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„The Play Experience - A Constructivist Anthropology on Computer Games“

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Mag. Nikolaus König

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Contents

Introduction 7

The 'truth' about games 7

Guiding perspectives 12

The Play Experience 15

Research question: 'Why do people play games?' 19

The structure of this thesis 20

Part 1: Constructivist Game Studies 29

1.1 The Constructivist Game Scholar's Toolbox 29

1.1.1 Contingency as a key concept 29

1.1.2 Constructivism as a long-range theory: Epistemology 30

1.1.3 Constructivism as a mid-range theory: Societies 35

1.1.4 Constructivism as a low-range theory: digital games as constructed realities 38

1.2 First construction: Rules and Reality 43

1.2.1 Reality status of games: representation, interaction and rules 43

1.2.2 What is 'real'? 47

1.2.3 Rules and Commands 49

1.2.4 How to Rule a Kingdom 50

1.2.5 Immersive Realization of Rules 54

1.2.6 Conclusion: the 'Reality of Games' 57

1.3 Second Construction: Play Definitions 59

1.3.1 Delineating concepts of play 59

1.3.2 A mechanical conception of play 88

1.3.3 The 'Stitches' Problem: Immersion and the 'active creation of belief' 92

1.3.4 The design of challenge and the question of serious games 96

1.3.5 Play and Violence 99

1.4 Third Construction: Contingency 105

1.4.1 The relation of games and narrative 105

1.4.2 Constructing game narratives 109

1.4.3 Summary: making contingencies tangible 134

Part 2: Constructing (Gaming) Experiences 137

2.1 Breaking Down Experience 143

2.1.1 Experiential set up 145

2.2.2 Experiential perspective 147

2.2 First Case Study: Experiential set up / perspective of '9/11' and 'Independence Day' 150

2.2.1 Conception of the United States before 9/11 151

2.2.2 Experiencing 9/11 as a media event: David and Goliath 153

2.2.3 Experiential perspective(s) on 9/11 154

2.2.4 Perspectives in western culture: the motion picture 'Independence Day' 157

2.2.5 Experiential set up and experiential perspective as building blocks of experience 163

2.3 Second Case Study: Experiential set up of the 'contemporary zombie topos' and the 'horror theme' 165

2.3.1 The traditional zombie topos 165

2.3.2 The contemporary zombie topos 167

2.3.3 Romero's zombies as epitome of horror 174

2.3.4 The appeal of horror: experiential set up 177

2.3.5 Experiential Set Up of the Modern Zombie Topos 178

2.4 Third Case Study: The 'contemporary zombie topos' in Survival Horror Games and MMORPGs 180

2.4.1 Items and Inventory in Survival Horror Games: Make do with what you got 184

2.4.2 Inventory Space in (MMO)RPGs: Pick your battles (several answers possible) 189

2.5 Summary: constructing experiences 192

Part 3: The Play Experience 197

3.1 Play, Satisfaction and Anthropology 197

3.1.1 Who defines "games" ? 199

3.1.2 Levels of satisfaction: Ernst von Glasersfeld and 'curiosity' 204

3.1.3 Constructivist anthropology 208

3.2 System Experience 213

3.2.1 System Experience and established systems theories 214

3.2.2 System Experience Everywhere 234

3.2.3 A Model of System Experience 251

3.3 Play as Pleasure and Satisfaction within discrete systems 291

3.3.1 'Why do people play games?' 293

4 Summary, Implications & Conclusion 297

4.1 Summary 297

4.2 Implications 303

4.2.1 Implications for the game studies discourse 303

4.2.2 Implications for constructivist theory 311

4.3 Conclusion 316

5 References 319

5.1 Bibliography 319

5.2 Internet Ressources 325

5.3 Images 326

5.4 Music, Film and Television 326

5.5 Games Cited 327

6 Acknowledgements 329

Introduction

"Now that, detective,
is the right question"
(Dr. Alfred Lanning's holographic projection)[1]

The 'truth' about games

It could very well have been 'a dark, rainy night', for all the dramatic events to follow. But it was a sunny day in spring 2011, when the world of computer game studies seemed to be shaken to the core. After almost two decades, the field of 'game studies' had gained its reputation as an academic discipline in its own right, fueled by its own theoretical discourses and methodologies, represented by an increasing number of institutions and conferences dedicated to computer game research, and game scholars around the world were eagerly and confidently gaining an ever better understanding of the issues and implications of a fascinating new media.

