white blanket. Hidden under the cover was a selection of art and crafting materials, including paper, oil crayons, stickers, textiles, buttons, threads and lego pieces. This setup was supposed to encourage curiosity: What was the point of the objects on the ground? What was under the white cover? Using sitting pillows instead of regular chairs invited an out-of-the ordinary perspective on space, making space for the spontaneous and unexpected.

Warming up to symbolic thinking

After a general welcome, the participants were asked to take a seat, inspect the objects in front of them, and choose up to three objects to introduce themselves. This was intended as warm-up exercise introducing symbolic thinking. Besides attuning participants to object-based metaphoric communication, the exercise was supposed to help group bonding (Young 2007). The confines of the blanket expressed a playful invitation to insert oneself in a given symbolic context and appropriate it to accommodate preferred self-narratives.

The direction and meaning of "introduction" was left open to interpretation, yet the participants consistently chose mother-child narratives as most appropriate. This was also reflected in the objects the women selected. Claudia chose a tiger which "would fit nicely to my son", but which also represented the unforeseen confrontation with a two-fold loss situation: She was left by her partner during pregnancy, and shortly thereafter, lost her son as well: "I just

had to find out of my situation; how to go on with life. From “it’s soon gonna be three of us to: OK, I’m single again, lonely, child also gone”. This situation required a change of perspective best represented by the spectacle case.

Petra stresses that the object she picked up, a tiny doll, represents the relationship to her child, rather than her grief. She describes this doll as something that can be carried around easily without revealing it to the outside world; something that is constantly there. It is important to her that the deceased son “appears as my child, and I introduce myself almost everywhere as mom of four children, not as mom of three children”. She also chose a yoyo - a toy consisting of a reel and a thread - describing that her occupation with the dead varies between closeness and distance. She compares this to the relationship she has with her two living children: “Sometimes there is a little bit more to do, sometimes less. But the involvement never stops, and won’t ever stop in the future. And that’s nice. It’s been 10 years now.”

Christina picked up three objects; an envelope containing basil seeds, because of her “connection to the garden”, a spinning top, representing the “always recurring same” while “things go on”, and a bottle of soap bubbles, which she considered an appropriate children’s toy. It also stands for her dream of a third child, a dream she says, that at some point had burst.

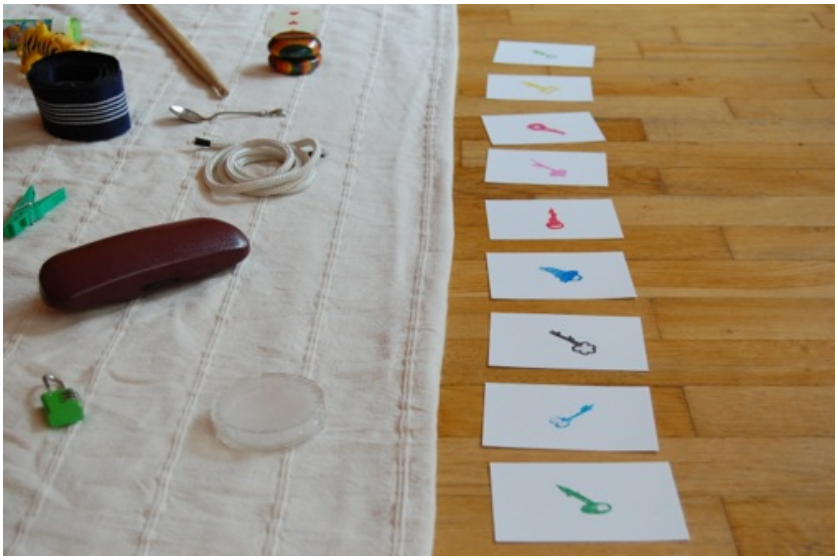

fig. 3.2: Key cards symbolising the arrival on the women’s planets through “gamey” terms

Finally, Gudrun found the lighter most appropriate to describe her responsibility as a midwife focusing on child loss. She emphasises her perspective as a companion or bystander, whose priority is on “seeing people, having time during counselling”. She stresses warmth as the thing that needs to be cultivated in those situations.

The range of responses demonstrated the value of object-based association as a method to facilitated self-disclosure early on in the workshop. Figurative language enabled the group to bond quickly and strongly The participants chose and related to their objects with ease and spontaneity, displaying a high amount of trust that the objects on the blanket had been selected mindfully.

Metaphorical Modelling: A galaxy of grief

After this introductory round, the metaphorical modelling exercise started. The participants were instructed to imagine taking their symbolic objects to a faraway planet, a planet inhabited by a child whose loss they had grieved as parents or bystanders. The expedition was identified as personal mission, highlighting the participants’ unique role as subject matter experts.

Attention was especially drawn on sensory qualities of their experience - what was there to see, hear, feel on the planets? The goal was to provoke images on all sensory levels, that gave a tangible quality to the abstract idea of bereaved motherhood. In the more specific wording of the task, focus was put on “what is there” on the planet: The child, the participant, and everything else “that is also there”.

This purpose of focusing on “what is” was twofold. It was both supposed to root images of the griever-child relationship in the present moment, and to help this relationship gain a concrete ontological gestalt. The planet motif itself was chosen for several reasons. First, it suggested that a emotional complex like grief could be expressed in terms of a simple image; countering one impossibility (representing grief) by another one (representing it through a planet), was supposed to liberate women “from the difficulty of the undertaking and encourage lateral thinking” (Andersen et al. 2003: 7).

Secondly, on the associative level, the image of the planet was supposed to enable a wide spectrum of associations, both towards the positive, negative and ambiguous (i.e. ambiguous: space travel, astronomy, discovery, flora, fauna, space; dystopian: hostile life forms, apocalypse, adversary; positive: adventure, control, benevolent life forms, escape from earth). The hope was that while the women would draw on the rich connotations of the planet metaphor, they would identify nuanced aspects of their situated grief experience and how it should be talked about (Rosenblatt 2012, Lawley/Thompkins 2000).

At the same time, the shared metaphor of the planet was supposed to pave the way for observing similarities and differences across the representations. Another intention with the planet metaphor was the creation of a context for (covert) game design; a planet is confined in space and time, has a surface and operates under certain conditions. These aspect suits it to become a milieu for systemic thinking without becoming too technical. The idea was to encourage game designerly thinking without enforcing it on the participants. They were supposed to choose themselves how far they would go in thinking through the aesthetics, mechanics and dynamics of their planets.

A material element supporting this intention were the “key cards”, which were introduced as optional tool guiding imagination. In the task’s narrative, they were presented as keys to “enter the planet”, marking the transition from workshop space to imagined planet space. Each participant picked up a card containing an ambiguous term. These terms, some of them borrowed from game design, were supposed to additionally inspire systemic thinking: They were terms like “goal”, “time”, “gestalt”, “space”, “progress”. However, the cards were introduced as “bonus” rather than necessity: it was up to the participants whether to consider the cards helpful.

Next, the participants were asked to visualise their planets by closing their eyes or focusing on a point in front of them. The art table cover was lifted, and the participants were asked to start crafting their images, using as many or few of the materials they found appropriate. They were encouraged to follow their associations and create whatever they liked. They were also given the option to create multiple planets, or redo their planets if they weren’t satisfied. This was a task focused on individual crafting and with little to no interaction between the

participants. The focus was on poiesis (Levine 2014) led by their idiosyncratic material choices.

The metaphorical modelling task was carried out in two phases, moving from a broad towards a more specific direction (i.e. Stepakoff 2014): The three initial foci - child, participant and environment ("everything else") served as entry points for sketching out a rough foundation of the planet.

When all participants had settled on a material form to represent them, a more particular bloc of questions was introduced: What laws and procedures could the women identify on their planets? Was there something that couldn't be done? What role, if any, did grief play on their planet? This set of questions invited the women to incidentally define interreactive elements for their planets, coming up with rules and mechanics. This was supposed to invite a transition from a static towards a dynamic model with a possibility space; game system.

Collective Sharing: The floor gallery

During a coffee break, the results from this "expedition" were arranged into a "gallery" on the workshop floor. When entering the room, the participants found their art works ready to be looked at in the new light of a shared "galaxy". They were asked to examine each work closely and respectfully, before we sat down to discuss each work in detail.

Similar to Stepakoff's "graphopoetic process" (2014) the goal was not to critique the models or distil an inherent "true" meaning hiding inside. Rather, the invitation was to acknowledge particularly interesting aspects, and observe features particularly resonating with their own experience of loss, grief, and motherhood. They were also encouraged to ask questions to the artist. This was supposed to engage artists-onlookers in a personal discussion about motives, backgrounds, and associations evoked by the planets.

The women displayed great enthusiasm in both solitary crafting and collective sharing. It was noticeable that after a phase of withdrawal and creation, they were eager to share their creations, and become mindful observers of each others' metaphorical landscapes. The "impossible" task to express emotion

through a planet concluded in a discussion on the love and loss-related themes embodied in their models.

The Fireplace

Gudrun chose to address the feelings during a still birth she assisted as a midwife. When the death of baby Mary had been confirmed during the 34th week of pregnancy, Gudrun encouraged the parents to consciously attend their baby's birth and to spend some time with her. The model that Gudrun created focuses on the atmosphere during the first moments with the still-born Mary, held in her mother's arms.

fig. 3.3 Gudrun's planet

Gudrun reports that the first image she saw when she received the task was a sparkling flame, "moving between heaven and earth". To model it, Gudrun integrated materials from the table into the workshop space itself, composing a three-dimensional structure out of pillows, threads, foam rubber, textiles, buttons and post-it arrows (fig.). A red and yellow foam rubber arrangement marks the centre of the image; the fireside. The yellow triangular rubber piece dangling from the pillow indicates the campfire's dynamism; around the fire she imagines the scene's protagonists - mother, father, Mary and herself.

Christina observes that the baby is missing from the scene, and Gudrun responds that she chose not to represent any people in the scene. Instead, the focus is on the atmosphere, an atmosphere whose particularities slowly

emerged from the initial image of the fireside. “They were somehow already included in it, but came out step by step”.

There are two materials immediately noticed by the observers; the buttons and the Lego pieces loosely scattered around the fire. Gudrun explains that the Lego pieces are debris-like shards (“Bruchstücke”). Their pointy, fragmented nature stands for the confusing aspects threatening to overwhelm the parents in a situation like this. The black Lego piece leaning against the felt night sky horizon appears particularly intimidating. Petra points to the golden rose which “certainly also has a special meaning”. Gudrun responds that it belongs to the “treasures” (“Schätze”), moments of unexpected bliss and beauty that can also be discovered in the situation.

Beauty and threat coexist on the planet, but how they are seen by the parents is an altogether different story. Father and mother share a space at the campfire, but since they occupy different positions in space, and since the flames illuminate the environment in dynamic ways, their perspectives on the world differs.

The spatial language of the campfire allows Gudrun to shed light on a potential source of marital and relationship conflict after child loss: Both parents occupy the same challenging space, but their gaze on the situation, and their view of Mary diverge. Gudrun observes, for instance, that “the father saw more shards, while the mother saw more treasures”. This dissonance, the clash of perspectives on a shared experience as intimate as becoming bereaved parents imposes an additional burden, evoking Stroebe and Schut’s notion of “secondary loss” (1999).

Gudrun is very particular about including elements providing help and support. The red pellets on the ground stand for “all things nourishing”, which she also identifies with her midwife responsibilities. A focus on the “corporeal basics” is needed, to help parents survive. Another need, expressed through the very setting - a moon-lit night on the field- is a comforting space. Asked why she chose a rectangular, sharply cut out felt piece to represent the ground, Gudrun responds that imposing limits was not intended. On a second thought, she

fig. 4.4 Claudia's planet

asserts that confines are needed to create a safe space. The environment is simultaneously expansive and cosy, confined and liberating.

Another source of comfort on the planet is the principle of timelessness and non-intentionality expressed through the handless clock. The space is not subject to temporal order, or any order which is not conducive to the parents' immediate wellbeing. The skill required to cultivate this wellbeing is an attitude of being in the moment and letting go of control. This skill of giving space to what is, or as Gudrun calls it "putting being in the centre", instead of focusing on what should be, is a skill which, which society fails to provide. Gudrun identifies this as something she has learned from experience.

The fireside planet is full of movement and development: On the micro level, the flames, as well as the full moon and the clouds (wedged between two pillows) are constantly moving. This dynamism has effects on the ground: Shards, treasures and nourishment are illuminated and concealed dynamically; new perspectives on "what is" are possible. The couple can stand up, roam the field, and find new orientation. The arrows are imagined more dynamic than they first appear in the model; they can twist and turn. Last but not least, the clock's hands can be reattached, a temporal order reinstalled. All of these developments are hypothetical and not immediately visible from the outset, however. The most important thing, for now, is putting being in the centre, taking in what the flames dynamically expose to be true, and practising self-care.

The Riverside

As Claudia had shared in the introduction, she experienced the loss of her son Dominik during late pregnancy eight years before she attended the workshop. Other than Gudrun, she does not reconstruct the event from her past, but reflects on the current situation as a bereaved mother, using the metaphor of a river separating two Lego tigers from a Lego sheep.

Gudrun immediately notes that "for me this is really sappy, and due to the river - I am interpreting this as river - everything is really soaked and fresh. Petra adds that the place is "paradisiac." It is a place where, "all you need is there, and I also see this green meadow and the river, and the animals that seem to get along well". For Petra, the path also looks like a board game.

