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Games about LOVE and TRUST?
Harnessing the Power of Metaphors for Experience Design

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Abstract

In this paper we will tackle the question of how thinking about game design as metaphorical process can help game designers to systematically expand the experiential scope of videogames. Sharing Eric Zimmerman's and Katie Salen's frustration with the reality of the game store, the "endless racks of adolescent power fantasies, witless cartoon characters, and literal minded sports simulations." [2004], we set out to explore potential for future development of games that are *about* something, that tackle complex concepts and ideas in a medium-specific manner, thus providing players with thought-provoking, and insightful experiences.

Central to our investigations is digital games' natural affinity to metaphors. Metaphors can enter games in a variety of ways. In the following we are going to focus on two of them: interface metaphors that provide the very foundation for the communication between game and player, and games that are based as a whole on metaphorically structured abstract concepts such as LOVE or TRUST. Applying Lakoff's and Johnson's research on "metaphors we live by" [1980] to game studies, we will identify potential of future development and give suggestions of how it can be tapped. Qualitative analyses of existing game examples will round up our explorations of how harnessing the power of metaphors in game design can create rich and insightful game-play experiences.

Keywords

Game design, mediacy, abstraction, metaphors, meaning generation, abstract concepts, multidimensional gestalts

1. Introduction

There are a growing number of game designers, as well as players, who want games to be *about* something – games that matter and make us see the world from a different perspective.[1] Clint Hocking and Raph Koster claim that games can have the potential to move us profoundly and provide deep insights into the "human condition" [Hocking 2008a; Koster 2005]. It all depends on *what* experiences you set out to design and *how* you design them. The cut-scenes may claim that a game is really about a deep and complicated relationship between the heroine and her significant other while the actual game-play is all about

running, hiding, ducking, aiming, pulling the trigger and reloading; the *cut-scenes* might be about unconditional love but the *game* is about shooting. For a game to successfully convey its message it needs to be implemented within the rule system. It has to become tangible to the player in the moment-to-moment game-play. It must make use of the *medium-specific possibilities* to get the experience across, and strategies that worked well in traditional media may not work the same way in games.[2] As Henry Jenkins has noted in regard to their narrative potential: "we must (…) be attentive to the particularity of games as a medium, specifically what distinguishes them from other narrative traditions." [2004].

In 2007, we played and analyzed a range of single-player digital representational games – games that represent any kind of real or imagined world and that are played on some kind of computer, in contrast to highly abstract, non-narrative games – that seemed somehow unusual, thought-provoking and interesting to us in regard to their topic (*what?*) or the way they made use of the medium-specific possibilities of digital games, especially the process of mediation and abstraction, to convey it (*how?*). We selected a subset of games to examine by drawing on recommendations from friends and colleagues and our own extensive experience as active players. Our study is qualitative and we do not claim our findings to be quantitatively representative. We started by naïvely asking what kinds of experiences were offered most by current games and tried to identify blank spots that had potential for future development.

Heavily inspired by Lakoff's and Johnson's seminal book "Metaphors We Live By" [1980], which provided us with an enormously useful framework to systematize our explorations, we found that game-play experiences are rarely based on abstract concepts and ideas (e.g. HOPE, LOVE, SACRIFICE,

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[1] http://www.manifestogames.com, http://www.igf.com/, http://www.smartlab.uk.com/, http://www.tiltfactor.org/, http://www.seriousgames.org/index2.html, http://www.gameresearch.nl/

[2] An illuminating article in this regard is Grodal, Torben (2000): Video Games and the Pleasures of Control. In: Zillmann, Dolf and Vorderer, Peter (Eds.): *Media Entertainment. The Psychology of its Appeal*. (pp. 197-215). Mahwah NJ: Lawrence Erlbaum Associates. See also: Rusch, Doris C. (2008): Emotional Design of Computer Games and Fiction Films. In: Jahn-Sudmann, Andreas/Stockmann, Ralf (eds.): *Games Without Frontiers - War Without Tears. Computer Games as a Sociocultural Phenomenon*. New York: Palgrave.

TRUST, JUSTICE[3] etc.) but tended to emphasize a limited number of straightforward physical concepts that afforded an apparent immediacy of interaction with the game-world (e.g. running, grabbing, fighting). This suggested two paths for future development:

1. Exploring abstract concepts as the basis for game ideas and
2. Opening up the range of physical concepts employed in games by downplaying the primacy of apparent immediacy of interaction with the game-world.

