Mechanisms of the Soul – Tackling the Human Condition in Videogames

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ABSTRACT
Focusing on games' specific affective[i], procedural and metaphorical[ii] potential, this paper is going to explore three devices for the purposeful design of games that tackle the human condition. Device I "Fictional Alignment" matches game structures to fictional themes in order to expand games' emotional palette through leveraging the affective strength of game emotions and shaping their meaning through fictional contextualization. Device II, "Procedurality", discusses the potential and limits of procedural expression to enhance our understanding of the mechanisms inherent to the human condition. Device III, "Experiential Metaphor", investigates the metaphorical potential of game aesthetics and how it can help to make abstract experiences such as emotional processes and mental states emotionally tangible.
Since these devices are based on characteristics that coexist in games, they are not mutually exclusive. However, discussing them separately should facilitate their deliberate use.

Author Keywords
Game design, human condition, experiential gestalt, emotion, procedural expression, metaphors

INTRODUCTION
As a game scholar / designer with a humanistic background, I am very drawn towards computergames which address the human condition. While I understand the human condition as encompassing all of human experience as well as the conditions "under which life on earth has been given to man" [Arendt 1998] my focus here is specifically on the less graspable, abstract aspects of this experience – the mechanisms of our very souls and how they shape our believes, behaviors and relationships towards the world around us.
As observed by Raph Koster, few games currently enhance our understanding of ourselves.

> Games thus far have not really worked to extend our understanding of ourselves. Instead, games have primarily been an arena where human behavior – often in its crudest, most primitive form – is put on display. There is a crucial difference between games portraying the human condition and the human condition merely existing within games. The latter is interesting in an academic sense, but it is unsurprising. The human condition manifests anywhere. We may come to better (sic) understanding of ourselves by examining our *relationship* to games, as this book attempts to do, but for games to really step up to the plate, they need to provide us with insights into ourselves. [Koster 2005]

Although I basically agree with that statement, I also see some need for clarification about what we mean when we ask games to
"step up to the plate". While the desire for more meaningful gameplay seems to be shared by a growing number of players, game scholars and designers, their ideas on what this entails and how it could be achieved are very diverse. [iii]
Before we can purposefully design games that provide insight into the human experience, it seems appropriate to investigate at least some basic ways in which they relate to it. What makes games potentially powerful tools to teach us something about ourselves, and how can we tap that potential? The following investigations are exploratory rather than exhaustive, drawing on observations from existing games, relevant scholarly discourse as well as my own design work, and intend to take a first stab at the problem instead of aiming at a final solution.

In this paper I am going to explore three characterstics of games – their specific affective nature, their procedurality and their metaphorical potential – and how they can be harnessed in conjunction with fiction or by themselves to design experiences that are revelatory of the human condition. I deliberately focus on those aspects of games that Jesper Juul has described as "real" in contrast to their fictional component:

> Video games are *real* in that they consist of real rules with which players actually interact, and in that winning or losing a game is a real event. However, when winning a game by slaying a

> dragon, the dragon is not a real dragon but a fictional one. To play a video game is therefore to interact with real rules while imagining a fictional world, and a video game is a set of rules as well as a fictional world. [Juul 2005]

This is not to suggest that I deem fiction unimportant for the design of games that provide insight into the human condition. Far from it – fiction probably provides the most obvious link to human experience in games, simply because the existence of characters and a gameworld creates the expectation that the game makes some sort of statement about life. I will argue, however, that games' primary power to teach us something about ourselves resides in their "game-ness" and that we need to leverage that in order to create revelatory experiences that account for the particularity of the medium. [Jenkins 2004]

The three design devices I am going to sketch out shall foster a more differentiated perspective on the various ways in which games can "step up to the plate" and the range of expressive tools at our disposal. Hopefully it will provoke further research and experimentation and facilitate purposeful design.

DEVICE I: FICTIONAL ALIGNMENT

One very direct way in which games relate to the human experience is through their affective impact. Playing games elicits emotions. When Steven Spielberg made his famous claim that games would have reached maturity as storytelling media when "somebody confesses that they cried at level 17", he was addressing the limited range of emotions games currently provide [Breznican 2004]. His claim further implied that the way to expand games' small emotional range was by way of their fictional component. The characters and narrative events should elicit tears, not the real-world activity of e.g. losing hours of gameplay because one forgot to save, or the frustration caused by a really, really hard part in the game. After all, empathy for the hero or heroine has been cinema's main way of enhancing our understanding of ourselves. Indeed, grasping the intricacies of a complex situation emotionally can greatly enrich our appreciation of the human condition. But obviously, what has worked in traditional media does not work the same way in games. [Grodal 2000]. Why?