Christina is most focused on the separation between the animals. She asks why the sheep keeps a "safety distance" from the tigers. Eager to respond, Claudia explains, "This is my great-grandmother and this is my son, Dominik", pointing at the Lego tigers. The adult tiger is the one she initially chose for introduction. In the planet model it has gained a new meaning to stand for her great-grandmother. "She was the first person who died that I was very attached to", which is why Claudia chooses her as the protective figure taking care of Dominik. Together, the tigers live in a house whose "windows are wide open. Every moment, someone could come and join them".

Claudia elaborates that her first association was "green" due to her love for Ireland whose landscapes are "constantly green, unlike here (In Austria)". She suspects that she projected her "favourite holiday destination on the planet", and continues to associate: "And I'm the sheep. Ireland - sheep - I am clearly in the observer role". Although the sheep is located "offside; not where the action is", as Claudia puts it, she is still all but absent. Her gaze rests on the tigers playing on the other side, actively and patiently indulging in the spectacle, where the meadow is adorned with button flowers and balloons.

Claudia brings up the topic of grief, explaining that in her model it is expressed through the river, or more particularly, "tears swept away by the river". She points out that the river has undergone a change from a state back then when it

existed purely of tears to a state in which it calmly purls along. The three paper drops remind us of this tearful past, but "the river changed, grief changes".

While Claudia suggests that times of acute sadness have passed, the river still remains, maintaining a spatial separation between the two riversides. What, then, is the purpose of the sheep on the meadow, as it is standing here, now? According to Claudia, it is to be present, as a mindful observer, but theoretically, it could decide to wade through the river at any time. Paradoxically, this is what the sheep desires, and yet what it refrains from doing. It is complacent where it is. "I believe that the sheep looks totally grounded", Christina seconds.

During the closing discussion, the river as a symbol reemerges: Gudrun identifies similarities to the Greek mythological river Styx which divides the realm of the living from the realm of the dead. Claudia's river signifies a transformation, expressed by "changing one's shape" from sheep into a tiger, or "the yellow gestalt", as Petra adds. This is clearly a symbol for suicide, an option which the sheep ponders while complacently observing the tigers. On the one hand there is the promise to reconnect with the dead, on the other hand, as Christina points out, it is far from certain whether and how such a reunion will happen.

The tiger gestalt conjures up diverse associations: Christina describes it as a "power animal", and Gudrun mentions the "Löwenmama ("lioness mother"[37]), a fiercely protective mother figure. While the lion used to stand for herself in the introduction, Claudia re-assigns the role of protection to her great-grandmother; the one who can take care of Dominik where he is now.

Another association is the lion-sheep dichotomy; in a sheep world, lions exist as potential danger, as predators. The women agree that a sheep-tiger relationship does not come without trouble: Claudia points out that the sheep might be scared of the tigers due to the fear of being devoured. However, the women agree that attraction outweighs worry, and that there are other reasons to

[37] There are associations to the "lioness-mother" ("Löwenmutter) which among the German-speaking participants has a colloquial meaning of a protective mother who is ready to fight. The German *Duden* dictionary establishes a link between "fight" (kämpfen) and the lioness mother: http://www.duden.de/rechtschreibung/kaempfen.

preliminarily resist the temptation of crossing the river. Belonging to a flock turns out to be important; there are family and friends on the side of the sheep - albeit not represented - who compel her to stay.

Claudia points out that “the river is equally beautiful on both sides” and the sheep “would just like to observe” the tigers instead of rushing into the river. For Gudrun, this pleasure of observing is also characterised by an aspect of yearning. It is a yearning, however, which appears to be pleasant, just as if the sheep “waved over to a couple of friends over there”. For Petra, both the river and the path on the other side have a certain direction: The river flows towards the future, indicating a time to come in which the path to the welcoming house will be walked.

The world within a world

Christina’s loss experience is the most recent. Well over a year ago, she experienced the still birth of her son Marc at 34 weeks pregnant. Her planet model is an intense engagement with the desire to reconnect to Marc, and imagines an alternative in which the “dream bubble” of life with three children can become reality.

Gudrun first notices how refreshing, “fun”, and animated Christina’s planet is. “That it should be”, responds Christina, since the first image she saw was a meadow, whose features Christina describes in get detail. “It wasn’t a (low cut) English lawn, but a forest-countryside meadow, a farmer’s meadow”. These features are important, since one of the meadow’s central affordances is to “hide in it”, and to “simply relax”. All Christina hears on the planet is the laughter of her two living children who joyfully roam the planet without constraints. All the while, Christina holds Marc in her arms, and happily tries to catch up with her children, following either and none of the multiple paths that emerge but lead nowhere specific.

“What are the pins and the button?”, asks Claudia, noting the two safety pins fixating two big black buttons. Christina explains the the safety pins are “only used for fixing” (“Montage”) of the buttons. The buttons themselves stand for a number of abysmal craters which - to Christina’s surprise and dismay - are also scattered around the planet. She admits that her first reaction to encountering a

crater was fear and shock: “What if something happened to my living children? What if they fall?”. However, moments later, she realises that on *her* planet, no such thing can happen to her children. The safety pin literally “fixes” reality, imposing the law that no family member on the planet shall be negatively affected by a crater.

Christina mentions that the word on her key card, “goal”, did not matter to her since “there are *no goals* on this planet, simply roaming and lying down in the grass. And enjoyment”. During discussion, she repeats the importance of goallessness several time, indicating that achieving goallessness may, in fact, be the goal.

fig. 3.5 Christina’s planet

“The one thing that I notice, somehow, for me it’s such a world inside a world”, observes Gudrun, pointing to the double layers of paper and felt at the foundation of the planet. Her association is that the paper is “more real” than the felt, and that “from that reality something spills over, which is however not dangerous”. This resonates with Christina, who admits that “reality of course doesn’t look like this. But that (felt) is the ideal planet” from where a small part of “reality” was visible. “In this case reality was the sky”.

From the comfortable, unthreatening confines of the ideal planet, however, there is no particular desire in facing that part of the sky. When I asked

Christina what she saw when she looked up from the planet, Christina said: "Well, only clouds and birds… a sunny day. No grey clouds, but rather friendly. You wanted to cuddle the clouds." Christina mentions the weather condition more generally, which was due to change ("sometimes it snows"), but none of these affected their mood or feeling of calmness and aliveness. "Our mood", she says, "is independent of the weather".

Overall, the symbols used by Christina underscore the central mission of a protective, sheltering planet; the meadow and its high grass which offers an excellent hiding space, the custom-tailored crater physics preventing accidents, the felt ground covering the harsh reality of the paper ground, and the detachment from weather conditions potentially uncomfortable. Thus equipped, the planet offers a rich "world inside a world", where inhabitants and visitors can go about to carelessly enjoy the many attractions and activities. Although this might not be what reality looks like, the space invites Christina to celebrate the presence of her three children. "Grief", Christina says, "does not exist here".

The cave

Petra also lost her third child, but well over 10 years have passed since the event. Nevertheless, the question of her son's place in the family system continues to matter. In her model, which she already calls "my game", this is explored through the image of a cave.

The first question comes from Claudia, who wants to know who the protagonists in the scene are. Petra explains that "it was totally clear to me that in my game… you need to bring people," which in the model are herself, her three living children, her husband, and a good friend who was important for her during the acute phase of grief. Together, these characters appear in a "cave, dark, but comfortable, tight and cuddly". Inside this cave is another, smaller cave where Emil lives. This small inner cave can be accessed and left at will by all characters, but one rule the planet imposes is that Emil stays in his cave.

The cave, as Petra explains, is grief itself; the protagonists can enter or leave it, depending on their mood or character. Petra compares this to the back and forth of the Yoyo toy which she chose in the beginning. "Sometimes one enters

the inner cave, or the outer one, sometimes one exists completely". However, there is a collective task which needs to be mastered through cooperative effort of all family members and friends present. "Emil needs to reach a certain size to be safe", and his growth can be facilitated by feeding and holding him. Once Emil has grown strong enough to survive in the inner cave, the family's work is done and they will fly away in a spaceship; the goal of Petra's game.

In this scenario, shape and form are important. Petra is the only participant who includes the key card as important design element (see fig.). She reports that the term "gestalt" personally resonated with her because Emil was born with a physical difference. In the game, it was important for Petra that all her children had the same blob shape, indicating the equal status of all her children, irrespective of whether they lived.

Claudia observes the distinction between adult shapes (square) and the blob-formed children. The appearance of these colourful, different-shaped characters reminds Petra of the French cartoon characters from the animated series *Barbapapa* (1973-) by Annette Tison and Talus Taylor. Their main ability is wilful shapeshifting. Like the *Barbabpapas*, Petra's characters have the ability to transform as they wish, enabling them to interact with their environment in different ways. Another implication is that like the Barbapapas, Petra's characters are social, friendly, and family-oriented. This emphasises that the task of overcoming acute grief, rather than something depressing and lonely, is a social activity, fostering family cohesion.

Like in the other planets, friendliness was also reflected in the atmosphere of planet, which Petra also called an "island". Claudia is fascinated by the feathers, which stand for the bird songs that are audible from different parts of the cave system. However, these sounds are as flexible and customisable as the lighting of the scene. Adding to the pleasant shape-shifting of protagonists, players should be empowered to select soundscapes and lighting according to their tastes.

Gudrun mentions that "the eyes are one thing that I especially note", due to their clarity and orientation. There is a certain perceptivity, "not even the children are turning away", but everyone seems to look into the same direction,

fig. 3.6 Petra's planet

seems to be focused on something. She also observes the clear structure of the inner cave which stands out in terms of both colour and texture. The material makes her think of qualities like "making a nest, making it warm, soft, ready to cuddle in".

One point of discussion concerned the question of farewell, and how the family were to complete their task and leave the planet. Was the spaceship something to be built by the player? Did the player have to find parts of the spaceship? It was clear that the spaceships was a reward for mastery; it represented overcoming, and the end of acute grief, but this mission of overcoming was connected to the family's cooperation as a team. "It is important that everyone enters the spaceship at the same time", explains Petra. However, the type, difficulty and pace of tasks accomplished by different family members varies, and some protagonists might be already done while others still need to stay in the inner cave.

For Petra, respect for diverging coping styles is precisely the point. What matters is collective support, and as Gudrun recommends "maybe the ones outside can assist the ones inside". This resonates with Petra and her idea that "feeding and caring" Emil can be achieved in different ways. What matters is the reunion in the end, when the family meets at the spaceship.

Discussion

The kind of metaphors that emerged during the workshop grounded the group discussion in concrete images, mechanics, and rules. In what follows I will focus on the particular metaphors that were used to make something unknown (attachment, loss grief) tangible via something known (the planet terrains). In Lakoff/Johnson's (1980) terms, the women used the source domain of the planets to make the target domain of the mother-child bond speakable. I will first review the way the women used materials and architecture to describe their inner emotional processes. Then I will look at similarities and differences in their attachment and grief metaphors.

Emotional Terrains

Looking at the various planet terrains, what immediately stands out is the choice of soft, comfortable and warming materials. This indicates that the women's inner representations of the mother-child bond is in terms of a welcoming and accommodating space. All women chose felt to model at least parts of their planet's surface. Felt is a material which is pleasant to touch and walk on; in everyday usage, it occurs in the context of protecting and warming (clothes), padding (furniture), and dampening (piano keys). On the planets, felt creates a protective "foundation" on which the loss event and its aftermath can be engaged. In Christina's "world inside a world", this foundation is shaky; the felt has a double protective function, covering a threatening paper ground which stands for an overwhelming reality.

The architecture of each planet gives them a sense of structure and order, even if this order is intentionally missing in some cases. The architectural aspects of the fireside and the crater planet, for instance, afforded free roaming and uncontrolled exploration, but also give less direction than planets whose architecture is neatly designed. Such "messy" planets respond to a recent experience (Christina), or the immediate aftermath of loss (Gudrun), while the more systematic architectures reflect on an experience that had happened some time ago.

If we look at the landmarks characterising each planet, the "messy" planets contain a collage of scattered materials whose main purpose is to *be out of time,* and be "taken in" by the protagonists, literally (nourishment) or figuratively

(soap bubbles, fauna/flora, shards/treasures). The fireside as landmark creates flexibility through dichotomies: It sheds light and shadow, it moves between sky (up), and earth (down); it therefore articulates both hope and despair, love and separation. The main affordance of this place is to "sit through" this ambivalence, to "face" it by giving it attention, following the movements of the flames.

On the world within a world, there is no landmark that characterises the "centre" of the image. However, there are the symbols of the high grass, the craters, and the sailing boat which characterise the emotional affordances on the planet. First, the high grass exists almost everywhere on the planet, and it comes with the double function of being soft - embedding the reunited mother-child connection - and being an excellent hiding place. The grass is a protection against the antagonist of the sky (reality), it adds a protective layer to the planet surface, much like hair protecting the skin.

The craters, on the other hand, are reminiscent of possible dangers that exist outside of the planet: Christina mentions that where there are craters there is no grass. Where there are craters, the landscape is exposed; it is connected to fears, which, through the absence of grass, is a fear of facing reality. This is where Christina introduces custom-tailored crater rules defying gravity, which prevents her children from falling. The sailing boat has a similar purpose as a feature reinforcing comfort in the light of danger: Its function is to hop on and float in an undetermined direction, while, as Gudrun observes, the sails are filled. The boat is moving, but the purpose of this movement is enjoyment rather than travelling. Everything on the planet, then, serves as "safety features" disarming potential fears related to another child loss.

Claudia's river introduces a clear boundary between two distinct spaces, the realm of the living and the realm of the dead. It is both a natural formation and related to magical, transformative properties: Going through it is risky; it stands for the unknown transition from living to dead. The river puts into the centre of attention the theme of separation and yearning. It splits the planet in two halves, both of which are desirable and welcoming, but one of them would mean leaving the other side forever. The purpose of this environment is to negotiate feelings of separation in the light of one's own death: The yearning for "the

other side" is a wish to reconnect with the lost child. On the other hand, following this wish is risky; it involves entering unknown waters and changing one's form forever.