Each of these paths requires us to think of game design as metaphorical process. Firstly, abstract concepts are often understood in terms of metaphors [Lakoff /Johnson, p.85]. Secondly, due to the mediated nature of digital games, communication between game and player relies heavily on interface metaphors. We will elaborate on this special relationship between digital games and metaphors and provide concrete game examples to illustrate how it can be harnessed to systematically expand the experiential scope of this still evolving, but powerful expressive form.

2. Metaphors are everywhere

People are often under the misconception that metaphors are something fancy, that they belong exclusively to the realm of art and literature. This is not true. Metaphors are everywhere. They structure our everyday experiences and build the foundation for our understanding of the world. According to Lakoff and Johnson "the essence of metaphor is understanding and experiencing one kind of thing in terms of another." [1980, p.5]. When we make sense of our experiences we constantly understand one kind of thing in terms of another kind of thing. Especially abstract concepts or ideas are understood metaphorically, i.e. in terms of something immediately graspable, something that is directly delineated from our physical being in the world as humans. This happens mostly unconsciously. We do not question, why we think of ideas as objects when we say we have *dropped* them. It does not seem noteworthy to us anymore that we understand our emotional states in terms of physical orientation in space, such as feeling *high* or *low*. We rarely stop and think who is going to pick up the nerves someone has lost; if we should throw a life vest to someone who is *drowning* in work; or if there is enough space on the floor to stomp on a person's feelings. These sub-conscious sense-making processes also apply to more complex concepts such as experiencing argument as war, or love as a journey.

3. About the Special Connection Between Games and Metaphors

We argue that digital representational games have a natural affinity to metaphors because they need to deal with mediacy and because the abstraction process necessary in game design is a precondition for metaphor creation. What do we mean by that?

3.1. Mediacy

While in real life we draw on metaphors mainly to make sense of abstract concepts and ideas (e.g. understanding ideas as objects or argument as war) metaphors in digital games come

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[3] Lakoff and Johnson refer to concepts and multidimensional gestalts by writing them in captial letters. In this paper we will do the same whenever we refer to an experience *as* concept.

into play on a much more basic level: they build the very foundation for the player's interaction with the game-world and thus their function is not only to make the abstract intelligible, but to make the physical graspable, too. The way and extent to which the gameworld and its various objects and characters, including the player's avatar, become tangible to the player depend to a large degree on metaphors. This is due to the fact that digital games are mediated experiences. Because of technical limitations that make mediation necessary, there is always a gap between the player, his avatar and the game world [Hocking 2008b] The player is physically positioned outside the gameworld which means she is not able to reach into the screen to manipulate it directly; she has only a limited or indirect sensory perception of what is going on inside the virtual environment; if playing some sort of distinct character, she never becomes that characters. "At times, players might experience a strong sense of being invested in, bound to or in synch with the character, but they never step fully into the character's shoes, entirely present in the gamescape." [King and Krzywinska 2006, p.100]

To bridge the gap, translation processes are called for, one thing has to be understood in terms of another thing, e.g. health loss is understood in terms of a shrinking health bar, running is understood in terms of moving the controller's analog stick forward, etc. We will in the following refer to these kinds of metaphors as *interface metaphors*.

3.2. Abstraction

Before designers can decide *how* to make an experience tangible to the player, they need to decide *what* shall be conveyed in the first place. The abstraction process thus is a precondition for interface metaphor design. It further requires a way of systematically analysing and identifying the essential elements of experiences that cannot only be applied to physical concepts but also to abstract concepts. We believe that being able to approach the abstraction process consciously and systematically will facilitate metaphorical game design.

According to Jesper Juul videogames always have "a certain level of abstraction" [Juul 2007]. For one, the designer always has to decide which aspects of the gameworld shall be represented on screen, and further, which aspects of the world shall be implemented into the rule system. Juul:

> If we assume the perspective that games have two complementary elements of *rules* and *fiction* all content in the game can either be purely fictional and not implemented in the rules system (such as in the case of a game's back story), purely rules and unexplained by the fiction (such as the multiple lives of a player), or in the zone in between where the rules of the game are motivated by the game's fiction (cars that can drive, birds that can fly, etc.) […] The combination of rules and fiction is sometimes described as *virtual* or *simulation*. The level of abstraction concerns the border between the content that is purely fictional and the content that is presented in the fiction as well as implemented in the rules of a game. [2007]

The process of abstraction includes highlighting certain aspects of an experience and hiding others. The designer makes a deliberate decision about which elements of the imagined world shall be implemented into the rule-system and which shall remain purely fictional. She also determines the degree of detail to which actions are available to the player. When abstracting,

game designers adopt a certain perspective towards an experience and shape the virtual part of the gameworld (i.e. the part that is implemented into the rule system) according to what they define as crucial to the experience they want to convey and what is neglectable (conscious muscle movement might not be essential to the experience of cooking; adding the right ingredients, stirring and regulating the heat at the right time is. However, if the game should convey the experience of cooking from the perspective of an Alzheimer's patient, then maybe conscious control of body parts becomes an essential element).
Thus, abstraction is a precondition for the design of interface metaphors. The transition between identifying the crucial elements of an experience and translating them into interface metaphors is fluid.