A game that has a fictional component evokes "represented world emotions", as well as the medium-specific "game emotions." Jonathan Frome explains:

> Represented-world emotions are simply those that are generated by the world represented in the artwork, including the characters, situations and narrative events. This category includes most ordinary responses to popular films and books, such as happiness that Rocky Balboa wins the heavyweight title in *Rocky II* (1979), frustration with Rorschach's unyielding Manichaean morality in the graphic novel *Watchmen* (DC Comics, 1987), or concern for the minimum-wage workers profiled in *Nickel and Dimed* (Enrenreich, 2001). (…)
>
> Game emotions are emotions of competition; the emotions generated due to winning, losing, accomplishment, and frustration. [2006]

While the range of game emotions might be smaller than the potential range of represented world emotions, their reality-status is higher. After all, game emotions are based on real-world activities (playing the game) and real events (e.g. winning or losing), while represented-world emotions result from hybrid-illusion.

> [Hybrid-illusion theory] states that only certain parts of our minds react to artworks as if they are real. We know globally that artworks are representations, but many of the mental subsystems that contribute to that overall evaluation do not distinguish between reality and representation. When a representation stimulates the mind in ways that are similar to how reality stimulates the mind, those subsystems react as if they are engaged with reality. When more features of the prototype emotion situation are recreated by the artwork and more subsystems are activated, the potential for emotional response increases. [Frome 2006]

According to Frijda's Law of Apparent Reality, "emotions are evoked exclusively by events that are appraised as real and their intensity corresponds to the degree to which this is the case." [Tan 1996]. Consequently, the game emotions elicited by the real-world activity of playing the game are more salient during the moment-to-moment gameplay than the represented world emotions, which have a comparatively lower reality-status. Playing the game makes one focus on its goals, rules and mechanics, potentially overruling the emotional impact of the fictional elements [King/Krzywinska 2006, Rusch/Koenig 2007]. This is such a common phenomenon that early game discourse declared the relationship between game and fiction as principally arbitrary [Juul 1999, Aarseth 2004] (a position that has been revised in the meantime [Juul 2005, Koster 2005, King / Krzywinska 2006]).

From this follows that while it is seductive to turn to the fiction as a way to expand games' emotional palette, one should be aware that the fictional component by itself cannot perform such a trick. It further suggests that the "real" part of the game is the primary vehicle for the game's affective impact.

So, how to approach the design of games that teach us something about ourselves through affect? If game and fiction are well aligned, they can harness each other's

potential. Instead of trying to mix narration and gameplay – an undertaking Espen Aarseth compared to the mixing of oil and water [2004] – the game can carry the fiction, while the fiction adjusts the course of where the journey is going. The game-part brings in the affective strength of the real-world activity and the fiction contextualizes those game emotions and enables players to attribute them to the events in the gameworld. Thus e.g. gameplay tension can be turned into claustrophobia (*Indigo Prophecy*), paranoia (*Silent Hill*) or even caring (*Ico*).
More generally speaking, aligning game and fiction means leveraging everything that is real about a game to get its fictional component across – the player's genuine relation to the game as game, the real-world activity of playing including the things one needs to do in order to win, the overlapping of game constraints and fictional constraints (e.g. setting a game in a prison which is a strongly regulated environment), the mapping of the player's goals and motivations with the avatar's goals and motivations etc.

What can this mean in practice? Let's look at a game that tackles the human condition by matching rules and fiction to expand its affective range:

Of Gods, Designers and Satisfaction

God of War II, much like its prequel *God of War,* is an action-adventure game for the PS2. The main reason I have chosen it for analysis in this paper is that the first 60 minutes of the game managed to elicit a wider range of emotions in me than most other games I have ever played. No, I did not cry, but the continuum of frustration and triumph that usually defines the affective range of single player action games was enriched by the experience of arrogance, shame, humiliation, betrayal and the wish for revenge. Game and fiction are aligned in a way that makes Kratos' emotional state tangible to the player, leaving both the player and her character yearning for satisfaction at the end of the overture.