The architectural element of the cave introduces a different regulation of space between the living and the dead. Unlike in the river model, the living can move back and forth between the space of the dead (inner cave) and the living; they are responsible for managing Emil's survival in the inner cave. Like at the riverside of the dead, Emil is confined in a certain space, yet this space is more personal and can accessed without risk. It is more akin to a nursery than a realm of the dead. When the family has left the planet, it is a place where Emil can live forever.

Weather, on all planets, was used to characterise emotions on the planets. Christina was most particular about the variety of weathers which, however, did not affect the moods or activities of the family. She went into much detail about sunshine, snow and wind, which all served the purpose of creating variety, rather than being an annoyance. Agency is detached from weather states.

A different take on meteorology is used in the cave planet, where players can select lighting and sounds themselves, exerting full control over the kind of atmosphere they find appropriate. Claudia characterises the weather on her planet as more stable, likening it to the weather of her favourite holiday destination. It is fascinating and pleasant to her how little variance there is in between seasons.

In Gudrun's night scenario, meteorology plays a role in the way clouds and the moon move across the sky and add to the ambivalent lighting/shadow atmosphere. Overall, the weathers repeat the emotional themes of each planet: Claudia's "holiday" weather expresses yearning, Christina's detachment from weather utters the wish for protection, Gudrun's night sky adds to an ambivalent being in the moment, and Petra's selectable weather indicates a wish to handle emotions practically.

Attachment metaphors

On the conceptual level, one prominent symbol for attachment was *looking and observation*. On the fireside planet, engaging in relationships is expressed through the act of noticing treasures and shards around the fireside. In the riverside metaphor, the sheep's main occupation is displaying interest in the activities on the other side. Observation means cultivating a relationship with the deceased.

This metaphor highlights the desire to continue bonds with the dead, but from a position that is rooted elsewhere. While there is some interaction with the baby, feeding and holding it, the look is the central interactive modality occurring on all planets. Something that is looked at can be engaged and identified with, but that cannot be changed. However, there are different ways of looking at the facts of life: There are shards and treasures (fireside), there is the loving attention of the lioness, but there is also danger (river).

Secondly, a recurring image is *relationship as feeding*: In the cave model, the baby needs to be fed in order to grow and survive. This is in line with Umphrey and Cacciatore's observation that bereaved couples often conceptualise their relationship metaphorically as something that grows (2014: 2). Here, instead of the conjugal relationship, the metaphor applies to the family-child relationship, and the way it needs to be nurtured by the whole family system to sustain itself. The task is to find out what food is appropriate, and who can provide it in the given constellation. Relationship as feeding highlights that everyone needs to be fed, and that there are different sensitivities around what kind of food this should be.

In the fireside model, "the nourishing" is more abstractly included as red pellets on the floor. It suggests that nourishment is simply available for those who pick it up. The question of nourishment also emerges in the sheep model; sheep and grazing are closely connected, albeit with a stronger association to self-care. Feeding oneself through grazing does not only stress the feeling of complacency; it also has a communal aspect. Grazing with one's flock, i.e. sharing a meal with friends and family.

Thirdly, the metaphor *relationship is collaboration* appears in reference bereaved family members and friends. It features maybe most prominently in Petra's imperative to solve a collective task in order to "master" acute grief. Relationship as collaboration stresses the notion of work and action, as well as the often overlooked fact that grief does not exist in isolation but as part of a social system. In the cave model, collaboration also usefully highlights the difficulty to find out about one's role in a fluent network of interrelations. It also sheds light on the existence of complementary or potentially conflicting grief styles. To collaborate means to explore what works and what doesn't work in a specific social context, and sometimes against one's immediate interests.

The fireside model shows that relationship as collaboration also faces the risk of failure. A shared trauma may be faced from different perspectives, requiring negotiation. There is the possibility that the parents part ways due to their inability to collaborate and accept each other's points (of view). On the ideal utopian shelter planet, this uncomfortable realisation is unwelcome; Christina stresses how little she had to "care about other's views"; part of the planet's purpose is to offer escape from social pressure.

In Christina's and Petra's models, relationship was also expressed through the metaphor of *proximity*. When we look at the way baby and mother are arranged in Christina's planet, they take an overlapping space, the baby attached to her in the most literal way: Attachment is a matter of sharing the same physical space. In the cave model, physical proximity to the baby is a requirement for feeding and holding the baby, and thereby getting closer to the goal of making him grow. The difference between these planets, then, is that in Christina's model the contact to the baby is sufficient. There is no further action required than to hold and "feel" him.

In the cave, getting close to the baby is not necessarily a task everyone needs to carry out. There is more focus on the negotiation of space in terms of figuring out a balance between proximity to the child and distance, according to the abilities and needs of everyone involved. Nevertheless, both planets share a maternal yearning for establishing and maintaining physical contact with the child, regardless of everyone else's wishes. Proximity and contact are also introduced on the sheep/tiger planet, where they also serve as metaphors for

care. However, the river disallows physical contact between mother and child. The loss event introduces a cesura (the river) between them, which changes the relationship from a matter of proximity towards a matter of looking. This change indicates that the relationship does not stop; it merely transforms. Physical proximity as relationship continues to matter on both sides of the river: The sheep is part of a social circle, a flock of sheep; the dead son is in the custody of the great-grandmother, a new caretaker.

Metaphors of Loss and Grief

When it comes to loss and grief, the metaphors used in the models contain motion, orientation and setting. Motion is a strong indicator of power and agency; the loss of motion, in several planets, expresses a loss of agency and action. In the fireside model, the flame moves, while both characters in the scene, the shards and treasures, as well as time itself, are still. It is the loss situation itself that sheds light, and therefore determines the possible perspectives on the world. Since the fire's movements are organic, random, and unpredictable, so are the perspectives imposed on the parents. The latter will have to face what they see and believe to be true before they can start moving and actively negotiate what to do with their situation.

In the riverside planet, the river both stands for grief and is the central object in motion. Other than a flame in motion, a river in motion has a direction; it goes somewhere, indicating a beginning and and end, as well as a journey between them. However, the metaphor is not to travel on the river, as in other frequently used relationship metaphors (Umphrey and Cacciatore 2014), but to contemplate its movement, origin, and the question what would happen if one waded through it, crossed it.

What fireside and riverside have in common, then, is that the realm of the living is characterised by stillness, while action stands for being or becoming dead. In fact, the tigers on the other side playfully move about, while the role of the sheep is one of a physically passive onlooker only mentally participating in the activities on the other side. On the cave and shelter planets, the contrast between movement and stillness are reversed; it is the bereaved who engage in movement, while the dead are the passive beneficiaries of action.

On the world inside a world, movement is used to literally hide from loss, represented by the threatening sky of reality. Swift movements through the planet's high grass are required to escape this threat, and achieve the goal of comfort through “hiding”. On the cave planet, action is goal-led, coming most close to the grief work imperative discussed in a previous chapter.

Orientation plays a role on all planets, either as a possibility in the coming future (fireside), as the direction of one's gaze (sheep planet), as a feature of architecture (in/out orientations in the cave model), or as something that was explicitly avoided (world inside a world). Orientation is consistently used as a metaphor to express intentionality; a force that did not matter in environments which were dedicated to being in the moment (fireside, world). Orientation is connected with the need to face loss and deal with it through grief. This is why on Christina’s planet, orientation is not yet on the horizon, while in the fireside model it is an explicit possibility.

In both the sheep and the cave planet, orientation is fully realised as a devoted gaze or action towards the deceased. How is a sense of orientation (or the possibility thereof) materially expressed? In the fireside and the cave model, arrows are used to indicate that direction and structure are possible or existing. In the sheep model, a clarity of perception and orientation are expressed by the positioning of the protagonist; the sheep's body faces the tigers. Here, the physical posture of the sheep indicates the direction of interest, and with it a certain intention. In the cave model, interest and direction are coupled with action. The architectural structure of the cave facilitates a certain protagonist behaviour. Different directions can be found depending on their needs, intentions, and the ways they can shift shapes. These needs and intentions are a matter of being learned by finding out what direction is appropriate for every character in the game.

Implications for Game Design

These emotional landscapes point to implications for game design, in their conception of time, actions, and aesthetics. A commonality on all planets is the notion of timelessness. All models express the wish to spend as much time as possible with the deceased child: some women expressed a feeling of "time standing still". On the level of game design, this invites a contemplative

atmosphere, excluding by default fast-paced dynamics, and time-based challenges.

This does not mean that action and challenge should not play a role. All planets feature certain tasks that needed to be carried out; a purpose, and by implication a certain goal (paradoxically, even goallessness is a goal). The many relationship metaphors materialised on the planets have something in common: They all revolve around being with, nourishing, and caring for the child. Whether it is paying attention through looking, being close, holding, or feeding; these activities express the wish for action with and around the dead child.

There is some understanding that grief as the processing of loss comes with a nourishing quality, and with an agency and intention directed towards the well-being of self and others. In terms of game design, this points to exploration and puzzle mechanics, and a strong focus on atmospheric elements, rather than kinetic, skill-based challenges.

Another commonality is that the child, though always in the centre of attention, does not have agency. As little tiger and baby in the cave, the child is confined in its place; it can sometimes be carried, but not walk itself. It does not have its own perspective. From a game design angle, the protagonist of the game should hence be the mother rather than the child. Her abilities are widely expressed as caretaker able to hold, feed, give shelter, and even shape shift to fulfil the child's needs. This suggests that the child takes the role of a dependent NPC receiving attention.

In terms of aesthetics, the planets were consistently beautiful with threatening elements (shards, craters) smoothly integrated in a stunning environment. The women were somewhat specific when describing the planets' soundscapes as mantric, full of laughter, and bird tweeting. For game design, this suggests that some care needs to be invested in the design of visual and aural features, and the creation of a positive, sensual atmosphere creating a digital comforting “nest” for the deceased.

3.3 *JOCOI*[38]: A GAME ABOUT PREGNANCY LOSS

In this section, I will go into detail with the design considerations behind *Jocoi*, discussing features of the final prototype and the way we got there. In previous write-ups of this process, I focused on the movement from brainstorming to final prototype in chronological order. The focus here, however, is on demonstrating how we adapted design devices for the participant context. The intention is to demonstrate how the ergodic continuum works in practice and can be used to address lived experience. This is why this chapter structurally resembles previous analysis chapters. Furthermore, a similar structure emphasises that *Jocoi* is part of a game design tradition, situated in a certain history of games which have used different strategies to make love and loss tangible.

Based on the women's priorities emerging from the planet models, the game design goal was to respond adequately to these themes through a video game. This required a balancing of design autonomy, accepting liability over the process and final prototype; but also implementing it in a way that would appeal to the women's tastes. The idea was to continue to the muse-based design process in a way that would "amuse the muses", and lead to interesting observations about designing for grief.

Conceptualisation and Brainstorming

The first weeks of development were used for brainstorming and paper prototyping. Association exercises were used to explore planet features in terms of game verbs: How would activities of looking, feeding, or holding work in a game?

Based on Rusch's (2017) reminder that it is useful to develop a core metaphor around which to design the rule system as early as possible, we initially gravitated towards the cave and its clear design vision. In fact, as Petra says, it is "already a game", and as such appeared as most likely starting point for design. It already comes with a clear starting proposition, a core mechanic and an end goal: One starts as a multiple character system navigating a cave in an

[38] *Jocoi* is currently available for MacOS and Windows on: https://enibolas.itch.io/jocoi

effort to feed and thereby help the baby survive. There is a clear progression; the baby is small in the beginning and grows over time as the family learns to organise themselves. There is clarity in the kind of gameplay; a cooperative puzzle mechanic. There is also a central conflict; the baby may not leave the cave, and the protagonists must find the parts of the spaceship helping them to leave the planet collectively. The goal is to gain access to building materials by feeding the baby sufficiently.

Paper prototyping this scenario was helpful in exposing some questions - and challenges - we had initially overlooked. How did one control the characters? Since there were multiple characters, did we want to make a multiplayer game? On the other hand, one chooses the characters in the beginning. This suggested a single-player game with changing roles, a technical challenge. How should this collaborative network of people be introduced? What tasks should the characters carry out? They should shape shift (again, a technical challenge), and feed the baby, but where did they find food? How should the cave be represented? One should be able to go in and out, but from which perspective? How should the baby be represented? Should the spaceship parts be hidden, be built, or be found? Addressing each question led to an every-growing feature list and the frustrating insight that we had successfully cultivated a brainstorming monster that was about to overwhelm the team and its abilities.

The paper prototype swiftly demonstrated that building the cave scenario was not feasible within the given pragmatic constraints. Furthermore, the organic scene of the cave somewhat disallowed addressing the origin or "history" of the baby in the cave The baby had been explicitly born there, which meant that attachment was already taken for granted. How could that be communicated? Question after question emerged from the paper prototype, until we decided, not without frustration, that the core metaphor was not clear enough.

Preliminarily leaving the cave scenario behind was helpful to reestablish contact with the other models and investigate their features anew. The students were asked to identify a single metaphor from the planets that resonated most strongly with them. While they discovered a variety of interesting starting points, we were collectively fascinated by the image of the river and its twofold potential to tell a bonding story. First, as a landscape formation, the river-as-

grief metaphor contains a notion of historicity: The river had been created over time, and its flowing, constantly changing quality expresses that "grief changes over time" (Claudia).