The abstraction process is not just an integral part of game design. It is also fundamental to the way we understand and structure our experiences in real life. According to Lakoff and Johnson, we classify our experiences in terms of complex concepts, so called *multidimensional gestalts* (also referred to as *experiential gestalt* or *multidimensionally structured whole*). A multidimensional gestalt consists of a variety of structural elements (dimensions) that have a fairly obvious experiential basis. The most basic natural dimensions of experiential gestalts are

> *Participants:* This dimension arises out of the concept of the SELF as actor distinguishable from the actions he performs. We also distinguish *kinds* of participants (e.g. people, animals, objects).
> *Parts:* we experience ourselves as having parts (arms, legs, etc.) that we can control independently. Likewise, we experience physical objects either in terms of parts that they naturally have or parts that we impose upon them, either by virtue of our perceptions, our interactions with them, or our uses for them. Similarly we impose a part-whole structure on events and activities. And, as in the case of participants, we distinguish *kinds* of parts (e.g., kinds of objects, kinds of activities, etc.)
> *Stages:* Our simplest motor functions involve knowing where we are and what position we are in (initial conditions), starting to move (beginning), carrying out the motor function (middle) and stopping (end), which leaves us in a final state.
> *Linear Sequence:* Again, the control of our simplest motor functions requires us to put them in right linear sequence.
> *Purpose:* From birth (and even before), we have needs and desires, and we realize very early that we can perform certain actions (crying, moving, manipulating objects) to satisfy them. [Lakoff and Johnson 1980, p.82]

When we are flirting with someone we automatically and unconsciously classify this experience in terms of the natural dimensions of the FLIRT gestalt: who is participating (me and the cute guy); what is the purpose (boost self-esteem, get a date); whose turn it is (mine again? oh no!); what stage we are at (ok, we gathered the basic information about each other. Isn't it about time he asked me for my phone number?) etc. If the actual experience matches the FLIRT gestalt dimension for dimension, we know that there is a flirt going on. Of course, an inappropriate remark or some unpleasant piece of information can make one of the participants lose interest and he/she stops flirting. This will change the experience of the situation. It will not be classified as flirt anymore, because the FLIRT gestalt

stops to fit when there is a mismatch between aspects of the actual activity (formerly trying to impress, now trying to get away) and the dimensions of the FLIRT gestalt.

> 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. [Lakoff and Johnson, p.83]

In the abstraction process, game designers pre-filter information and action possibilities for players. From all the imaginable things they could put into the game, they settle on those that they have identified as the important aspects of an experience and formulate corresponding rules to express their take on the experience. This is also a crucial factor in making the game-world tangible to the player, because it means that the essential aspects of the world and its characters (including the player's avatar) are directly conveyed via the rule-system and cannot possibly be ignored by the player [see Juul 2007; Rusch and König 2007]. It is a medium-specific way of experience design.

So far, digital representational games mainly feature abstractions of gestalts whose dimensions can be directly delineated from experience, e.g. COOKING, WAITRESSING, HUNTING, FIGHTING. We agree that games based on physical concepts can be great fun. They can also make us think differently (or more consciously) about physical processes and activities, thus providing a pleasurable meeting of minds with the designers who identified the essential elements of these processes and activites. However, for games to mature as media, they must not be afraid of abstracting abstract concepts, too. These concepts are structured mainly in terms of metaphors.

> Certain concepts are structured almost entirely metaphorically. The concept LOVE, for example, is structured mostly in metaphorical terms: LOVE IS A JOURNEY, LOVE IS A PATIENT, LOVE IS A PHYSICAL FORCE, LOVE IS MADNESS, LOVE IS WAR, etc. The concept of LOVE has a core that is minimally structured by the subcategorization LOVE IS AN EMOTION and by links to other emotions, e.g., liking. This is typical of emotional concepts, which are not clearly delineated in our experience in any direct fashion and therefore must be comprehended primarily indirectly, via metaphor. [Lakoff and Johnson, p.85].