In the beginning of the game Kratos, aka Spirit of Sparta, aka God of War, refuses to abide by Athena and plunges from Olympus into battle to lend his Spartan army a helping hand in the defeat of Rhodes. Zeus, fed up with Kratos' ceaseless warefare and general disobedience, sets up a trap to teach the impertinent arriviste a lesson. At first, everything is swell. Kratos and I are in serious "butt kicking" mode and overpowered as he initially is, I soon share the God of War's arrogance, slaying hordes of enemies with ease, developing pride and confidence in my capabilities, not to speak of the immense pleasure the incredibly smooth animations provide with which he responds to me frantic button mashing. Pride comes before the fall and before long Zeus' trap snaps shut and things start going south. By infusing some of Kratos' power into the Colossus of Rhodes Zeus had created a powerful enemy that could not be defeated without the Blade of Olympus, which he slyly offers to Kratos. But to use the Blade, the God of War had to pour his godly powers into it, becoming vulnerable and mortal. With the weapon it is indeed possible to defeat the Colossus. Kratos and I share a moment of unspoiled triumph (Kratos, his back to the Colossus, even taunts the Gods!) before the Spirit of Sparta is crushed in a cut scene by the hand of the falling Boss. Embarrassing! The designers / the Gods have just reminded me / Kratos that I / he will only get as big as they allow me / him to become. Still in the cut-scene, the severely wounded Kratos is struggling to get up on all fours, spitting blood. His armor peels from him, revealing vulnerable skin. When the cut-scene is over, I make my way towards the Blade of Olympus which has been sent flying and landed several feet away on the platform. Moving Kratos, the once so formidable vehicle of pleasure, is now awkward and frustrating. While my input stays the same, he just slowly drags himself towards the weapon. The Spartan army watches our struggle in disbelief. I feel angry and humiliated. Now comes the final phase of Zeus' ingenious set-up. Before Kratos / I have a chance to reach the sword, Zeus shows up and in a cut-scene lightly picks up the Blade. He holds it against Kratos' throat, making him an offer that is hard to refuse: either the Spirit of Sparta swears obedience to Zeus and regains his godly powers, or he is going to kill him. Still in the cut-scene Kratos pushes the sword away. I regain control, but despite all my anger, the following fight is pathetic and inevitably ends with Zeus spearing Kratos with the Blade. The next cut-scene shows how the fallen God is dragged into Hades but rescued by the Titan Gaia, mother of earth (*deus ex machina* takes on a very literal meaning in this game!). It fits her plans that Kratos goes after Zeus. She heals his belly wound and sends him back, but he is still mortal and relatively weak. The game does a terrific job at hooking me on power (just as Kratos is hooked on it) so that when it is taken away, its loss is keenly felt. Defeated and humiliated, my frustration easily translates into anger towards Zeus. The betrayal and the knowledge of what has been snatched away fuel my wish to beat the game just as they fuel Kratos' wish for revenge on the father of Olympus. We are longing for satisfaction. Leveling up now has a clear purpose and luckily the process of doing so is in itself satisfying. With fierce determination we fight our way out of Hades.

It is the alignment of the Gods and the designers as the controlling entities to whom player and avatar submit to reach their goals (i.e. continued engaging gameplay / defeating Zeus) that makes the struggle against the game personal. The game is the opponent, and while you think you are playing it, it is in fact playing you. In *GoWII* there is a direct link between how the player relates to the game and how Kratos relates to the Gods. This enables the game to evoke emotions normally associated with interpresonal relationships – e.g. trust, betrayal, shame, and loyalty.