In the workshop before, and in the design team later, this image sparked conversations about past and future: How did the river get there? How had the world looked like before mother and child were separated? Had there been a prelapsarian universe where they grazed together? In the now, what would happen if the sheep walked through the river? In other words, the image allowed us to reflect about all moments in the attachment, loss and grief journey. Secondly, the river metaphor was part of a fable world; a world in which sheep and tigers negotiated their relationships, and thus symbolically raised questions about the ongoing connection to the dead, and the mother's responsibilities in the world of the living.

Playing at Mothering: *Jocoi*'s attachment devices

The player enters *Jocoi* through a start menu displaying an animated campfire whose meaning is yet unclear. When pressing "play" the game starts with a black-and-white tutorial, in which the game's main controls are explained. The game is played as the mother sheep exploring a sin-lit 2.5D meadow with her little lamb. A flock grazes idly in the background. Apart from a meditative forest soundscape, no music is playing.

By pressing the mouse buttons, the mother sheep navigates across the screen, followed by her baby linked to her by an invisible tether. Pressing right and left mouse buttons, flowers and patches of grass can be eaten or fed. This adds music to the game, which stands for the mother-child relationship. Playing around for some minutes, the idyllic atmosphere is suddenly broken by an earthquake, removing lamb and music without explanation. Based on recollections of the soundscape, and aided by hints one can hear when looking across the river, the player engages in commemoration, eventually acquiring the ability to move on with the flock.

Rules

Two aspects from the planets fed into the decision of rules and mechanics: First, in the mother's inner representations, their baby was consistently modelled as the recipient of care or nurturing efforts. This also means that there was a clear boundary between giver and receiver of attention, who is the agent and the object of love. In what we have seen in previous games, this would speak most for a dependency device. *Shelter's* representation of nurturing as feeding comes closest to the women's envisioning of core activities in the game.

However, a second commonality expressed in the planets was the wish for a timeless, carefree place, in which mother and child could celebrate their bond beyond the pressures of lived reality. In gameplay terms, this speaks against *Shelter*'s fast-paced action mechanics, and the constant peril of a starving, drowning, or attacked kit. More generally, it suggested the exclusion of mandatory game goals as such, even though some planets included at least potential goals.

What seemed most appropriate was an exploration or puzzle mechanic with the central focus of "feeding and caring" (Petra). Since the child is both the object of love, and the mediator of a maternal identity we found it appropriate to make gameplay revolve around building something together. By left-clicking on a flower, it is fed to the lamb, using a mouth-to-mouth feeding action similar to *Shelter*. The consequences of this action are expressed symbolically. By feeding the flower, the player simultaneously selects a music track and a fur pattern, which is added to the lamb. By left-clicking on the lamb, the camera zooms into a close-up of the lamb, allowing the player to take a closer look at the new fur. Simultaneously, the flower's music track starts looping, as a more subtle illustration that the world has just become a richer place. In this world of unlimited parental control, sounds and fur patterns which are no longer desired can be removed by feeding a patch of grass. This responds especially to Christina's the wish for a carefree bonding experience without consequences.

The two devices resonating most with the women's wish to experience closeness with a baby without agency of their own were dependency and synergy: By following the mother and being fed, the lamb is dependent on her service. On

the other hand, its fur and the music it “gives” to the world co-constructs a shared environment which is pleasant to inhabit for both.

The women’s inclusion of family and friends as available resources is expressed in the flock’s quietly roaming around in the background. In an early version of the game, the flock’s only function was to be there, and provide a visible context of belonging. This relative passivity, and their unavailability for interaction made the flock appear ignorant, even arrogant to some players. This was particularly tangible in the moment of loss, when the flock grazed as though nothing had happened.

Although this resonated with some player’s personal experience of a helpless surrounding unequipped to deal with someone else’s loss, the flock should also represent a support network as described by the women. At the same time, a solution for respawning the meadow’s flowers had to be introduced, and provide resources for bonding seemed appropriate. This is why when left-clicked, mother and lamb approach the flock and the whole group lie down to dose and cuddle. The weather animation triggered by this action was based on the mothers' associations to weather change. While cuddling, the sheep can observe, together, how different seasons go by, and decide when to wake up to a respective weather state.

Another left-click on the flock causes the current weather to freeze and spawns a fresh array of flowers. Four weather types are available, each coming with their unique set of colours and sounds. Since each weather state offers a different variety of flowers, which will again feature different sounds and fur colours, the flock thus stands for the “safe base” from which these new grounds can be explored.

Initially, we wanted players to discover this option rather than be told about it through visual prompts or head-up displays (HUD). However, the women’s wish to be told about controls beforehand led to the conclusion of explaining this interaction in the initial tutorial.

Apart from the open-ended activity of customising looks and sounds, “being with” the lamb, there is no goal in *Jocoi*. However, the game’s only HUD element, the flower bar on top of the screen, opens the floor for interpretation.Some players have taken this as a hint for a puzzle: Does one

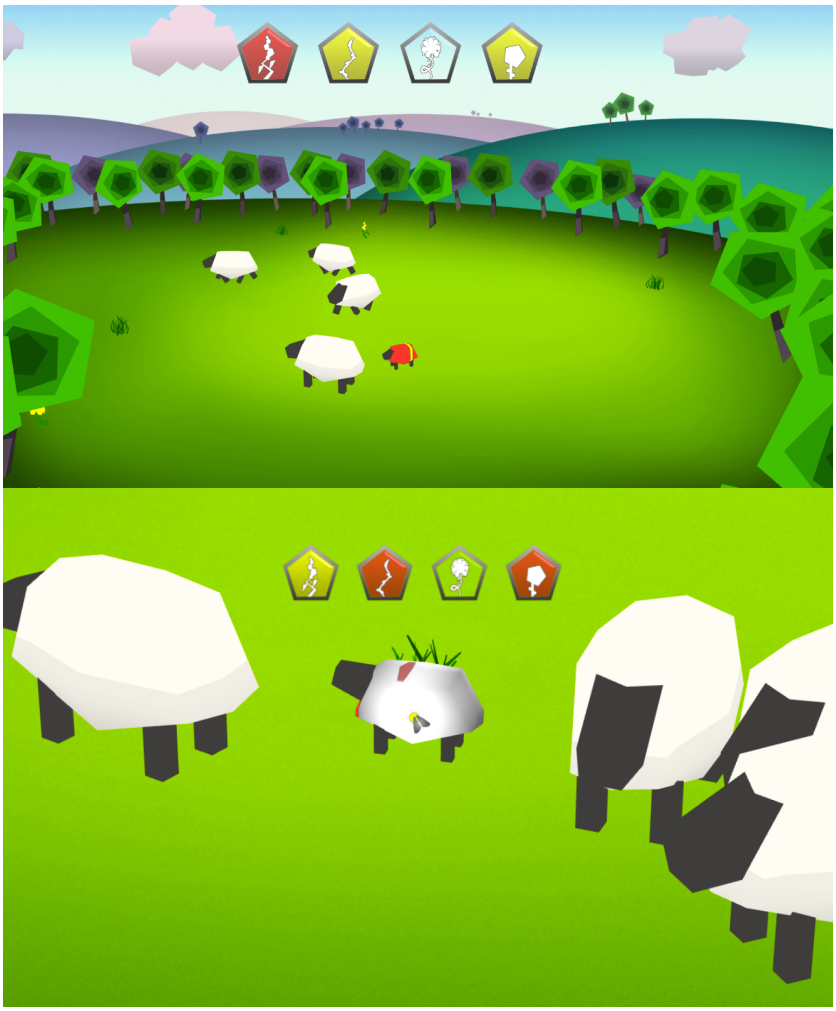

fig. 3.7: *Jocoi* iteration 2; flower bar and "admiration" function

have to collect flowers of all patterns or colours to "win" the game? This concern for doing things “correctly”, and gaining control over a situation, in which there is none, resonates well with the project of parenting. *Jocoi* offers space for projecting the wish to objectively “know” which flowers are best, and which music tracks are the “winning” combination. The alternative would be goalless exploration, in which the player listens to what feels right in the moment

irrespective of objective external restrictions. In *Jocoi*, like in life, finding "truth" in parenting is possible, but only through projection.

On the invisible level of code, the number of times the lamb is fed flowers and patches of grass is added to a counter calculating the moment of separation. We intended to make this moment appear randomly, “out of the blue”, interrupting the meditative, mundane bonding phase.

Controls

Jocoi's simple mouse control scheme responds to two intentions. First, we wanted to reach players beyond the established gamer audience, who might be alienated by complicated controls. In her recent essay *Mouse Power* (2016), journalist Emilie Reed points to the forgotten role of the mouse as a pervasive piece of hardware in many homes and offices. While he identifies the mouse as something which made her feel empowered when first learning about computers, it is consistently rejected by game studies as inferior entertainment device (Reed 2016: 113). For my purpose, the ordinary, low profile status of the mouse comes in as advantage. Since the women know this hardware contexts other than gaming, it does not pose an immediate threat. In addition, for players like Reed, who is attuned to mouse-based exploration adventures from the 90s, the mouse offers nostalgic value.

The second intention was to model a sense of the baby’s presence in the mother’s life, and the mouse allowed us to do so through a simple binary mapping. As discussed earlier in the context of *Ico*’s call/response and *Brothers*’ tandem controls, the physical dimension of controllers can play an important role in naturalising a relationship between video game characters. We adapted this principle of zooming in on a character’s need by representing them through a control elements.

We divided the mouse in two “hemispheres” representing different needs of the mother sheep. While the left click represents the need to take care of the baby, the right button represents the need for self-care. Most of the actions in *Jocoi* can be done through either of these “lenses”. For instance, if one presses the left button on a flower or a patch of grass, the “nurturing” lens is triggered, and the

mother feeds the lamb. Clicking right on the same object makes the mother feed herself. A similar principle applies when walking around by clicking on the meadow. A left-click triggers a playful, child-friendly skipping animation, while right-clicking triggers the mother's own, calmer and slower pace.

In designing this dichotomy between left/right mouse buttons as nurturing/self care, we aimed at creating an imbalance which invites the player to first exclusively focus on the act of nurturing. This responded to the women's reports that all actions on the planet revolved around the mother-child connection. The deliberate imbalance between child-focus and self-focus emerged as a result of two factors.

First, rather than a neutral piece of hardware, the mouse controller is constructed according to a dominant hierarchy between "first" (left) and "second" (right) mouse button. Using the index finger, we use this "first" button to open website browsers, applications, and documents, while the right mouse is mostly used to open contextual menus, and provide background information. We expected this convention to impact players' relation to *Jocoi* as well, making the left mouse button more important by default. This convention is in line with a visual tradition of framing left and right information as Given and New (Kress/vanLeeuwen 2006). In the chapter on Brothers, I have addressed how game controllers translate this visual tradition to the haptic dimension of the controller/hand space. On *Jocoi*'s mouse control scheme, the Given, as the kind of information we take for granted and that is no longer challenged, is mapped the index finger, while challenged, less established, New information exists in the space of the middle finger. As a result of this visual-spatial regime, we expected the left mouse button to be more in players' focus than the right one. Secondly, additionally to being conventionally more important, *Jocoi* constructs the left mouse button to mediate more interesting experiences. Mothering activities have a greater impact on the game world than actions of self care. In fact, eating a flower or patch of grass during the first part of the game seems superfluous, characterising the mother's initial feeling that attentiveness to the child is all that counts.

Over the course of the first minutes, these dynamics reinforce an engagement with the left side of the mouse, which teach the players that the left mouse button is all that is required to play the game. In fact, the players may forget about the existence of the right button altogether. The player is now conditioned to the simple principle of feeding and tending to the child, the mother-child bond has been normalised.

When the lamb disappears, the left mouse button changes its function. Without the lamb, the mother sheep cannot use it to walk or nurture. These were contextual actions focused on the lamb. Instead, the left mouse button, pressed on any object in the game, elicits a scream. Based on user texting, this has been an impactful design decision. Players expressed helplessness, and a sense of shock when the mother-child controls were no longer available. For a play tester who was also a father, the controls were "too much. This game shouldn't be shown to parents". Most observed players showed a moment of helplessness and frustration, when they repeatedly pressed the left mouse button, listening to the same "bah" sound over and over again. This is an intended moment of control loss, when established mechanics fail to work, and impose a need for adjustment. It is in this moment that the self-care skills mapped on the right side of the mouse come into play. Following a short moment of stagnation, players usually find this option, and "relearn" the right mouse button.

Space between bodies

As mentioned before, the women consistently modelled mother-child space in terms of two priorities, intuitiveness and safety. In three out of four models, the mother's physical presence to the child is a default condition, or a possibility on the planet. Christina reports that the ability to hold and be there with Nino as most fulfilling. Petra defines picking up and holding the baby in the cave as an ordinary, essential activity to help him grow. Even on the fireside planet, where people are not represented, the baby is implied in her mother's arms. In none of the scenarios is this connection threatened or challenged.

We therefore found it most appropriate to use the *invisible bond* spatially linking mother sheep and lamb. As described previously, particularly in the *Shelter* chapter, the invisible bond device defines the space between game

characters as given, and therefore as intuitive. It also involves a power divide between leader and follower, nurturer and nurtured, which resonates with the way the women described their connection to the child. In *Shelter*, the effects of the invisible bond are twofold: The connection emerges from their tribe-like presence, their spatial proximity by default, which makes them strive for survival as a collective. Although this is not spelled out, players have felt it that way (Walker 2013, Ellison 2013).