Designing games that successfully tackle abstract concepts has a great potential of making us see the world with different eyes.
Clint Hocking points out that "the mechanics of trust are not more difficult to model than the mechanics of rope."[2008a].
We share Hocking's belief in the meaning potential of games and we agree that the mechanics of TRUST or other complex abstract concepts might not be more diffcult to model then the mechanics of anything physically graspable. However, we acknowledge the challenge of *identifying* these mechanics in the first place. While it is relatively easy to abstract from something concrete, because its essential dimensions can be directly observed, it can be quite tricky to abstract from something abstract. Before this can be done, the abstract has to be made concrete. A metaphor must be found.
Complex abstract concepts are multidimensional gestalts, too, only that their dimensions cannot be directly delineated from experience. A metaphor is an experiential multidimensional

gestalt that matches the experience of the abstract concept dimension for dimension. Understanding LOVE as a JOURNEY provides the designer with *parts, stages, purposes* and a *sequential structure* that can be more easily abstracted and consequently translated into a gameworld with concrete goals and obstacles etc.

Thus, being aware of these dimensions or elements helps to approach the abstraction process in a systematic manner, both in regard to physical but especially in regard to complex abstract concepts.

4. Identifying the "Blind Spots"

Before we go on to suggest two approaches to how the experiential scope of digital representational games could be expanded by drawing on the metaphorical potential intrinsic to the mediation and abstraction process, we would like to present our interpretation of what we observed in that regard in the explorative qualitative game analyses we did in 2007.

1. Digital representational games mostly focus on tackling physical rather than abstract concepts.
2. Games can tackle physical concepts on two different scales: a) the concept provides the basis for the whole game e.g. a game about WAITRESSING b) the concept provides the basis for a single incident in the moment-to-moment gameplay. Put differently: it is the basis for an interface metaphor.
3. When the concept provides the basis for the whole game, its inherent meaning potential – the insights it can provide into the concept, how it works or what it feels like – tends to survive the abstraction process. To sustain a whole game, designers make use of a range of the concept's dimensions to create game-play opportunities. Carrying out the various actions afforded by the physical concept is a precondition (but not a guarantee) for the multi-dimensional experiential gestalt to become tangible to the player. Only when a complex concept becomes tangible in its multi-dimensionality can it unfurl its meaning potential and provide this "meeting of minds" that caused our dear colleague Clara Fernandez to exclaim over *Diner Dash* "This is exactly how waitressing feels like. They really got it right!"
4. The interface metaphors that are used to convey physical concepts often have an almost "literal" core. They emphasize physical mapping of player input and on-screen action. It seems like game designers are reluctant to draw on physical concepts that require more elaborate translation processes (and thus more visible interface metaphors) to become tangible to players.
5. The apparent primacy of unobtrusive interface metaphors reduces the use of physical concepts on the singular incident level. On the one hand, there seems to be a focus on *essentially* physical concepts – not only can their dimensions be directly delineated from experience, but the physical aspects of the dimensions are in the foreground. Consequently, concepts that are directly experiencable but whose main characteristic is not their physicality tend to be ignored. For example, the CONVERSATION gestalt is physical since its dimensions can be directly experienced, but the essential activities involved, the talking and listening, are not primarily physical actions, but mental processes. Since this is hard to convey in a seemingly

immediate manner, few games even try. On the other hand, even in the physical concepts that are *primarily* physical, there is a limitation. To avoid breaking the "immersive spell" with interface metaphors that draw attention to themselves, the physical concepts employed tend to be either very simple to begin with or, if they are theoretically complex, they are often so abstracted that they can be conveyed in a simple manner. This strategy might foster immersion, but the drawback is that a lot of meaning potential is lost. If the player can cook a whole meal with the push of a single button, she will not gain much insight into the cooking experience.

Through these observations, we realized that current digital representational games did not make full use of the metaphorical potential inherent in the mediacy as well as the abstraction process. We identified two main areas that are underexplored in the design of digital representational, which shall be discussed in the following.

5. Harnessing the Power of Metaphors
5.1. Basing Games on Abstract Concepts

We believe that basing games on complex abstract concepts could indeed provide deep insights into life and the human condition and produce lasting, deeply moving, and profoundly thought-provoking experiences. When the experience of waitressing gained from a game can create so much pleasure because of its resonance with the "real thing", imagine to play a game that manages to convey the mechanisms of LOVE, JUSTICE, EMANCIPATION or SELF-SABOTAGE in a way that resonates with the player. These abstract gestalts are powerful and pervasive in our lives but hard to grasp. When a gifted filmmaker, author or game designer manages to do that for us, it has the potential to change our lives, because something suddenly falls into place, makes sense and we learn something about ourselves. Here are two game examples that achieve this effect.