More generally speaking, how the player relates to a game as such – its structural elements – provides the foundation for the player's affective response towards game events and

her emotional relationship towards game objects, including NPCs (e.g. if princess Yorda were not important to win the game *Ico*, the game would not evoke emotions of caring and responsibility towards her, or at least to a far lesser degree). To model experiences in games that are insightful of the human condition, we have to understand how people tick, what personal goals they have and how those goals shape their relationship to the world around them in terms of conflicts, dependencies, sources of pleasure etc. The connections between personal goals and emotional response to events cannot be emphasized enough [Minsky 2006, Jarvinen 2008]. Expanding the affective range of games thus includes crafting interesting player relations to the gameworld. *GoWII* is an excellent example for a game that makes the avatar's attitude towards the world tangible to the player. How much deeper insights could be gained from a game that make the player experience life from the point of view of a pathologically shy person, an altruist, or someone wracked with jealousy? What are the goals and conflicts that come with a variety of socio-psychological predispositions and how can we make them tangible to the player? While games thus far bridged the gap between player and avatar by bringing the avatar closer to the player (e.g. amnesia as in *Silent Hill II*, being in training mode as in *Half-Life*, growing up as in *Zelda,* or the avatar as blank slate as in *Myst*), I suggest the reverse approach: creating avatars with strong independent socio-psychological predispositions, and then trying to bridge the gap to the player by bringing the player closer to the avatar.

Device II: PROCEDURALITY

Let's look at an interesting example to get the discussion started of how the procedural quality of games can provide insight into the human condition.

The Marriage

According to designer Rod Humble *The Marriage* is his expression of "how marriage feels". [Humble 2007] Its rules are derived from his personal experience and meant to make statements about it. Here is the rule summary as found on the game's website:

> Initially you have two squares a blue and a pink, on screen.
> Soon different coloured circles will enter and leave the play space.
> You have two controls.
>
> 1.) When you mouse over the blue or pink square the blue square reduces in size and both squares move towards each other.
> 2.) When you mouse over a circle it disappears and the pink square gets smaller.
>
> When the edge of the blue square collides (or "kisses") with the edge of the pink square (but not when they overlap): the blue square shrinks slightly and becomes more transparent. The pink square grows slightly and becomes less transparent.
> When the blue square touches any coloured circle but black then the blue square becomes less transparent and grows in size to a significant degree.
> When the pink square touches any coloured circle but black then the pink square grows in size slightly.
> When the pink or blue square touch a black circle they shrink significantly.
> As time passes the pink square becomes more transparent.
> When squares collide with things then a white bar at the bottom of the screen increases in size.
> When either the pink square of blue square shrink to nothing or become totally transparent then the game is over.
> The general game flow will be balancing the need to have the pink & blue squares "kiss" to insure the pink square does not fade from the marriage versus the blue square needing to touch the circles to insure it does not fade. [Humble 2007]

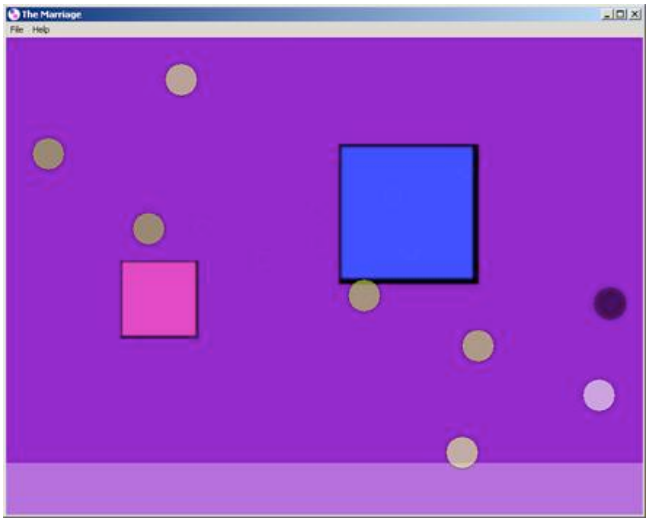

Figure I: Screenshot of *The Marriage*

The rules suggest a specific perspective on marriage and how it works: for one, partners have slightly different "needs" and both have to be satisfied for the relationship to work out. The game is hard, suggesting that keeping a

marriage going is not a trivial task. It takes several attempts to figure out what to do, which is still no guarantee that one always does the right thing. The rules further make a statement that equality of partners is important to have a mutually beneficial relationship. If one square gets too big, kissing edge to edge becomes impossible, the other square fades and *The Marriage* fails. The game does not leave the option to lead an unhappy relationship. This implies an emotional rather than formal perspective on marriage. The Marriage can theoretically still exist on paper, but what counts is the personal commitment.

The Marriage illustrates how games can foster reflection and understanding about *how things work*. "Games model not only principles but processes, particularly the dynamics of complex systems." [Holland / Jenkins / Squire 2003].