But there was trouble in paradise.

The trouble began when, on March 22nd 2011, Miguel Sicart, associate professor at the IT University of Copenhagen's Center for Computer Games Research, used 'Gamesnetwork', the Digital Games Research Association's online discussion list, to promote a PhD course which was to be held the following summer[2].

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[1] *I, Robot* (20th Century Fox, 2004)

2 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;4a31a0d2.1103

The title of this course was 'Against Proceduralism', and the course description was regarded by some as a clear assault on a common conception of the nature of games and its proponents, namely "the notion that computer games should primarily be understood in terms of formal rules and mechanics – that computer games are, first and foremost, a "procedural" medium"[3]. Within the hour, Ian Bogost, game scholar, designer and one of the implied spearheads of the alleged 'proceduralists', replied to Sicart's post, and his response was a simple and definite: "No."[4]

What Bogost so clearly opposed against was the implication of an ideological conflict dividing the game studies discourse, an antagonism based on insurmountable differences between opposing theorists. This spontaneous 'parrying reflex', however, was rooted in the history of the discipline, and even Sicart's affiliation with the Center for Computer Games Research may have added to this instanteneous defense.

More than a decade earlier, it was from this institution that a group of game scholars kicked off a debate that led to a long-standing controversy and, finally, laid the base for a theoretical 'self-discovery' which some regard as the starting point of today's game studies as an academic discipline in its own right. This debate, which is commonly referred to as the 'narratology - ludology' debate, evolved around the question whether digital games were to be assessed as a narrative media (therefore allowing the re-application of theories and methods

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3 for the course description see:
http://www.itu.dk/en/Forskning/Phd-uddannelsen/PhD-Courses/PhD%20Courses%202011/Against-Procedurality

4 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;8a85d535.1103

deriving from established disciplines, like literature and film studies), or whether the specific nature of interactive games called for a more original approach, and therefore legitimated the formation of a new discipline[5].

Long before March 2011, the 'narratology - ludology' debate had reached a point where the initial opposition gave way to more fruitful discussions on the specific ways ludic elements may also convey meaning, thereby simply constituting a new form of narrative[6], and allowing a more comprehensive understanding of the different kinds of narrative that games can enable through their ludic design[7]. And yet, Sicart's proclamation 'Against Procedurality' seemed to have hit a nerve layed bare in the early days of today's game studies discourse, and the idea that, again, an artificial 'war of theories' (and theorists) might be declared, was at the center of Bogost's response:

> "In this context ("Against Proceduralism"), the name you give us has rhetorical heft alone. It serves to name an enemy that doesn't exist. It serves to cast that enemy as a coarse reductionist "determinist" re-

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5 see: Juul, Jesper: "A Clash between Game and Narrative - A Thesis on Computer Games and Interactive Fiction", Copenhagen, 1999. (Master Thesis, University of Copenhagen); Arseth, Espen: "Genre Trouble: Narrativism and the Art of Simulation", in: Wardrip-Fruin, Noah; Harrihan, Pat (Eds.): "First Person - New Media as Story, Performance, and Game", Cambridge, M.A./London, 2004, p. 45-55; Frasca, Gonzalo: "Simulation versus Narrative - Introduction to Ludology", in: Wolf, Mark P.J.; Perron, Bernard (Eds.): "The Video Game Theory Reader", New York, N.Y./London, 2003, p. 221-235.

6 see: Brand, Jeffrey E.; Knight, Scott J.: "The Narrative and Ludic Nexus in Computer Games: Diverse Worlds II", Proceedings of the 2nd DIGRA International Conference: "Changing Views: Worlds in Play", 2005.

7 see: Jenkins, Henry: "Game Design as Narrative Architecture", in: Wardrip-Fruin, Noah; Harrihan, Pat (Eds.): "First Person - New Media as Story, Performance, and Game", Cambridge, M.A./London, 2004, p. 118-130.