While the invisible bond seemed appropriate to frame the mother-child relationship in *Jocoi*, there is also the relationship to the flock. This stands for the support by friends and family members which the women reported to have some importance. Other than the intuitive mother-child relationship, however, contact with the flock is voluntary and needs some initiative (clicking). The role of support is expressed through the "cuddling" mechanic which turns the collective into a temporary *union*. As described in the Passage chapter, the union device eliminates the boundaries between characters, and turns them into a single unit. Rather than controlling this unit, however, players of Jocoi control the time at which to connect and at which to let go of the collective support. By doing so, new resources (flowers) are spawned, symbolising the nurturing quality of the family bond.

This means that there are two types of inter-character spatiality; a spatiality describing the intuitive, uncontrollable bond between mother and child, and a spatiality describing the wilful connection to a collective in the background. In *Jocoi*, spatial proximity deliberately exists without the aspect of adversary. Rather than alert, we wanted players to be relaxed and observant, while exploring the affordances of the mother-child bond, and support of the flock, rather than being afraid to lose them. As the women described it, there is time to "just be", and we focused on this feeling of being by creating an uncontested space. In terms of level design, this is the playing field of the meadow separated from the forest through an invisible wall. In a previous iteration, we toyed with the idea of foreshadowing danger by triggering a growling sound effect when the mother sheep walked too close to the forest. When some test players identified the game as "horror game", we decided to remove this element, but kept in mind the important role audio can play in framing events.

Visual Design

When it comes to visual and character design, the decision of using sheep resonated with the fact that animals were recurring symbols in most of the women's models. Besides the sheep and tigers on Claudia's planet, Petra could hear birds from inside the cave, and compares nurturing the baby to something a bird mother would do. There are wild animals on Christina's planets, including giraffes and elephants. This suggested that animals were appropriate player proxies for the women.

Our decision to use simple graphics, made up of similar pentagon shapes responds to the observation that shape seemed to matter: Christina and Petra chose similar rubber plates to represent family members, including the deceased baby. In both models, the shapes used to represent children and adults resemble each other, and in Petra's case this is a deliberate choice. Pointing to her key card, which says "gestalt", Petra points to the special meaning of this term, given that her baby was born with a physical difference. Her wish to represent him in terms of a "normal" shape competes with the wish to acknowledge the form he was born with. Looking "like the others", "looking normal" stands for the wish to include the dead baby among the living, and give it equal importance. We expressed this wish by making child, mother and flock in the first part look alike.

While in the beginning of the game, the whole flock is white, the colourful patterns which form on the lamb's fur are supposed to express the child's individuality in the eyes of the mother. The mother as an agent of attention is further stressed by the possibility to zoom into the lamb's fur and look at it in detail. This means that there is sameness in the beginning, and this sameness is sprinkled by patterns of difference which are explored through the choice of picking up different flowers (picking up different nurturing styles).

During the first part of the game, the intactness of the family unit is communicated through the sheep form, while in the second part, a transformation of the child happens. This transformation is based on Claudia's symbolic distinction between the realm of the living and the dead as distinction between livestock (sheep) and predator territory (tigers). In this metaphor,

which resonated with the remaining women as well, physical difference stands for separation. To underscore the difference between the sheep's meekness and the tiger's predatorily features, we settled on the mythological sheep/wolf binary. The intention was to communicate the opposite natures of life and death, and imply that the mother's yearning for the child was a yearning for something dangerous and transformative. At the same time, the baby wolf keeps the "customised" fur throughout the transformation. To the mother's gaze on the other side of the river, the wolf continues to be the beloved baby, irrespective of the altered shape.

Apart from the dichotomy of sheep and wolves, we used *age markers,* one of the devices described in previous chapters. Inspired by *Shelter,* we turned the lamb into a miniature version of the mother, hopping to catch up with their mother. Like the badgers' delightful waddling, we wanted these movements to have a charming effect, to be perceived as cute by the players. Observing that the size difference between lamb and mother effectively communicates who is in charge and who is nurtured, we positioned the lamb as worthy of the mother's/player's unconditional protection.

The size difference responds to Petra's "Tamagotchi" comparison, in which she identifies the baby as someone who needs to be nurtured without the expectation to look after itself. This is why we decided to leave the baby small throughout the entire bonding phase. In an earlier build, we had experimented with a growth effect as a consequence of feeding. In some cases, this meant that the baby outgrew the mother, challenging the meaning of vulnerability and cuteness. We decided that it was enough to represent the parenting effects through the introduction of colour on the lamb fur and the changing soundscape.

Gender markers were deliberately excluded for two reasons. First, none of the women had mentioned gender in their models, implicitly or explicitly. If anything, dominant gender assumptions were at work in the way they described their "mothering" role as nurturing and caring (Kaplan 1992). As we see in Shelter, representing such activities in a video game is enough to establish a consensus among players that they engage in "mothering", rather than "fathering", or "uncleing". While nurturing activities are enough to spur

readings along dominant ideas of "mothering", this reading is not enforced by gender markers who narrow down the dominant meaning. This is a second reason to refrain from explicit gendering; the possibility to invite alternative appropriations from a fatherly, sibling, or friends' perspective. While players have the ability to meaningfully engage with characters who do not share their demographic profiles (Shaw 2013), leaving the adult sheep's identity up for negotiation can invite a multiplicity of contextual player meanings.

Aural representation

The act of listening, as opposed to watching or acting, requires attention to environmental subtleties, which we thought appropriate for modelling the women's focus on being in the moment and paying attention to the baby. This is why music plays a central role in *Jocoi*'s gameplay. Even before the player presses a mouse button, simply wiping the mouse over a flower triggers an animation and a music track. The player can listen to this track as long as necessary to decide whether to move away or "commit" to it by pressing the left mouse button. When the flower is fed, we hear two things; a "being fed" jingle akin to the arpeggio sound in Shelter, and the flower's music track, which continues playing until we either feed a patch of grass, or a differently coloured flower of the same pattern.

This means that we used the *synaesthetic device,* defining sound as a stand-in for the instinctual bond between mother and child, and the quality of parenting choices. These parenting choices have a rational and an emotional component. On the one hand, the mother sheep goes out and compares sounds of flowers in order to select the most appropriate one. On the other hand, the selection of a flower is based on a deeply personal understanding of what can count as appropriate. While it is a matter of responsibility to engage in the act of nurturing, it is a matter of taste to settle on a particular flower.

As the flower symbol bar on the top of the screen fills up, this subjective emotional space of appropriate parenting choices becomes richer in sound, too. We intended for this richness to have a personal meaning for the players, and the mechanic of composing a soundtrack to be clear enough to make players remember their compositions after separation from the lamb. This turned out

more challenging than expected; few players could distinguish different sound layers or memorised the sound of a flower after they had included them in "their" soundtrack.

This impacted the overall understanding of the second part of the game, which is based on the player's recollection of previously encountered sounds as well. In keeping with the aural as a symbol for the emotional, we created a sound-based puzzle in which the player re-collects the combination of flowers last heard before the lamb's disappearance. When facing the river, players can hear this composition. They then have to go back to the meadow and identify flowers matching the sounds they just heard by means of grazing off the patches of grass covering them. This means that a sound puzzle has to be achieved blindly: The sheep mother does not see the one she misses, but she can make an effort remembering them by listening to shared memories and engaging (eating) with them.

And then there was an earthquake: Separation

At a random point during this bonding phase, the screen starts shaking, we hear the sound of a thunder rolling, and the screen fades to black. This is the moment of an unexplained loss, a moment which was not addressed by the women in detail, suggesting that reasons for their pregnancy loss matter less than its impact. As a metaphor for loss, the earthquake stays ambiguous while clearly communicating a cesura. Players have not seen such a moment before; the black-out breaks with the idyllic, monotonous "being there", and the growling sound replaces the music players composed before.

One message we wanted to avoid by randomising the earthquake moment was to blame the player for "failing" as a parent. This is the case in *Shelter*, where permadeath frames loss as failure of mothering. A more appropriate example for where we wanted to go is Passage, where death is defined as condition of life, as condition of the gameplay system. However, the space equals time logic in Passage allows an anticipation of death. We wanted to introduce death as aspect of the game system rather than a scripted moment, while on the level of player experience this moment should come out of the blue. Furthermore,

players should have had enough time to “bond”, and be engaged in collecting flowers and adjusting their soundtracks, or pursuing self-imposed goals. This is why the time of earthquake was based on two facts: The time since staring the level, and the amount of flowers that had been fed. If at a random moment inside a time window at least three flowers had been fed, the earthquake was introduced.

fig. 3.8: *Jocoi* iteration 1; bonding phase and FPR view

Testing the first prototype showed that this often led to a situation in which feeding a flower often triggered an earthquake, leading to an undesired cause-effect narrative. Some players believed that they had accidentally poisoned the child by feeding a toxic flower, retroactively reading the colourful dots and stripes on the lamb’s fur as sign of illness. This led them to think they were incompetent parents, expediting a reading we had hoped to avoid. In the next iteration we worked on discouraging a causal connection between nurturing and loss, by defining that loss can never happen directly after a feeding event.

Additionally, we changed colour scheme and patterns on the sheep to become less flashy and therefore less poisonous.

The First-Person River

When the game fades back in, we see the mother sheep and the flock in the weather state we have seen them before, but the music layers, flower symbol bar, and the lamb are gone. Additionally, we see a river in the right corner of the screen, which can be entered with both mouse button. The intention here is that the loss of the lamb also brings new opportunities: looking over the river and admiring the lamb, which has now transformed into a wolf cub, and as mentioned, wears the lamb's old fur colours. On this screen, the player views the other side of the river from first person. This First Person River (FPR) view as we called it was supposed to communicate the immersion of the sheep mother when watching her child. On the other side of the river, the wolf cub, and an adult wolf - the great-grandmother in Claudia's model - sit around a campfire. We see a cave in the background, which might be their burrow, and from time to time, the wolves stretch their legs, or howl.

Furthermore, the moment the player enters the FPR, they hear the last melody before the earthquake, and the symbol bar reappears. Instead of the full flower symbol, only the outlines are coloured. We thereby indicate that the feeling of attachment to the child is no longer the "full" experience, but has become a memory. However, when mousing over the flower symbols, their music is still audible. This is relevant for solving the music puzzle to follow.

Some seconds after they entered the FPR scene, the player sees an arrow symbol, the game's only visual prompt suggesting the player to go back, to leave the scene. This arrow symbolises the common sense voice indicating that in order to live on with the loss, the sheep must leave the FPR and focus on her own life. However, one can resist this voice and instead stay focused on the lamb by holding the left mouse button pressed on it. In this case, the camera moves forward, imitating the sheep's walking movements, and slowly, the screen blacks out. A prompt appears: "Let go". In Claudia's model, this is the moment when the sheep crosses the river with an uncertain outcome. If the player lets go of the mouse button, the camera zooms back, and the sheep is

pulled back to the side of the living. If the player resist again, they have committed to the other side, and the credits roll.

Re-Collections

After the player has revisited this memory by looking across the river, they find themselves back on a meadow sprinkled with patches of grass. These patches of grass cover the flowers which spawn on the meadow and stand for the now unavailable "happy moments" with the lamb. Using the right mouse button, the sheep mother can eat off a layer of grass, uncovering colour, and later, the shape of a flower. This activity stands for facing the loss, and making oneself vulnerable by peeling off “protective” layers of memories. The act of eating is at once a symbol for processing (“stomaching”) and unpacking themes of the past. That this is a tedious process is expressed by the two layers of grass, requiring repetition to uncover and eat a flower. One also takes a risk by confronting the loss. If one eats a flower which has not been included in the soundtrack, the sheep is overwhelmed by sadness and the puzzle resets. This can be prevented by listening carefully, and picking flowers only if one is sure the melody matches one heard in the FPR scene. Anytime during the puzzle, players can go back to the FPR to listen to the soundtrack and mouse over the symbol bar to listen to individual sounds. Back on the meadow they can also listen to flowers even if they are covered by grass.

Re-collecting the correct flowers might require asking for the flock’s support. Interaction with the flock works as usual, which has been experienced as callous by some players: The flock seems to be ignorant about the fact that a loss has just happened. Instead of reacting to the mother’s helpless calls, they continue living their lives as though nothing had happened, and are only available if explicitly asked for support. On the other hand they never refuse giving help, either. Like on the planets, the women take centre stage, while they are embedded in a family and friend collective.

Once the players have re-collected the three or four flower sounds that were active when they last saw the lamb, the forest gives way to a path leading the flock to a new meadows. While the flock marches off, the screen fades white and the game ends. Although this is an open ending - we don’t know whether they

will just move up the river and maintain a connection to the wolf cub on the other side, or wither they leave it behind - it still invokes the grief work paradigm (i.e. Lindemann 1944), the idea that overcoming is possible through a set of tasks that must be carried out successfully. As I have discussed in previous chapters, this view on grief is potentially disenfranchising and pathologising, since it assumes a more or less successful way of grieving. However, as Wambach 1985 has described, some grievers find the idea of closure empowering, such as Petra, who talks about tasks which must be completed to leave the planet behind. Although the women agreed that engagement with their dead child was an infinite task, they also reported that solving a hard puzzle to manage the first intense grief resonated with their experience.

3.4. ON THE QUESTION OF IMPACT: EVALUATING *JOCOI*

This chapter focuses on the project evaluation and and outcomes, discussing how and whether the project goals were met, and what development and evaluation suggest about designing games for the grieving. The chapter is built up in three parts, each of which addresses a step within the iterative development process.

The first prototype was tested for main usability and user experience. In terms of usability, did the players understand mechanics and control scheme? Did they understand consequences and impacts of their actions? Were they able to navigate, and solve the game? These questions were about functionality, whether "players can use the controls and make the game progress" (Fullerton 2008: 270). Secondly, in terms of UX design we wanted to test whether a sense of mother-child bonding was communicated, and whether the loss experience was conveyed. Additionally to observing players' responses through the talk-out-loud protocol, we also encouraged them to share arising associations and feelings freely as they played the game.