5.1.1. Passage

Passage is a very simple game that tackles the complex (mostly) abstract concept LIFE. The metaphor used in this game to concretize the concept, to make it graspable and emotionally intelligible to the player, is the JOURNEY. For the JOURNEY to work as a metaphor for LIFE, there must be a match in dimensions between these two gestalts. One of LIFE's most obvious dimensions is temporality. Temporality is commonly represented by some sort of spatial metaphor (e.g. the "timeline"). Now, having the player simply move from A to B, from birth to death, would not have told us much about life at all. LIFE is a rich multi-dimensional gestalt. It has many elements that can be highlighted depending on one's perspective on the concept. *Passage* focuses on the following, creating an individual, deliberate statement about LIFE:

Participants: you either go through life alone or with a significant other.

Parts: the main part of life is, as trivial as it sounds, living it. This is broken down into overcoming obstacles, enduring setbacks, making achievments and encountering surprises. When you play the game in the company of your significant other, sacrifice becomes another essential element of LIFE.

Stages: there is youth, old age and eventually death.

Life progresses in a *linear sequence* towards death. There is no way to turn back time or skip part of the way. But there is memory on the one hand and a foggy idea of what the future might hold on the other hand.

Purpose: The game does not provide an answer to the philosophical question of what the purpose of life is. Instead, it allows you to formulate your own goals and act accordingly. This game makes only one explicit claim about life, namely that death is inevitable.

So, how are LIFE's dimensions matched by the dimensions of the JOURNEY gestalt, both visually and in terms of game-play? Most obviously, living is translated into screen navigation. You control a single character represented in simple, blocky 2D graphics. At all times, you can only perceive a very limited section of the gameworld. Moving left and right, up and down allows you to explore it, but your perspective stays restricted. The effect is quite profound: you realize that you will never know what you are missing unless you go and find out. Once you started exploring life, you become aware of how much else there must be that you will never get to experience. However, you can also choose to stay put and wait for death. The game makes it quite clear that what you get out of life is really up to you. At the beginning of the *Passage*, you might encounter a female character. A big read heart will appear, symbolizing love, and she will start following you around. There is also the possibility that you never meet her. True love is an option, not something that is guaranteed. Should you choose to explore life with your companion – the alternative would again be to just wait on the spot until your time is up and you both die – you will discover that a relationship requires sacrifice. Passage through life is not without obstacles – represented by walls as obstacles in space – and sometimes navigating around an obstacle is rewarded by an experience – represented by boxes that boost your experience (?) meter on the top right corner of the screen. The passage *à deux* makes navigating around these obstacles more complicated and you have to spend time to find another route that is broad enough for both of you. It also means that you cannot collect all the boxes, implying that some adventures or experiences are out of reach when you are in a relationship and need to take somebody else into account.

In *Passage*, LIFE is represented by a spatial metaphor. This space is visually restricted by "blurry edges" i.e. the pixels at the left and right edge of the screen appear to be scrambled. As you move, all the landscapes, obstacles, and objects you encounter seem to unscramble out of the blur in front of you and scramble again into the blur behind you. One reading that suggests itself: the scrambled left and right edges of the screen are a visual metaphor for the human cognitive experience of life, one in which a hazy future and a hazy past are expressed in scrambled pixels. So not only is LIFE a JOURNEY, it is a journey in which only the immediate present can be clearly comprehended. As you near the end of your virtual life in *Passage*, you have the experience of looking back at the scrambled pixels that represent your past and attempting to make them out, an abstract representation of the loss of memory in old age. Also, as time – but not necessarily your exploration of the gamespace – progresses you get automatically pushed towards the right side of the screen. The blurry edge on the right side that has once held the promise of new adventures slowly turns into a grey haze. Your future is used up and so is your time on earth. Should you not have made good use of it, it is now too late. *Passage* is a simple game but the five minutes of playing time might bring up some difficult questions about how you choose to live your life. Memento mori.

5.1.2. Ico

Ico is a game that has been widely recognized in the videogame community for its exploration of the multidimensional gestalt COMPANIONSHIP. COMPANIONSHIP is only partially structured metaphorically. Some of its core dimensions are physical and can be directly delineated from experience. It is quite clear, for example, that COMPANIONSHIP includes at least two *participants* and that one essential *part* of the experience consists of being physically together over a certain amount of time. In the case of *Ico* these participants are a young boy with horns who has been sent away by his village to be imprisoned in a huge castle, and the fragile and ghost-like princess Yorda, which is also held prisoner there by her mother, a wicked sorceress. Physically being together over a certain amount of time manifests itself in Ico's and Yorda's mutual traversal through the castle. The *stages* of COMPANIONSHIP are also directly experiencable, the initial stage being meeting for the first time, which is followed by a stage of getting to know each other and bonding. In the game, Ico's and Yorda's aquaintance begins with Ico freeing Yorda from the huge birdcage she is imprisoned in. From that moment on, Yorda follows you around and you soon realize that she does not only look fragile, but actually is physically weaker than you are and quite absent-minded. It soon becomes clear that she needs your help to overcome the many obstacles on the path to freedom and your protection from the shadow demons that appear unexpectedly, trying to abduct her into smoke portals. The *purpose* of COMPANIONSHIP is normally an end in itself – companionship for companionship's sake. However, the circumstances under which Ico and Yorda meet and their complementary abilities add another dramatic element to their relationship: they depend on each other to escape. Not only does Yorda need Ico's help and protection, Ico also needs Yorda's supernatural powers to open the magic doors that regularly block their path. She further makes him stronger in combat and helpfully points out possible next steps, when Ico seems to be stuck.