> Because computers function procedurally, they are particularly adept at representing real or imagined systems that themselves function in some particular way – that is, that operate according to a set of processes. The computer magnifies the ability to create representations of processes. [Bogost 2007]

Thus, another way in which games can enhance our understanding of the human condition is by representing the processes inherent to it. Of course, this representation is subjective and implies authorial intent as in: a designer makes sense of her experiences and identifies the processes and rules they follow. She then models the game system in correspondence to these observations, using the rules to express her specific take on things.[iv] This can create exhilerating "meetings of mind" between designer and player or make one see the world from a different perspective. But only, if the player understands what the game is about. [Frasca 2001].

When I first played *The Marriage*, however, I was lost. I was unaware of the title, since a friend had just sat me in front of the computer and said "play this, you will find that interesting." This gave me a clue that the game probably had a message (my friends know me) but for the life of me, I did not understand it. The graphical surface did not provide much in the way of interpretative cues, and neither did the things I had to do – mousing over squares and circles. Knowing the title changed my experience quite a bit and suddenly the game made much more sense to me. Not "getting it" robbed me of the insights *The Marriage* had to offer. The rules were there, but I was simply unable to connect them to the source system they were making statements about.

This illustrates that the power of procedural expression to teach us something about the human condition hinges on cognitive comprehension of what the game is about and what its various elements stand for. Of course, the game can be profound for players regardless of whether they get its specific message or not, but these aha!-moments cannot be attributed to the statements and arguments made by the game rules but the players' own creativity.

I am not mentioning this because I think *The Marriage* has failed. I am bringing it up because it points to the limits of procedural expression in regard to making games that offer insight into the human condition. Gaining a deeper understanding of ourselves predominantly means pondering abstract concepts such as love, loyalty, dignity, justice, truth etc. In contrast to physical concepts, the elements of abstract concepts cannot be directly observed and delineated from physical reality – e.g. there is no way you can look at an emotional state the way you can look at e.g. a machine and investigate its parts and how they relate to each other. To make abstract ideas tangible we have to rely on metaphors [Johnson / Lakoff 1980]. "The essence of metaphor is understanding and experiencing one kind of thing in terms of another." [1980]. Metaphors make abstract ideas tangible by providing a physical (perceptible) visualization. Thus, the fictional representation of games that deal with abstract concepts might also be metaphorical hence obscuring what the game truly is about. In fact, metaphorical representation can itself be abstract (in a different sense of the word), e.g. a blue square as husband. An abstract shape can still make an abstract idea tangible, because it has physical properties (it can be seen, touched, moved) while the abstract idea does not. Nevertheless, to derive meaning from a metaphorical representation (abstract or not), we need to understand what it is a representation of. Rod Humble, who deliberatly chose an abstract graphical surface to visualize the idea of "relationship" seemed to have anticipated comprehension problems of the game, since he published an explanation of its meaning on its website [Humble 2007].

I want to suggest that one way to compensate for the opacity of a metaphorical fictional layer is leveraging the metaphorical quality of gameplay itself.

Device III: Experiential Metaphors

Games can evoke strong associations to experiences from real life along the lines of "oh my, this feels exactly like (insert appropriate experience here)!" I would like to introduce the term "experiential metaphor" for the phenomenon of understanding a gameplay experience as a physical visualisation of abstract ideas such as emotional processes or mental states. What the game feels like can provide an additional interpretative cue that helps game comprehension along (e.g. game feels like relationship, thus it might be about relationship).
The grappling hook sequences in *GoWII* that afford players to swing from pillar to pillar with the help of a grappling hook, provide a terrific example for an experiential metaphor.

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

Real life rarely offers the opportunity for comparable physical exercise, but the grappling hook pattern still resonated with me in a profound way. By affording the player to enact courage to let go of a safe but unsatisfying status quo in order to move on to a more promising state it evokes associations to a range of similarly structured experiences. The reluctance to let go, the 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.

I am not the only one who has these sorts of experiential associations when playing games. A famous example stems from Janet Murray when she describes *Tetris* as a

> perfect enactment of the overtasked 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. (…)
> Tetris allows us to symbolically experience agency over our lives. It is a kind of rain dance for the postmodern psyche, meant to allow us to enact control over things outside our power. [1998]

Neither the grappling hook example nor *Tetris* were probably intended to create these sorts of "experiential metaphors", but they provide evidence for their existence.