Based on this player feedback, a second iteration of *Jocoi* was developed, which was part of a probe package the women received to evaluate their involvement in the project. As a method carried out mid-term, the probe package was intended to provide inspiration for the refinement of user experience. Although functionality remained a concern, we focused more on the question how the women related the game to their own experiences. This intent was expressed in the design of the memory booklet drawing together narratives of the mother-child bond, reflections on the muse workshop, and first impressions of the game.

More broadly, we used probes as a method to inspire a deeper connection between development team and participants, in order to make appropriate adjustments to the prototype. A second intention was to provide a gift for the women which they would like to keep after the project ended. By addressing three moments in our handling of cultural probes - design, distribution, and returns, I will illustrate what worked and what did not work. The intention is

that this will shed some light on the advantages and disadvantages of cultural probes in grief-based game design.

The third prototype was evaluated through a group discussion with the women. Since it was the final prototype, the discussion focus was on potential uses of games like *Jocoi* from the perspectives of the bereaved. It was notable that even though the game was far from "feature complete" or smoothly balanced, the women consistently reported that *Jocoi* managed to accurately capture some of their emotional struggles. This was the case even though central elements in *Jocoi*'s symbolic landscape - the river, and the wolf cub on the other side - were interpreted in different ways.

Iteration 1: Understanding Emotion

When we started out evaluating the first prototype of *Jocoi*, we had two questions: How well does the game communicate what needs to be done to play, and how well does it create the experience of loss and grief? The difference between these interests can be understood as difference between usability and user experience testing; the former focused on efficiency and functionality of tasks, the latter on the quality of experience (Bargas-Avila/Hornbæk 2011).

One usability concern was whether or not the navigation of the sheep, and the option to nurture the lamb were intuitive. At that point, Jocoi came with a keyboard-based control scheme. To move the sheep, the arrow keys were pressed. When the mother sheep approached a flower, the letters "G" and "F" appeared on the screen, indicating that a flower could either be grazed or fed (to the lamb). Prior to playtesting, we had assumed that players would understand these letters as prompts for interaction. This was only the case for play testers who also identified as "gamers", while testers closer to our intended player audience were puzzled by these controls.

A possible explanation for this difference is that we inadvertently tapped the convention of Quick Time Events (QTE), in which a visual prompt needs to be matched by the corresponding button on the controller. Console game literate audiences understood these prompts as invitation to act, while non-players read

them as (however confusing) part of the landscape. Rather than a neutral, this initially showed that *functionality* was caught up in social contexts of use.

The question "Do *Jocoi*'s controls work?" is necessarily tied up in the question "Who do they work for?". In order to accommodate our audience of non-gamers, we decided to overhaul the control scheme completely. We assumed that the mouse as a piece of hardware pervasive in households and office contexts (Reed 2016) to be a more approachable, less alienating game controller. This suspicion was affirmed by a female play tester who, when seated in front of the computer, and asked to play the game inspected the hardware and looked as though something was missing. Then she asked for the mouse.

A second insight gained from usability testing was that the role of sound was insufficiently understood to solve the puzzle. As a response we emphasised visual design in two ways. First, mouse-based interaction made it possible to hover over a flower before clicking on it. This, we expected, would emphasise picking a flower as an aural choice, and strengthen the impression of building up a soundtrack. Secondly, we added the HUD element of the flower bar, providing additional visible feedback whenever the sheep fed a flower.

The status of usability, and the prominent game moments in which players got stuck, lost orientation, or interest, was inferred from observations: When playing the game, did users ask back, or try to solve puzzles by themselves? Did they wait for "something more" to happen, or did they feel free to explore and experiment? One important observation was how long players would try to play the game, and whether the game provided enough direction to encourage players to try things out rather than to remain stagnant and uncertain.
The question whether *Jocoi* appropriately communicates loss and grief experience, took us back to Boehner et al's (2007) interactional paradigm of emotion. Against the "laboratory-science tradition of studying emotion", the authors suggest that emotion is better treated "as a social and cultural product experienced through our interactions" (Boehner et al 2007: 276). The authors concede that this does not only have ethical consequences, moving the focus from helping computers make sense of human experience towards helping humans understand their own experience, using computers. It also changes the

role of the designer from absent engineer towards involved person, and calls for new evaluation methods which account for the fluid nature of emotion emerging between designers and users.

While understandable in theory, the application of this paradigm raised some concern among the design team. It questioned an established idea that experience design equalled control over a particular experience outcome. Rather than quantifiable items on a quantifiable scale, players' emotions emerged during conversations during or after play. Rather than a monolithic "target emotion", there was a network of associations changing with each player's unique situation.

We noticed that some players were more self-aware, imaginative or articulate than others when it came to associations. Some players kept focusing on rules and mechanics and speculated about possible goals and causalities. Others took a role-playing approach and identified as mother, uttering exclaims like "Where is my lamb? Oh god, my lamb is gone". Yet other players compared gameplay and character behaviours to personal experiences. One player reported that the flock reminded them of their passive family members offering little support during a time when she faced a traumatic separation from a childhood friend. In fact, in the first prototype, the flock was not part of gameplay yet. While the sheep mother/player struggled for survival, and actively roamed the meadow, the flock just stayed in the background, and post-loss continued to idly move back and forth as if nothing had happened. Players' association helped us work on the flock as supportive family system in line with the women's description. While in later prototypes of *Jocoi*, the mother-child connection is still more in the centre than the family system, the family's role was changed from absent to available.

Overall, what we learned from testing iteration 1 was the value of conversational and associative feedback, engaged through conversation rather than quantification. Both, measuring functionality and emotional impact were better explored by looking at players' reflections about the game, rather than measuring whether the game system had "produced" the right emotion.

Iteration 2: Cultural Probes

With the second iteration of *Jocoi*, we addressed the women, using the method of cultural probe packages. Cultural probes, as described in the method sections, are activity packs with ephemeral value for the design process (Gaver et al 1999, Khaled 2012, Lange-Nielsen et al 2012). In our case, they served as inspirational method halfway throughout the development process, continuing (rather than initiating) dialogue with the muses, and gaining further insight into their lives. The process of designing appropriate probes conjured up the question of what would be appropriate, requiring empathy, and the courage to "get personal" as researcher. Secondly, managing distribution and return of the probes was instructive about the pragmatic side of probes as method. Thirdly, I will discuss the role of inspiration when it comes to making sense of the returned probes.

Design

When designing the probe package, the concern was twofold: The muses' reflections on the provided materials should both teach us something we did not know yet, and be an appropriate farewell gift after the project had ended. We settled on a package including three objects, a scrapbook, a postcard, and a USB stick containing iteration 2 of *Jocoi*.

The most elaborate object was the scrapbook, since it included handwritten questions and tasks focusing on the muses' lives, their participation in the workshop, and their impression of the game. Leaving personal traces of the researcher - both in the form of black-ink handwriting, and small decorations - was important. It was supposed to update the notion of dialogue, making the book resemble a family or friendship album more than a questionnaire.

The booklet contained three sections: "Your Baby & You", in which they could share their story, objects, songs, and rituals around their mother-child connection, and their expectations from others. The second section addressed their workshop participation, asking for memorable moments, and things they liked and didn't like about collaboration. There was also a section on their planet models, including the question whether would add another material to the planet now, and what this would stand for. The idea here was that the

models crafted during the workshop were situational, and something might have changed over time. To answer this question, the probe package contained a button and five pieces of fabric - shiny, smooth but thin aluminium foil, a white handkerchief, a cotton cloth, a soft and a rough sponge, as well as a button. The idea was that looking at, touching, and then choosing one of these materials was a way of engaging with what was appropriate now for the muses.

Apart from the book, each probe package contained a postcard saying "note to the developers". The intention with it was to invite a terse response by the muses, tapping their "connotations as informal, friendly mode of communication" (Gaver et al 1999). Furthermore, we included a USB stick which contained iteration 2 of *Jocoi*, and which was supposed to be played together after the women had opened their packages and explained the contents to them. This was supposed to clarify not only whether the women liked the game, but also whether they could play it on their own devices in their homes.

These items were wrapped in a coloured cushion envelope, which was supposed to be handed over and explained to the participants. The idea was that after clarifying initial questions, we would move on to playtest the game on the women's devices, record their responses, and take the results back to the development team. Other probe returns should be reviewed later, some time before semester project end.

Launching the probes

In their Presence Project study, Gaver et al (1999) describe the decision to present and explain the probes personally as "extremely fortunate", because it spurred some discussion, and allowed the designers to gain a first glimpse into whether this unconventional method was accepted. Our intention was to launch the probes as a way to reinitiate contact after a month-long pause, and use this opportunity for playtesting. This plan was complicated when two muses had to cancel, had the probe package mailed to their homes instead, and were asked to play the game individually via the supplied USB stick. The other participants received personal instructions, and displayed positive surprise over the materials. Attempts to start the game on their personal computers failed,

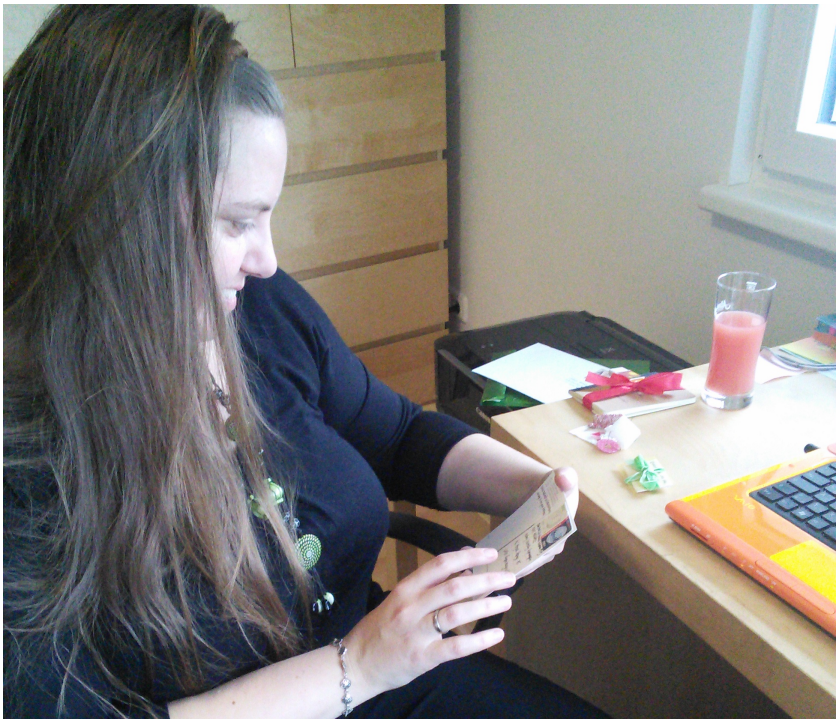

fig. 3.9: Claudia opening her cultural probe package

however, and a different device had to be used. The game worked, but not on the hardware it was supposed to work.

Soon after, the muses who couldn't join the probe launch reported technical issues as well. This situation impacted the women's answers in the scrapbook: For those who couldn't play the game because they hadn't attended the meeting, an entire section of the book could not be used. Furthermore, the inability to play the game also reflected on a low postcard return: What was there to say to the developers, if the game could not be opened? This highlighted a problem with our probe design, namely that the materials and questions were tool mutually dependent. Instead of evoking separate inspirational responses, the materials cross-referenced each other, and while the look and feel of the package was attractive to the women, many of the tasks included in the book could not be solved independently of the game prototype. In retrospect, it would have been more desirable to divide the probes into smaller portions, making the scrapbook less important than it was.

Returns

On the other hand, the importance of the scrapbooks was reflected both in the rich reflections the women included in it, and the fact that all of them were returned. The section "My Baby & Me" featured intimate narratives, some of them directly addressed their babies ("this was the time you left us"). This indicates that the book was a welcome medium to once again update the mother-child connection, and cultivate inner representations of their babies. In all four books, responses to the section "How it all started: space for your shared experience" filled several pages. The workshop section of the book received a similarly strong resonance. Overall, the women remembered the atmosphere as respectful, and they positively remarked on the possibility to be close to their babies. One muse explicitly mentioned the planet as an appropriate metaphor to explore the topic of loss in a creative way.

All but one women responded to the task "add a new material to your planet and explain what it stands for". This tasks claims that neither the mother-child relationship, nor grief as experience, nor the mother's interpretation of it, can be assumed to be stable, and might therefore require an expressive "update". As Claudia put it, "grief changes over time", and there is a diversity of grief "across people and within a person from one time to another" (Rosenblatt 2012: 83). That the women did not reject the task as impossible, but were willing to reflect their planet through new materials indicates that symbolic models are situationally, rather than universally appropriate. While the development team used the planets as inspirational surface, they were in fact snapshots of an emotional "world in progress".

One thing that was reconfirmed with the return of the probes was the mothers' ongoing concern with finding a positive space for their deceased children. The detail to which they described their own stories, and the register they chose to do so, spoke of the warmth and affection which we also wanted to communicate in the appearance, sound, and feel of *Jocoi*. In keeping with what Gaver et al. (1999) describe, we experienced probes as a method subtly inspiring rather than directing design. We responded by making the landscape even more fantastical, adding snowflakes, bubbles and butterfly particles corresponding to the seasons. Another change that was made was the inclusion of a tutorial

which explained all basic actions through black and white prompts. This had been an explicit wish by the women emerging during our play session.