Many elements constitute the emotional experience of *Ico*. The fantastic graphics, the music, and of course the extremely powerful game-play mechanic of holding Yorda's hand by pressing the R1 button on the Playstation controller that serves multiple relationship building purposes: e.g. holding her hand allows you to keep her close in case shadow demons attack; you hold her hand when helping her over a particularly difficult chasm and you grab her hand when pulling her out of smoke portals. But what is most interesting for our purposes is to investigate how the designers managed to make the more abstract *parts* of the COMPANIONSHIP experience tangible to the player, namely the feeling of caring and responsibility for Yorda. Caring for somebody can be understood as being concerned about the other person's well-being. Feeling responsible for somebody implies some sort of hierarchical difference in abilities between the person who feels responsible and the recipient of this feeling. The journey through the castle offers many opportunities to construct concrete situations where due to the imbalance in abilities between Ico and Yorda, caring and feeling responsible comes naturally. Due to Yorda's lesser physical abilities, you frequently have to create a safe passage for her. This forces you to leave her behind, while destroying blockages or letting down draw-bridges. Unfortunately, this means you are not there when shadow demons attack, which can happen at any time. Being aware of this makes it impossible to just focus on the task at hand when away from Yorda. You are

constantly concerned about her well-being and hurry back to her so you will be there, when she needs you.

In *Ico* the physical dimensions of COMPANIONSHIP are complemented by metaphors for the not so readily understood ideas of caring and responsibility. You literally fight for your love, lend her a helping hand and pave the road for her, but what becomes emotionally intelligible is something much more subtle and ephemeral, and this makes this game such a powerful experience.

5.2. Visible Interface Metaphors: Using the Potential of Complex Physical Concepts

More visible, multi-modal interface metaphors would open games up to a wider range of experiences, enabling designers to tackle experiences that cannot be conveyed to the player *directly* either because of the gap between gameworld and player or because of the gap between player and avatar. Interface metaphors that are not simply based on physical analogies between real-world input and on-screen action but draw on more complex translation processses can help to at least approximate or "fake" these experiences. On the one hand, this allows game designers to take on complex physical concepts that are not primarily physical (such as the CONVERSATION gestalt), which provides a great inspiration source for new game-play ideas. At the same time it creates pleasurable insights into these gestalts. How this can be achieved will be illustrated by an analysis of the parley mini-game featured in the MMORPG *Vanguard*.

On the other hand, dealing with the gap creatively enables experiences players could never have in real life, not just because of possible dangers, but because they stay always themselves. How interface metaphors cannot only simulate stepping into the shoes of the heroe, but into the body of a completely different species will be illustrated by a close reading of *Mr. Mosquito*. This example will also show to what large extent game design choices depend on the designers' subjective interpretation of an experience and how much ideological potential interface metaphors thus possess.

5.2.1 Vanguard: PARLEY

Convincing communication with NPCs is still quite an AI challenge and so far it is impossible to convey this experience to the player in an apparently immediate manner. Michael Mateas and Andrew Stern made promising attempts at solving that problem in their *Façade* project [2003], but it also showed that the technology is not quite there yet and playing the game evokes some strange effects when the NPCs suddenly become psychotically unresponsive.

In current digital representational games, dialogues are usually chopped into prescribed pieces and the player can choose an answer or question from some sort of menue in the course of the conversation. The experience is reduced to the dimensions of listening (or reading), understanding and waiting your turn to reply or ask the next question. Often, there is not even much choice involved in picking an answer / question since the player has to go through all the options before the game continues, so the important strategic element inherent in real-life conversation is reduced to a minimum. Dialogues in current digital representational games thus serve the communicative function of information transfer (often they are skipped by the player altogether, because the information can be obtained in other ways, too), but they have only a peripheral resemblance to the actual experience of talking to another human, because only a

fraction of the gestalt's essential dimensions is integrated into the game. This is a pity since the various forms of CONVERSATION provide a rich source for insightful and rewarding experiences.