> gime out only to celebrate the machine and to deride the human beings that invent and drive them."[8]

In the days following the initial post, a heated debate arose, and the focus quickly shifted from the discussion of Sicart's statement on 'proceduralism' to a more general controversy concerning the 'adequate ways' to address games in the game studies discourse. In no more than a week, 117 messages were posted in the thread - an outstanding number in comparison to the usual discussions on the forum, reflecting how significant the issue was deemed by the community. In the course of this controversy, a multitude of different positions were presented, ranging from the idea of game systems as art[9] to the role given to the player, from the fear of "social scientists and cultural critics, swooping down from above to wag their fingers at so many trenchant, ignorant technicians"[10] to the question whether the present discussions didn't simply reflect the 'narratology - ludology' debate[11] (which it didn't), and, finally, the debate focussed on some participants' conviction that "cognition 'rests' on affect, and not the other way around"[12].

From a constructivist perspective, however, it is of minor importance which respective positions were taken in the course of the debate. What seems more important is the observation that the discussion seemed to be guided by attempts to find the 'right' perspective on games, and that the validity of each position

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8 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;1a47fdf1.1103

9 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;b4b9ba76.1103

10 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;b5d662d1.1103

11 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;338adb7d.1103

12 https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;e23dd7e9.1103

seemed dependent on the exclusion of its alternatives. This realist attitude is especially surprising in the field of computer game studies, a field which is concerned with problems that seem quite similar to those posed by constructivist theorists.

In digital games, increasingly complex game systems do not suggest the search for the game's 'true' meaning as a viable option; instead of unraveling a predesigned narrative or finding the 'right' way to play the game, the act of playing can hardly be grasped by the question what players 'have to do' in the game, but rather by the assessment of what different actions and strategies provide viable options to confront the game world. Consequently, constructivist issues *do* flare up in the game studies discourse, even if they do so implicitly. For instance, Janet Murray's suggestion to replace the idea of 'willing suspension of disbelief' with the notion of 'active creation of belief'[13] when it comes to digital games has become a commonplace in the discourse, and it clearly emphasizes the players' role not only in creating and reinforcing the meaning of the game, but also in constituting the 'nature' of the game itself through active participation in the construction of the game world. Given that the idea of contingencies seems far more productive for the assessment of games and gaming experiences than the idea of 'absolute truth', the committment to find and argue such a truth which dominated the above mentioned debate seems especially noteworthy.

This thesis is guided by the assumption that constructivist theory can provide a useful framework for the assessment of play and games, and, therefore, prove

13 Murray, Janet H.: "Hamlet on the Holodeck. The Future of Narrative in Cyberspace", The MIT Press, Cambridge, M.A., 1997, p. 110ff.

to be beneficial for the game studies discourse. Not only does constructivist theory and the idea of contingencies promise to be a fruitful perspective for the assessment of digital games and player experiences, it might also provide a base for contingent theories *on* games and gaming, neglecting the need to choose one perspective over the other, but enabling a variety of different approaches and, thereby, an expansion of the field itself: why not have it all?

Guiding perspectives

The close relation between constructivist theory and issues of play and games, however, does certainly not suggest constructivism as an encompassing theoretical approach fit to 'solve all problems' of the game studies discourse. But a constructivist approach might highlight certain aspects of the field which currently pose problems that are hardly accessible from a realist perspective, and may provide more viable tools to get a grasp on these issues.

However, even though the application of constructivist theory to the field of computer game studies and, more specifically, the assessment of player experiences is at the core of this project, there is another, complementary perspective which fuels this endeavour.
While this project is most certainly intended as a contribution to the game studies discourse, aimed at an expansion of the field's theoretical foundations, it is also intended as a contribution to constructivist theory, aimed at the expansion of this theoretical framework's scope by applying it to and adapting it for the assessment of player experiences.

This second perspective is guided by the conviction that constructivist theory is not only an epistemological, but an inherently anthropological approach (an argument which will be examined more closely in the third part of this thesis), an approach which, by highlighting the role of mental processes in the construction of perceived 'realities', is closely tied to the terms and conditions of human experience. These terms and conditions do not simply constitute the difference between what is appraised as real and what is not, but may be accounted for far more complex processes of cognitive construction, manifesting themselves in many different and seemingly contradictory layers of 'realities'.

Experiences of 'play' seem to stand out in this regard as a quite peculiar kind of 'reality', and may provide a promising area of application for constructivist theory. As Gregory Bateson notes, play-actions are "similar to, but not the same as"[14] the serious actions they resemble, constituting play as an experience which is not regarded as 'real' in a narrower sense, but still quite different from an experience of decided unreality.[15] It is this indetermination of play experiences which enables an examination of the delicate terms and conditions underlying the construction of cognitive realities, and may therefore provide a promising object of research for a study guided by constructivist theory.