Iteration 3: The Purpose of Ambiguity

After development had ended, the women were invited again for a review workshop. This time, the purpose of evaluation was to discuss the women's personal responses to the game, and share ideas about *Jocoi*'s potential purpose for grievers. Methodically speaking, we used a structured group discussion format divided into three parts. Following an introductory part reviewing the workshop and design process, the women played the prototype in silence and responded to five impulse questions in written form. Finally, each question was engaged in a discussion, which was aimed at identifying potential purposes and contexts of play.

In order to refresh their memory, the women were shown photos from their work, and the four planet models. It was remarkable that while recollecting details from each models, the women showed no interest in attributing them to a particular author. For instance, the sheep's conundrum - whether to cross the river and be with her young or to stay with the flock - was remembered, but it was no longer important who created it. The image had become part of a shared memory owned by the group. This highlights the ephemeral nature of symbolic modelling. During the workshop, the muses had identified as authors and artists owning their images. Some months later, this personal identification was no longer important; the muses had moved on with their lives, leaving their creations as part of a shared creative effort in the past. While the models back then had expressed salient aspects of the women's emotional lives, they had changed their significance. The women had changed, and so had their attitudes to images expressed in the past.

Moving on to playtesting, the women were instructed to play *Jocoi* without talking and note their spontaneous response to the game on five coloured posters. These posters contained short evocative questions and prompts, which were supposed to start a discussion on potential contexts and purposes of playing *Jocoi*. With the instruction to play in silence and react in written form, we intended to provoke genuine responses, avoid distraction from others'

opinions, and ensure that the ideas spawned from play were as diverse as possible. This was equivalent to the crafting phase during the workshop, when the women turned their attention inwards before they engaged them in group think.

The five prompting phrases were“Your impulse”, “What remains?”, “Why? For whom?”, “What does it trigger?” and “What do you feel like doing now?” The item “Your impulse” provoked attention to usability, and the question how to improve gameplay and include elements that were missing. The women consistently asked for clearer instructions. One idea was to include a flavour story creating suspense in the beginning and carrying the players through the first part of the game. Some participants reported they wouldn’t have the patience to wait for the earthquake without an initial hint that something was going to change the mother-child idyll. At the same time they put into consideration that boredom was an important building block for the experience of loss.. The women recognised elements like seasonal change, eating, and the fact that actions take long and are sometimes tedious, as a an appropriate aspect of nurturing. Associations to everyday life and its mundane processes were understood and embraced. Specifically drawing on the question of grief and its reflection in game world Gudrun found *Jocoi*’s proposition “appropriate for the mourning process. This mundane on the one hand, that you find things again you shared with the child, and on the other hand also that you do what you have to do every day”.

The question “What does it trigger?” evoked responses to the game’s different phases and the emotions inspired in the women. The mothers had no difficulties projecting their own mother-child relationship to the first part of the game. Yearning (Sehnsucht) was mentioned as strong emotion during the first scene. The scene made them miss their babies, and the harmony they had wished for experiencing with it. This was also why two of the women felt like playing the game again. After the earthquake, there was a wish to experience the connection to the lamb again, while after the loss they reported feelings of helplessness and “chaos”.Another motive to play the game again was to discover part of the world they had not experienced before.Most surprisingly, the women had different ideas about the meaning of the wolf cub across the river. Opinions exactly diverged between interpretations of the baby wolf as a perpetrator

having captured and devoured the lamb, and the intended meaning of the lamb's transformation. At the same time, both groups of women said that the game adequately portrayed their relationships to their dead children, and the kind of loss experience they went through.

The questions "For whom?" and "What remains?" initiated discussion about *Jocoi*'s potential uses and meanings. One concern was whether the symbolism was too esoteric to be understood by players outside of the group. This conjures up a more general question related to metaphorical game design: How to deal with the necessary ambiguity of symbolic images? In a reflection on their metaphorical game series *For the Records,* Rusch and Rana (2014) contend:

> While metaphors are powerful tools to communicate otherwise incommunicable concepts, they are not always easily understood. They might be the only way to represent what is going on "inside", but that does not mean that they do not require further explanation. One of our biggest challenges was and still is to find the right balance between staying true to the metaphors that arose from our conversations with people with lived experience and presenting these metaphors in a form that others can grasp them. There is evocative power in a subjective and artistic piece, but there is also the risk of it not being understood (Rusch/Rana 2014: 362).

In their anti-anxiety game *Soteria*, the authors resolve this tension between artistic subjectivity and the need to be understood by adding quotes and voice overs. One game even includes a "what it means" page, which explains the intended meaning of metaphorical aspects and clarifies what the interactions with different game elements stand for (ibid).

A different approach to the problem of understanding is advocated in Gaver et al. (2003) who argue that ambiguity can be experienced as "intriguing, mysterious, and delightful. By impelling people to interpret situations for themselves, it encourages them to start grappling conceptually with systems and their contexts, and thus to establish deeper and more personal relations

with the meanings offered by those systems" (2003: 233). Similarly, Sengers and Gaver (2006) have argued that staying open for interpretation, and embracing a potential divergence between designer and user meanings can be valuable for both. After all, "[n]o single one of these perspectives may necessarily be "correct;" instead, all may be useful in highlighting aspects of how systems will be understood, be used, and find roles in individual's and community's lives" (Sengers/Gaver 2006: 3).

This suggests that dealing with uncertainty is an active part of sense-making, and therefore part of the empathetic dialogue we wanted to initiate with *Jocoi*. Rather than stable, the meanings of the women planets had always been in flux. Although they had used concrete materials and narratives to express themselves in the muse workshop, the resulting emotional landscapes had evoked different interpretations in other muses. During the discussion phase of the muse workshop, a priority had been to give space to these reactions, and to cultivate sense-making both towards collective and individual meanings.

Narrowing down the game in terms of a single "correct" interpretation seemed counterintuitive to this process. At the moment the game was experienced by a players, they were implied in this dialogue, as part of a struggle for meaning. One use of *Jocoi*, as the women saw it, was as a self-help tool in bereavement groups like *Regenbogen*. This was yet another reason for ambiguity and against closure: Rather than explaining loss and grief to the grievers, *Jocoi*'s uncertain symbolic world offers a canvas for projection, accommodating a variety of child loss experiences. We had started from the women's personal models of their pregnancy loss, moved through a game designerly interpretation of it, and in the end, it should be up to the new personal context of the players to continue the dialogue.

Epilogue

Although *Jocoi* was intended as a reflective design piece, a "thing to think with" (Sengers et al. 2004) rather than a polished product with a concrete use, the question "what remains?" continued to be important long after the project. Months after the evaluation workshop, *Regenbogen* asked for the game to be presented at their annual networking meetings as part of the self-help group's

grieving activities. Rather than a mere "research subject", this indicated that the women had perceived their role in the *Trauerspiel* workshop as *owners* and *authors* of a creative process. That *Jocoi*'s technical flaws were still unresolved did not stop them from requesting it as "corpus delicti" of their participation. This suggests that there was a sense of identification, a sense of pride, and a wish to share their involvement in the previously alienating process of game making. The photo album I discovered by coincidence when idly roaming *Regenbogen*'s information table was a point in case. Documenting the self-help group's activities in 2014, the album contained a section called *Unser Trauerspiel* ("our mourning game"). This section displayed two photographs from the project, carefully arranged and glued on thick, dark blue paper. One of them showed a still from the game, the other one showed two of the muses looking over my shoulder while I was setting up the game (fig. 3.10). I would like to argue that this album is itself a reflective object, a "thing to think with", informing our view on the women's participation in two ways.

First, it is worthwhile considering the composition of the album page in fig. 3.10. The two images reflect two aspects of the project, the product (screenshot) and the process (below). What seems to be missing are images from the planet models, emphasising that the red thread of the composition is the theme of *game*. This theme is repeated by the in-game material of the screenshot, the central position of the computer in the bottom picture, and the description "Unser Trauer*spiel*". The pronoun "our" in "unser Trauerspiel" suggests identification: Had *game* become something that could be owned, instead of being alienating? Zooming further into the two photos, we find inconsistent answers. First, the screenshot displays a lamb clothed in bright colours, faced by her mother. In order to produce this image, the player had to spend some time in the game. However, instead of a moment from the later "Trauer" stage, when the lamb is gone, they chose a bonding moment, repeating the priority of "being together" set in the workshop.

The choice for the bottom picture is unknown, but it is clear that it has not been part of my project documentation, and I was not aware this photo had been taken. No matter why this photo was chosen, it was considered appropriate to be included in the *Regenbogen* album, and for this reason is worth a closer look. In the picture, I am sitting, about to set up *Jocoi* while explaining

something to the two women looking over my shoulder with intense interest. While we share the collective object of interest - the computer, *Jocoi* - there is also something that divides us, expressed through different postures, and levels of control over the computer. I am seated and my hands are connected to the computer keyboard, while the women stand and merely participate as bystanders. Moreover, they listen while I talk. Overall, this constructs a divide between savvy "expert" and attentive "apprentice", novice computer users. Moments later, the constellation would have changed, when I stepped aside and let the women play. It is possible that no photo was taken from that later constellation, but incidentally or not, the chosen image frames the muses as only partially involved, and as visitors, rather than owners of technology.

This takes us to the second way in which the photo album can inform the meaning of the women's participation. As paper-based object, the photo album is both an archival technology of the past centuries, and considered appropriate in the present to give physical space to the women's inner representations of their children. Documenting the women's ongoing "parent-child activities", the thick, high quality paper reflects something about the value of these activities to the women. By being included in this album, the *Trauerspiel* workshop becomes one of the many memorial activities considered important to give space to the dead child. At the same time, the inclusion of workshop memories into the album requires a transformation from digital to analog, from moving to static. The effort required to turn *Jocoi* into a high gloss physical representation indicates the women's wish to present their participation in the project on par with other memorable mother-child activities, and to frame their contribution to the project primarily as their own experience in the past. Importantly, the women did not ask for other modes of documentation, such as putting *Jocoi* on *Regenbogen*'s website. This might be different in a possible future where blogs and online forums have take over the archival role physical photography continues to play for *Regenbogen*'s bereaved parents.

4. MAKING SPACE FOR GRIEF: CONCLUSIVE THOUGHTS

In this study I have used a multidisciplinary lens to investigate the expressive possibilities of video games when it comes to representing grief-related experiences.

I first conducted five analyses of single player games and their portrayal of attachment, loss and grief in inter-character relationships. The analyses were conceptually rooted in the idea that games exist on an ergodic continuum (Newman 2002), involving players in interreactive ways (Smethurst 2015), and inviting metaphorical projection (Rusch 2017). The goal was both to learn from the nuanced ways games have portrayed psychodynamics of bonding, separation and grief in the past, and to critique limitations and absences when doing so.

Applying findings from analysis, the practical game design part mobilised pregnancy loss as lived grief context. Using muse-based design (Khaled 2012), it raised the question how underrepresented grief narratives can be included into game design. Four Austrian bereaved mothers were invited to inspire the ideation of the game *Jocoi*. They participated in the metaphorical modelling workshop *Trauerspiel,* for which I adapted strategies from expressive art therapy (Potash/ Ho 2014, Levine 2014) and personal game design (Rusch 2017) to the needs of the participants.

Harking back into the question how video games can make space for grief, I would like to review my findings along three areas of impact, three symbolic spaces which outline the contributions of this study. The first space, which I call game space, addresses opportunities for grief-related representation using game-specific means as suggested in this study. Secondly, there is the emotional space of players who invest effort into making sense of games through emotional projection. This space can be consciously addressed when making games about attachment, loss and grief. Thirdly, design space addresses game design as a way of opening spaces for collaboration, spaces in which designers and grievers can interact. One finding of this study is that interaction through game design cannot only inspire game design ideation, but it offers a possibility for intimate conversations and mutual validation for grievers.

Game space

First, this study has contributed to a formal understanding of video games as expressive media, and the way the ergodic spectrum can be used to create emotionally charged game spaces. When it comes to formulating nuanced dynamics of attachment, loss and grief, game designers can model game spaces to show players why they should care, and hence, what it is precisely they lose when a character is removed from a game. During analysis, I have identified attachment devices for five dimensions of game design; rules, controls, space between bodies, visual and aural design.

I have suggested that on the level of rules, game design can encourage different motives for attachment, such as dependency and synergy. One example is *Shelter*'s construction of a dependent group of badger kits counting on their mother's care. Losing a badger due to a mistake affects players differently than the loss of an eye level character like Aeris. Her absence in *FFVII* comes with the loss of a strategic advantage. When designing *Jocoi*, we adapted the rule devices in response to the women's imaginations of the mother-child bond as something that can be fostered through feeding and caring. Unlike *Shelter*, where the young are in constant peril, the mothers imagined the bond as something timeless, adding value to life. This is why *Jocoi* combines dependency and synergy aspects: The mother sheep needs to feed the lamb, but only in order to enrich her own world by adding colour and sound.

Attachment quality can also be sculpted through the design of space between bodies. While rules regulate what bonding rituals are possible, they come to life in inter-character space. *Ico*, for instance, uses an *elastic bond* between player character and NPC to communicate precarious intimacy. In *Shelter*, on the other hand, mother-child intimacy is presented as something intuitive by using an *invisible bond* which regulates that the kits follow their mother. In the design of *Jocoi, Shelter*'s invisible bond was used, too, since the quality of a natural mother-child connection resonated with the mothers' ideas of staying connected with the deceased. Unlike the automatic spatial connection between mother and child, contact with the "family collective" of the flock must be actively initiated by clicking on them. This emphasises the special intimacy of mother and child.