Let's have another look at *The Marriage.*

As I stated before, I was unable to associate my gameplay experience to the concept the game was based on. Only when I knew what the game was about did I see the connection. The game, although based on Humble's experience of marriage did not evoke the experience of being in a relationship. Of course, one could argue that relationships are very personal and if my idea of the concept does not match the designer's the experience the gameplay evokes will not remind me of my experience of relationships. The counterargument would be that once I knew what the game was about, I had no problem interpreting and comprehending the statements implied by the rules. This suggests that I was able to make the connection between game and concept on some level – the reflective, cognitive one – while not on the intuitive, emotional one. This does not mean that the game did not ring true emotionally, but it only did once I had grasped it cognitively. I am not suggesting that emotion and intellect can be separated and follow Marvin Minsky who speaks of both as different ways to think [2006]. What I want to stress, however, is that the game's aesthetic, the immediate emotional response evoked by interacting with the game system was not aligned with the experience the game claimed to be based on [LeBlanc / Hunicke / Zubek 2001]. While the game mechanics, the things I did in the grappling hook example, created an experience that paralleled that of the real-life experience of tansition, the mechanics of *The Marriage* – mousing over squares to make them move towards each other and mousing over circles to make them disappear – did not parallel in any way the experience of being in a relationship. If they had, I probably would have caught on to the game's meaning more easily.

Understanding what creates the discrepancy between the cognitive and immediate emotional comprehension of a game's concept is crucial for purposeful game design and includes gaining a clearer idea on how we generally make sense of our experiences. According to Johnson and Lakoff, we understand and structure our experiences in terms of *experiential gestalts*. An experiential gestalt consists of a variety of salient structural elements that characterize the specific experience.

> Thus we classify particular experiences in terms of experiential gestalts in our conceptual system. Here we must distinguish between: (1) the experience itself, as we structure it, and (2) the concepts that we employ in structuring it, that is the multidimensional gestalts like CONVERSATION and ARGUMENT. (…) It is by means of conceptualizing our experiences in this manner that we pick out the "important" aspects of an experience. And by picking out what is "important" in the experience, we can categorize the experience, understand it, and remember it [1980].

The experiential gestalt of the grappling hook episodes from *GoWII* fits my concept of other moments of transition.[v] Thus I can understand swinging from pillar to pillar as an experiential metaphor for e.g. job-hopping. *The Marriage* does not actually model the experience of being in a relationship, but depicts from an outsider's view the

reflection process about its mechanisms. Its aesthetic experience is based on observation (how are the partners doing?), reflection (what do I need to do to keep them in play?) and the rather indirect way in which one can balance the system (influencing outside factors and causing partners to slowly float towards each other). These structural elements do not really correspond to a clearly recognizable and distinguishable experiential gestalt at all. Thus it is hard to understand what the game is about on this experiential level. That *The Marriage* can still be understood on the cognitive level is due to the fact that one cannot depict the reflection process of a system without also somehow modeling the system itself. The experience of reflecting upon the mechanisms of marriage and poking its parameters allows an understanding of these parameters by implication.

To tap the potential of experiential metaphors to foster game comprehension one needs to be aware that one message ("what?") can be delivered in the form of different aesthetic experiences ("how?"). Procedural expression is based on a designer's perspective on how a source system works and her capability to identify rules that capture this perspective. However, these rules are not necessarily identical with the game rules.

> Rules specify *limitations* and *affordances*. They prohibit players from performing actions such as making jewelry out of dice, but they also add meaning to the allowed actions and this *affords* players meaningful actions that were not otherwise available; rules give games *structure*. (…) the video game needs rules that let the characters move as well as rules that prevent the character from reaching the goal immediately. [Juul 2005]

The aesthetic experience of the game depends on game rules. Very often the claims about complex concepts take the form of general statements (rules of a higher abstraction level) that can inform different sets of concrete game rules depending on the role that is assigned to the player in the game system. E.g. the argument that a relationship only works when the different needs of both partners are equally satisfied is derived from a designer's individual take on the source system "relationship" but it does not yet specify what the player can or cannot do in the game. Changing the player's perspective (e.g. from one of the partners to the force of love between them) changes what the player does, which changes the experience of the game while not necessarily changing its core argument. The path I choose to climb a mountain does not change the mountain, only my perception of it.