A game that dares to tackle an interesting variant of conversation is the MMORPG *Vanguard*. *Vanguard* features a mini game called *parley* that aims to make the experience of diplomatic negotiation tangible to the player. Since apparent immediacy is not an option to convey this experience, the designers tried to make it enactable via metaphor: they translated the experiential gestalt of PARLEY into a strategy card game, whose rules match those elements of PARLEY the designers have identified as essential to the original experience. PARLEY is a physical concept. In real life, metaphorical understanding of the concept would not be necessary, since its dimensions can be directly delineated from experience. But to make it tangible in the context of a game, where interaction must be mediated, the metaphorical understanding serves as precondition for the design of a working interface metaphor.

The *parley* game is rather complex, and we will not explain it here in detail, but point out only some of the dimensions the designers have identified as essential to the original experience and therefore implemented into the game's rule system.

- The *purpose* of the game is to convince your opponent (an NPC) to do something he / she is not willing to do from the start (e.g. trust you, give you information etc.)
- Both *participants* have a variety of conversation cards (=*parts*) which represent different statements. The player gets to choose his deck of five cards in the beginning of the mini game. Playing of cards is turn based. Each card has a specific point value. By playing the right card, you "make your point" and the conversation slider moves towards your NPC or back to the player's side when she is losing ground in the course of the conversation.
- Card value depends on character class. This implies that certain personality types have particular persuasive strengths and weaknesses. Not everybody is a born flatterer. If flattery works depends on the flatterer. Also, not everybody has a talent to demand.
- By exercising parley, one gets better at it, in the sense that the quality of the actual conversation statements improves (e.g. the awkward flattery from the beginning becomes sophisticated, unresistable complementing). This is analogous to improvement of vocabulary and expressive finesse in real life.
- Another similarity to real life negotiation is that the player has to vary her strategy. If she continuously boasts or flatters, she will lose all credibility. Thus, a particular statement card is tapped for a while after it has been played out. (This is comparable to recast timers in physical combat.)
- To win the game, the player has to get rid of all her conversation points before her opponent does, meaning she has to *make her point* before the other party had a chance to do so. That the initial card set is limited can be interpreted as analogy to the limited patience of real life conversation partners. You know in advance that this exchange cannot go on forever

and you have to be clever, forward looking, strategic and efficient if you want to succeed.

Only with time does the richness of the metaphor become clear to the player and how well it matches the experiential gestalt it is imposed on, dimension by dimension. If the player wants to play the game well, she needs to understand and interpret its rules. Doing so creates insight into the mechanics of diplomatic negotiation, providing cognitive pleasure upon the realization of what the rules *mean* in regard to the experiential concept they model. Further, by enacting PARLEY in this manner, the emotional experience of negotiation is approximated, giving the player an opportunity to feel skillful, even if the skills used are mathematical rather than verbal. It is a metaphor, after all.

5.2.2. Mr. Mosquito

Mr. Mosquito is a game that claims to create the day-to-day experience of being a mosquito in a Japanese home during hot summer. The game is built on the physical concept of MOSQUITOHOOD as seen from the perspective of humans. From the human perspective being a mosquito seems to be all about preying upon the victim, finding the right spot to land and sucking her blood. Thus, these are the central game-play elements of the game. In sum, these activities supposedly allow the player to experience the thrills of being a mosquito, which, apart from skillful navigation, also consist of the pleasures of voyeurism.

While the spying and flying and landing are not so different from other games featuring anything airborne or stealthy, the blood sucking is. Herein lies the "mosquitoness", and *Mr. Mosquito* goes to great lengths to make sucking a challenging experience. Once the player guides her avatar, a cute and somewhat abstract-looking mosquito, to her target, the naked flesh of an unsuspecting family member, the suckery can begin. How does one translate the experience of not only sucking blood, but sucking blood like a mosquito, when the only delivery device is a Playstation 2 controller? A serious multi-modal interface metaphor is called for.

Before sucking the player must penetrate the victim. *Mr. Mostquito* prompts the player to press the R3 button, which is accomplished by depressing the analog stick itself. The player pushes the stick down, into the controller, and the mosquito on-screen pushes its proboscis down, into the human's skin. This is accompanied by a squeak of pleasure. Now the player is prompted to rotate the analog stick clockwise in order to suck blood. A vertical meter appears on the screen with a fluctuating blue haze in the middle. There is also a white circle in the meter, which quickly begins to fall towards the bottom. The faster the player rotates the analog stick the faster they suck, which causes the white circle to move up the meter. The player tries to keep the white circle in the middle of the blue haze without letting it touch either the top or bottom of the meter. If she fails, the victim suddenly "feels" the bite and swats the mosquito into oblivion. The goal is to keep the victim from feeling the bite while collecting a certain amount of blood needed to accomplish the level goal.