The design of control schemes can do much to anchor a character's presence, or characterise their desire for another character. The *tandem controls* in *Brothers* create a safe space in which two characters cultivate a wholesome relationship. When one character is removed, the player has resources to draw on this relationship and commemorate it. A more precarious yearning for the other is constructed through *Ico*'s *call/response* device, which only focuses on one side of the relationship, the perspective of the yearner. In *Jocoi,* we adapt the scheme for the mouse-based feed/be fed controls. During the first part of the game, they condition the player to expect an endless care giving loop. When the lamb is lost in the second part, the care button is lost as well, producing the gameplay deprivation effect learned from *Ico*.

I have discussed how games can use non-ergodic elements to characterise the social and emotional quality of a bond through visual and aural cues. For instance, gender markers encourage readings of romantic relationships (*FFVII*, *Ico*, *Passage*), or facilitate same-gender bonding (*Brothers*). The way characters appear has consequences for how players participate in the game and what narratives they will feel invited to project. In *Jocoi* we used age markers to refer to the mother-child bond, putting weight on the cuteness of the lamb character. Furthermore, the simple art style reflects the women's colourful "grief planets". When it comes to the role of sound in *Jocoi*, we used listening as part of the player's intuitive care taking activities. Listening to a flower's sound before it is fed, signifies paying attention. In the first part, it stands for the careful selection of appropriate nourishment for the baby. After separation it mediates recollection, and the pondering of what remains after loss.

One argument I made in this study is that game space can be used expressively to respond to situational affordances of lived grief experience. I have showed this in my adaptation of the design devices in response to the bereaved women's tastes. For future game design, this suggests that different, currently untapped grief experiences can be addressed as well, using a similar method.

A selection of five games is hardly sufficient to capture the expressive capacity of video games comprehensively. Rather than claiming that the design devices discussed in this thesis are all games can to represent grief, they demonstrate the variety of strategies that have been used so far. However, this study has intended

to start rather to end the quest for grief representation devices. One obvious place to continue text-based research would be in single-player games which feature more complex character constellations, or by focusing on the avatar-player relationship, as done by Smethurst (2015). Other interesting territories would be multi-player spaces, and virtual worlds, both of which offer rich possibilities for negotiating death and bereavement (Gibbs et al. 2012).

Emotional space

Game spaces cannot impose the meanings they construct, yet I have shown evidence that players use emotional projection to both bond with important characters, and find creative coping strategies when these characters die. Examples are the *resurrection hack* and the *ghost glitch* in *FFVII,* as well as *Shelter* players' narratives of guilt and trauma shared online. These examples demonstrate the link between design devices and players' emotional projections while they participate in the interreactive circuit of play. By engaging in emotional projection they actively make sense of games in a way that matches their unique personal contexts.

The personal nature of emotional projection was demonstrated in the participants' responses to *Jocoi*. The women disagreed on the meaning of *Jocoi*'s symbolism, attributing different qualities to characters, events, and the overall play experience. Some read the baby wolf across the river as predator; others saw it as a transformed lamb. However, there was an agreement that *Jocoi* represented their feelings appropriately, indicating that they identified with the game.

I have argued that this confirms the importance of ambiguity as design resource Gaver, et al. (2003). *Jocoi*'s ambiguous game space allowed the women to perform appropriate projections that resonated with their own context. The different readings of the lamb/wolf symbolism demonstrate that in order to be impactful and personally meaningful to players, gameplay narratives do not necessarily have to be explained. In fact, doing so would have undermined personal readings which, as designers, we could not predict when designing the game, even when including the women's hand-crafted models.

This suggests that emotional spaces are in flux rather than containing solid truths about grief-related feelings. While we used the women's symbolic expressions as source for inspiration, the women themselves did not display any strong sense of attachment to their metaphors. These images, which had emerged as their most intimate representations of the mother-child bonds during the workshop had become distant memories at the end of the project. This indicates that the women had moved on from one emotional space to another one throughout development. They remembered details, but had forgotten about their authors. Rather than reliable and eternally true, these images were fleeting glimpses into their worlds, which are worlds in constant change. As Claudia put it: "The river changed. Grief changes."

If grief changes not only inter- but intra-personally, design must make space for this flexibility, inviting rather than constraining interpretation. The challenge is that bmbiguous design strategies make the designer more vulnerable, because they can no longer pretend to fix the final meaning of their game. The point is to open a game space in which grievers can experience their emotional projections, and this happens beyond the designer's control. Rather than a disadvantage, however, *Jocoi*'s reception suggests that ambiguity was a feature of respect for idiosyncratic grief narratives. The women already knew how to feel about love and loss; we did not have to educate them through a game. Instead of telling them what to feel, ambiguous elements like the baby wolf made space for their situational projections.

Design space

The aim of the case study was to open an experimental space in which a dialogue between grievers and designers could be initiated. Including grievers into game design from an early stage (Khaled 2012) required providing a space which would take their needs and fear seriously. Dealing with the taboo experience of pregnancy loss, the women both came with the wish to make this experience more speakable. They also came with a deep alienation from video game culture. Creating clear roles through the muse-based design scheme (ibid.) helped frame their contribution as inspirational input without the pressure to deliver a "game".

In hindsight, the women's participation as design partners and play testers was equally important than the "product" of the final game. Through their cultural

probe (Gaver et al. 1999) sketchbooks, they reported that they experienced the workshop as comforting safe space, and considered the exercises appropriate to engage their stories. This indicates the relevance of game design as method for an art therapeutic context, because it can facilitating validation through introspective crafting or poiesis (Levine 2014), and receiving attention by empathetic listeners (Thompson 2003).

The development team started in the role of such active listeners, engaging with the evocative planet models in an attempt to formulate a respectful response. This process came with two benefits for the design team. First, the recurrent wish for "timelessness" and "goallessness" challenged established ideas about video games and inspired unorthodox thinking.

Secondly, engaging with grievers' emotional landscapes meant to make a gift for someone whose tastes had previously off the radar for video game designers. This came with small surprises for the design team, such as the fact that the women enjoyed sharing stories about their children, and imagined their grief worlds in colourful ways. The planet models are a far shot from the dominant conception (reproduced in *Shelter*) that bereavement is the end of care.

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APPENDIX

Zusammenfassung

Die Dissertation befasst sich mit der Frage, wie digitale Darstellungsmechanismen in Videospielen mit menschlicher Erfahrung, speziell mit persönlicher Trauer- und Verlusterfahrung umgehen können. Die Arbeit verbindet textanalytische mit angewandten, partizipativen Game Designmethoden, um kontemporäre Darstellungsmodalitäten von Verlust und Trauer in Videospielen umfassend zu verstehen.

Die einleitenden Grundlagenkapitel verankern dieses Vorhaben einerseits im Begriff der Repräsentation, welcher als epistemologische Schnittstelle zwischen Videospieldiskurs und gelebter Trauer mobilisiert wird. Weiters wird mit einem historischen Abriss des Trauerbegriffs im Westlichen Psychologiediskurs erläutert, warum diese Arbeit mit einem konstruktivistischen Trauer- und Verlustbegriff arbeitet.

In den folgenden Analysenkapiteln werden fünf Spiele diskutiert, die jeweils ein zentrales Verlust-Moment aufweisen, und in Bezug auf ihre Gemeinsamkeiten und Verschiedenheiten hinsichtlich ludischer Darstellungsmechanismen untersucht werden. Was dies letztendlich für einen designzentrierten Umgang mit Verlusterfahrungen bedeuten kann, wird anschließend anhand einer konkreten Fallstudie diskutiert. Die Schlusskapitel beleuchten Konzeption, Design und Evaluierung des im Zuge eines Aufenthalts an der Aalborg Universität Kopenhagen gestalteten Videospiels *Jocoi*, für die eine Informantinnengruppe trauernder Mütter als Erfahrungsexpertinnen herangezogen wurde.

Die Arbeit oszilliert somit zwischen medienanalytischen und pragmatisch-gestalterischen Zugängen, um den Erfahrungskomplex Bindung, Verlust und Trauer in Videospielen holistisch zu beleuchten.

Abstract

This doctoral thesis investigates game design as an expressive modality to represent attachment, loss and grief. While loss as the opposite of winning is ubiquitous in video games, the complex human experience of grief has been little explored by game designers. This thesis looks at the new field of grief-based game design through a multidisciplinary lens, using textual analysis, a participatory design study focused on pregnancy loss, and a constructionist focus on grief as creative process of meaning reconstruction.

The analysis part performs close readings of five games which have featured inter-character bonding and loss. The analysis goals are, first, to identify design devices which are used to inform grief-based game design in the case study, and secondly, to critique the limitations of grief-related representations in video games of the past.

The participatory design study investigates how game design can accommodate pregnancy loss, a woman-centric domain which has been relatively absent from games. Aims of the case study are threefold. The first one is to study how UX design can handle early involvement of grievers' perspectives through the *Trauerspiel* informant workshop in Vienna. Secondly, it is to study empathic design as a back and forth between designers and grievers. To do so, muse-based design (Khaled 2014) and metaphorical game design were used to make the game *Jocoi* with a student team at Aalborg University Copenhagen. Finally, the impact of *Jocoi* as resource for grievers is investigated. Using the inspirational method of cultural probes, informants' responses to the game were evaluated.

SABINE HARRER

MMag.a, Bakk.a

*01/09 1984

Löwengasse 2/4
1030 Wien
enibolas@gmail.com
enibolas.com

Sabine is a cultural researcher, writer, and member of the Copenhagen Game Collective. Her work combines cultural studies and an applied designerly lens. It includes approaches to loss and grief, sexuality, gender and colonialism in videogames. She has been a PhD fellow at the Austrian Academy of Sciences, taught courses in games and cultural studies at IT University Copenhagen, and has held workshops on intimate game design at DePaul University Chicago, the Lyst summit, Amaze festival Berlin, and the ITU Copenhagen.

WORK EXPERIENCE

PhD candidate (English studies/TU Wien. Thesis: “Representing Loss and Grief in Videogames” - Uni Wien and Austrian Academy of Sciences, 2011-
Research Assistant - IT-University Copenhagen, 2013-2014
University Lecturer - English Department Uni Wien, 2011-2013
Student Assistant - English Department Uni Wien, 2009-2011
Student Tutor - Publizistik Uni Wien, 2008-2009

EDUCATION

Mag.a (Communication studies) - Uni Wien, 2012
Mag.a (English studies. Thesis: “Good Hair and Bad Hair in the construction of black women’s identities”) - Uni Wien, 2011
Bakk.a (Communication studies) - Uni Wien, 2008
Reifeprüfung - BORG for students of Music Wien, 2004

TEACHING & FACILITATION

Game Culture - IT University Copenhagen (interactive course), 2013-2016
Casual Colonialism - Royal University Copenhagen (guest lecture), 2016
Qualitative Methods - IT University Copenhagen (interactive course), 2014
Metaphorical Design - IT University Copenhagen (design workshop), 2013
Perspectives on Games - English Department Uni Wien (interactive course), 2013
Making Deep Games - DePaul University Chicago (design workshop), 2012
Approaching Cultural Studies - English Department Uni Wien (full lecture), 2012-13
YouTube-WeThink* - English Department Uni Wien (interactive course), 2012
Cultural studies als sozio-kulturelle Technik - PHOÖ Linz (workshop), 2012
Tutorium (Publizistik Wien) - Uni Wien (interactive course), 2008-2009

AWARDS & SCHOLARSHIPS

ÖAW Doc Fellowship - Austrian Academy of Sciences, 2013-2016
KWA Mobility Grant (DK) - Uni Wien, 2014
Förderstipendium + KWA (USA) - Uni Wien, 2012
*BA Preis für innovative Lehre (Hauptpreis) - Wien, 2012
ERASMUS student exchange scholarship (NL) - University Amsterdam, 2007-2008

PUBLICATIONS

"Casual Empire: Videogames as neocolonialist praxis" (forthcoming)
"Black Skin, White Guns: Becoming The Coloniser in Resident Evil 5", Philosophy of Computer Games Conference, Berlin 2015
"Inviting Grief Into Games: The Game Design Process as Personal Dialogue", Proceedings of the DIGRA Conference, Lüneburg 2015
"Cunt Touch This: A Conversation on Intimate Design and Embarrassment", Proceedings of the CHI Conference, Seoul 2015
"Games Against Health: A Player-Centered Philosophy", CHI Conference Proceedings, Seoul 2015
"From Losing To Loss: Exploring the Expressive Capacities of Videogames Beyond Death as Failure", *Culture Unbound* 5(35).
"Game Design for Cultural Studies. An experiential approach to critical thinking", Games Learning & Society (GLS) conference, June 2011, Madison/USA
"The LARA-Formula. Textual ambiguity and commercial success", FROG Conference, September 2010, Vienna/AUT

SPEAKING ENGAGEMENTS (selection)

Designing for Grief - Game Developers Conference San Francisco/USA, 2017
Therapy in Games - Games Learning & Society Conference Madison/USA, 2016
Black Skin - White Guns: Becoming Colonizer in Resident Evil 5 - Philosophy of Computer Games Conference Berlin/GER, 2015
Inviting Grief Into Games - DIGRA Conference Lüneburg/GER, 2015
Games Against Success - Central European Games Conference Vienna/AUT, 2015
From Loss and Grief to Game Design - CHI Conference Toronto/CAN, 2014
Dis-playing Loss - FROG Conference Vienna/AUT, 2013
Performing Race in Patapon, [CON]ference 2.0, Brno/CZ 2012
Game Design for Cultural Studies - Games Learning & Society Conference Madison/USA, 2011
The LARA-Formula - FROG Conference Vienna/AUT, 2010

WORKS

Lovebirds (wearables, performance), 2014
Cunt Touch This (tablet colouring app), 2014
Jocoi (Windows/OSX), 2015
PrayPrayAbsolution (wearables, arduino), 2015
Get Your Rocks On (fingers on rocks), 2016