The conceptual ambiguities between Device II and III are due to the fact that procedural expression and experiential metaphors are not two principally different strategies; they just emphasize two different aspects of how game rules can provide insight into the human condition. Procedural expression focuses on making statements about abstract concepts that potentially enhance our understanding of ourselves by way of cognitive comprehension and reflection. These statements do not necessarily go hand in hand with an aesthetic experience that supports them on the immediate emotional level. Designing for both, cognitive as well as emotional comprehension requires a deliberate alignment of both aspects and a keen awareness of what exactly the game should model (which experiential gestalt).

Conclusion

This paper explored three ways in which games relate to the human condition and suggested three devices for the purposeful design of games that teach us something about ourselves. Device I "Fictional Alignment" focused on expanding the emotional palette of games by aligning game structure and fictional theme. That way the affective strength of game emotions would carry the fiction, while the context provided by the fiction would alter the meaning of game emotions. Device II "Procedurality" referred to games' potential to make statements about how things work by representing processes with processes. Procedural expression is a terrific tool to enhance our understanding of the social, mental and psychological processes that underlie our believes, behaviors and relationships towards the world around us. However, the power of procedural expression depends on a player's comprehension of the modeled system. If it is unclear what the game is about, e.g. because its graphical surface is obscure, the potential insights the rules convey are lost. While procedural expression focused on cognitive understanding of the processes portrayed in the game, Device III "Experiential Metaphor" addressed the immediate, emotional comprehension of processes through the game's aesthetics. Recognizing structural similarities between a gameplay experience and an experience from real life (e.g. this game feels like job hopping!) can help us understand the quality of these experiences and make sense of them. In combination, Device II and III can facilitate game comprehension. Since the interaction with a game's system is the source for both aesthetic experience (how does it feel?) and cognitive comprehension (how does it work?) "Procedurality" and "Experiential Metaphor" are not principally different strategies, they only focus on different aspects of how game rules relate to the human condition.

These three devices do not claim to exhaust the ways in which games can teach us something about ourselves. Neither are they mutually exclusive. Exploring them as distinct approaches, however, can help raise awareness about their particular strenghts and weaknesses, and facilitate their deliberate use. Knowing about one's options enables powerful combinations of devices instead of just focusing on one aspect and letting the others fall into place, risking that they disrupt the overall experience and undermine each other. A future paper will be dedicated to the analysis of such "unhappy accidents".

REFERENCES

1. Aarseth, E. "Genre Trouble: Narrativism and the Art of Simulation," in Wardrip-Fruin, Noah / Harrigan, Pat: *First Person. New Media as Story, Performance and Game*. The MIT Press, Cambridge MA, 2004, pp. 45-56

2. Arendt, H. *The Human Condition*. The University of Chicago Press, Chicago, IL, 1998, 2nd edition.

3. Breznican, A. *Spielberg, Zemeckis say video games, films could become one* (URL accessed March 2009) http://www.signonsandiego.com/news/features/20040915-1336-ca-games-spielberg-zemeckis.html

4. Frasca, G. Videogames of the Oppressed: Videogames as Means for Critical Thinking and Debate. MA Thesis conducted at Georgia Institute of Technology, USA, 2001. (URL accessed March 2009) http://www.ludology.org/articles/thesis/

5. Frome, J. "Reality, Representation, and Emotions Across Media," in *Film Studies: An International Review* 8/9, 2006.

6. Grodal, T. "Video Games and the Pleasures of Control," in Zillmann, D. and Vorderer, P. (eds.) *Media Entertainment. The Psychology of its Appeal.* Lawrence Erlbaum Associates, Mahwah NJ, 2000, pp.197-215.

7. *God of War II:* Sony 2007.

8. *Half-Life*: Valve 1998.

9. Holland, W., Jenkins, H. and Squire, K. "Theory by Design," in Wolf J.P.M and Perron, B. (eds.) *The Video Game Theory Reader.* Routledge, New York and London, 2003, pp.25-46.

10. Humble, R. *The Marriage* available at http://www.rodvik.com/rodgames/marriage.html

11. Humble, R. "Game Rules as Art" in *The Escapist* (URL accessedd Feb. 2009) http://www.escapistmagazine.com/articles/view/issues/issue_41/247-Game-Rules-as-Art

12. *Ico:* Sony 2001.