Mr. Mosquito makes sucking an action with a certain amount of tension and nuance. It is also physically exhausting, since the player must perform a repetitive muscle action (rotating the analog stick quickly) in order to suck. The player must try hard to suck, similar to how they might have to exert themselves when sucking in real life. When sucking in real life – e.g. when sucking liquid through a straw – you must exert the muscles in your face to create a vacuum. *Mr. Mosquito* defines the essentials of sucking as physical exertion and timing, qualities

that humans associate with sucking. Interestingly, this is at odds with how mosquitos actually suck blood. Real mosquitos do not suck. They inject their victims with their saliva, which acts as an anti-coagulant. This prevents the blood from clotting, allowing it to flow into the mosquito based on the human's own blood pressure.

Mr. Mosquito does not actually model the mosquito experience at all. More accurately, it models the human assumption of what the mosquito experience is like, and what pleasures it could provide, should the insect possess a (particular) human mind. Given that the target group for the game is humanoid rather than insectoid, this approach makes sense. Consequently, the game provides a metaphorical model that enables players to sneak up on people, penetrate them, and steal their fluids through repetitious physical exertion. In this way, *Mr. Mosquito* models the voyeuristic and sexually predatory instincts of human beings. *Mr. Mosquito* seems quite aware of this and reinforces it in every aspect, first and foremost by the fact that the mosquito is—impossibly—male (only female mosquitos suck blood.) The first challenge in the game involves sucking the blood of the family's 14-year old daughter, whose body has to be identified for "suckable" points. Add to this the orgasmic squeak the (male) mosquito makes when penetrating his prey as well as the vaguely erotic moaning the girl makes when she is being sucked, and it seems quite obvious that the gestalt *Mr. Mosquito* is indulging in has very little to do with insect biology and everything to do with human biology. It uses the concept of MOSQUITOHOOD to loosely arrive at an interface metaphor that is modeled primarily on human sexual concepts. In this lies its appeal and, depending on your perception, its charm. The makers of Mr. Mosquito clearly understand the metaphorical affordances of videogames. They've constructed a game in which insectoid haematophagy is not only made palatable in terms of a controller interface, it adds an additional metaphorical layer of human meaning to this behavior. Mr. Mosquito is a game in which being a mosquito can be understood as a metaphor for being a sexual pervert.

6. Conclusion

In this paper, we explored the special relationship between digital representational games and metaphors. We asked how it could be harnessed to produce emotionally rich, insightful and though-provoking experiences. Based on our preliminary qualitative game analyses that helped us identify potential for future development of games, we suggested two distinct approaches: a) basing games on abstract concepts and b) using the power of multi-modal interface metaphors to tap the experience potential inherent in complex physical concepts. In regard to approach a) we explained that the process of abstraction intrinsic to game design is also fundamental to the way we make sense of our everyday life. We understand and structure our experiences by way of identifying their essential elements, by highlighting what is important to an experience and by ignoring what is not. We do so in regard to straightfoward physical concepts, but also in regard to complex abstract concepts, only that to understand abstract concepts we additionally draw on metaphors. The problem is that these sense-making processes are largely unconscious. To make games that successfully tackle abstract ideas, it is crucial to make these sense-making processes conscious again, to abstract from the abstract and to make it concrete by finding suitable metaphors that can be enacted by the player. We illustrated this approach with close readings of the games *Passage* and *Ico*, hoping to provide a more systematic understanding of how

abstract concepts can be made tangible, first for designers, then for players.

In regard to approach b) we showed how dealing creatively with the gap between game / avatar and player can also dramatically expand the experiential scope of digital representational games by way of multi-modal interface metaphors. Having to identify metaphors for everyday experiences to bridge this gap can make the player see the usual from an unusual perspective, as shown with the parley example from the MMORPG *Vanguard*. Further, if every complex interaction with the gameworld requires complicated interface metaphors anyway, you might as well attempt to translate unusual experiences such as being a Mosquito. The restrictions of the medium, the impossibility of direct manipulation, could be seen as an invitation for experimentation. Nothing will be truly immediate anyway, so why not tackle the extraordinary? Whatever experience designers choose to make tangible, it will always start with their personal interpretation of this experience. Be it in regard to abstract or physical concepts, coming up with suitable metaphors is key. Metaphors are never neutral. They are not totally idiosyncratic either, but shaped by socio-cultural factors. They provide a perspective about how things are and feel like, and thus contain strong ideological potential. Being conscious about this potential and using it will foster games that are *about* something.

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