13. *Indigo Prophecy*: Quantic Dream 2005.

14. Jarvinen, A. *Games without Frontiers: Theories and Methods for Game Studies and Design*. Ph.D. Dissertation conducted at University of Tampere, Finland, 2008. (URL accessed Feb. 2009) http://acta.uta.fi/english/teos.php?id=11046

15. Jenkins, H. "Game Design as Narrative Architecture," in Wardrip-Fruin, N. and Harrigan, P. (eds.) *First Person: New Media as Story, Performance, and Game*. The MIT Press, Cambridge, MA, 2004, pp.118-130.

16. Juul, J. *A Clash Between Game and Narrative*. Master Thesis. IT University Copenhagen, Denmark, 1999. Available at http://www.jesperjuul.dk/thesis/ URL

17. Juul, J. *Half-Real*. MIT Press, Cambridge MA, 2005.

18. Juul, J. „A Certain Level of Abstraction," in *Situated Play: DiGRA 2007 Conference Proceedings*, edited by Akira Baba, Tokyo: DiGRA Japan, 2007, pp.510-515.

19. King, G. and Krzywinska, T. Tomb Raider and Space Invaders. Videogames Form & Contexts. I.B. Tauris, London UK, 2006.

20. Koster, R. *Theory of Fun*. Paraglyph Press, Scottsdale Arizone, 2005.

21. Lakoff, G. and Johnson, M. *Metaphors We Live By*. University of Chicago Press, London and Chicago, 1980.

22. Minsky, M. *The Emotion Machine*, Simon & Schuster Paperbacks, New York NY, 2006.

23. Murray, J. *Hamlet on the Holodeck*. The MIT Press, Cambridge, MA, 1998.

24. *Myst:* Cyan Worlds 1993.

25. Rusch, D.C. and König, N. "Barthes Revisited: Perspectives on Emotion Strategies in Computer Games," in *Computerphilology Yearbook*, TU Darmstadt, 2007, (URL accessed Feb. 2009) http://computerphilologie.tu-darmstadt.de/jg07/koenigrusch.html

26. *Silent Hill 2*: Konami 2001

27. Tan, Ed S. *Emotion and the Structure of Narrative Film. Film as an Emotion Engine*. Lawrence Erlbaum Associates, Mahwah, NJ, 1996.

28. *Tetris*: Alexey Pajitnov 1985.

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[i] The term "affective" is used here specifically to refer to the emotions the game evokes either through the gameplay alone or in conjunction with its fiction layer.

[ii] Games relate to metaphors in various ways. In this paper I focus specifically on "experiential metaphors", which refers

to the immediate, intuitive experiential associations to abstract (in the sense of physically intangible) concepts that arise out of the moment-to-moment interaction with game patterns.

[iii] Just to mention a few: Jason Rohrer, Rod Humble, Clint Hocking, Jonathan Blow, Raph Koster on the design side. There are further a wide variety of initiatives to make profound games, Mary Flanagan's "Values@Play" being a very good example, but also "games for change" comes to mind. Brenda Brathwaite, Ian Bogost, Gonzalo Frasca, Janet Murray and Michael Mateas also need to be pointed out as being at the forefront of visionaries who explore (from different perspectives) games' potential to capture the human experience.

[iv] Ian Bogost has introduced the term "procedural rhetoric" for the practice of making claims and statements about how things work rather than simply trying to depict them procedurally (which would merely be procedural experession). [Bogost 2007] Although tackling the human condition in games is hardly possible without procedural rhetoric's intentional stance, I am unsure about the aspect of persuasiveness that is the purpose of rhetoric. While a game that aims to demarcate practices of discrimination might want to hide its subjective viewpoint in order to convince players that "this is how it truly is", games that tackle the human condition can openly declare their subjective nature without compromising their potential insightfulness. Thus I am not using the term "procedural rhetoric" to describe the practices discussed under device II.

[v] Although subjective, this does not mean other people would not recognize the same experiential gestalt. Our experiences are individual but in most cases they are not completely unique. This is pretty obvious when watching romantic comedies at movie theaters and observing the audiences general increased use of tissues at certain points of the narrative.