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14 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 316.

15 Even if his argument is derived from a quite different observation, namely the reality of a game's rules versus the unreality of its fiction, Jesper Juul's term "half-real" expresses a basic characteristic not only of (digital) games, but of experiences of play in general; see: Juul, Jesper: "Half-Real. Video Games between Real Rules and Fictional Worlds", The MIT Press, Cambridge, M.A., 2005, p. 1.

Gregory Bateson's abovementioned essay "A Theory of Play and Fantasy"[16] and its use in different academic contexts may serve as a prototype for the dual perspectives of this project - the application of constructivist theory to the field of game studies on the one hand, and the use of phenomena of play and games as an occasion to expand constructivist concepts on the other. While Bateson's text actually focusses on the nature of human cognition, aiming at an assessment of 'fantasy', especially in a psychotheurapeutical context, and employing observations of play as a mere example for the construction of events experienced 'as if' they were real[17], the essay has become a central text in game theory, emphasizing the examination of play over its initial objective as an assessment of processes of cognition and communication. Even though Bateson does not use the term 'experience' as explicitly as the term 'play', it is his focus on 'play experiences' which makes this rededication of his text possible, as it allows for a perspective on phenomena of play and serves as a conceptual input for theories of games and play even in today's game studies discourse, just as it enables a perspective focussed on the terms and conditions of human experience, which makes the text a valuable premise for constructivist theory as an anthropological approach.

In order to provide for both perspectives, and in the aim to contribute to an expansion of game theory and constructivist theory alike, the present study will therefore focus on this 'play experience', and attempt to develop a viable un-

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16 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 314-328.

17 see: Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 321.

derstanding of phenomena of play in terms of a constructivist-anthropology. 'The Play Experience', therefore, does not incidentally serve as the title of this thesis; it is this play experience which may provide the pivotal point of what may be coined 'constructivist game studies'.

The Play Experience

As a constructivist perspective allows to focus on the experiential aspects of play and an assessment of the processes underlying the construction of these experiences, this perspective also suggests an understanding of games as a manifestation rather than a cause of this 'play experience'. Contrary to the idea that "games create play"[18], which implies the idea of 'games' being phenomena of the 'outside world', enabling 'play' when players engage with these 'objects', it might be suggested that 'play creates games', as it is the specific constructions underlying an experience of play that decide which activities we perceive as 'games', and which we decide not to label that way. This perspective still allows an assessment of game structures and the different ways in which game artefacts suggest or negate different experiences, guide player behaviour or convey meaning, and is thereby consistent with according practices of the game studies discourse. But by emplyoing a constructivist perspective, the implications of game structures and mechanics gain significance in their quality as obstacles of player interaction, suggesting specific strategies and interpretations on the players' side as more viable than others, rather than artifacts which create experiences in their own right.

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18 Salen, Katie; Zimmerman, Eric: "What is Play?", in: Salen, Katie; Zimmerman, Eric: "The Game Design Reader: a rules of play anthology", MIT Press, Cambridge, M.A., 2006, p. 83.

It is this quality of games as obstacles of player interaction which provides the most significant argument for a constructivist assessment of play and games, and this argument becomes even more obvious when the basic difference between digital and non-digital games is taken into account.

In non-digital games, maintaining the terms set by the game's rules falls to the player(s), as the game may contain suggestions which rules may be applied in order to provide a satisfying gameplay experience, but it is the players' active decision to play by these rules, as the game itself does not and can not uphold the consequences determined by these rules: while the rules of (non-digital) chess state that the game ends when one of the two kings is defeated, there is no obstacle other than the players' devotion to these rules which excludes the option to continue playing until there are no pieces left on the board. These rules and the conditions they specify are neither objective nor absolute, but dependent on social agreements on the players' side. In this case, the concept of 'make believe' does not refer to a fictional layer of the game ("let's act as if we were commanding two opposing armies"), but extends to the binding character of the rule system ("let's act as if the defeat of a king ended the game").

This kind of play experience in non-digital games reflects the idea of cognitive realities as results of social processes of construction[19] in a quite straightforward way: the game of chess actually ends when one of the kings is defeated, simply because players have agreed to end it as soon as this condition is met.

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19 see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 404-409.

Digital games, however, present their players with a very different kind of experience. The rules and mechanics of digital games provide obstacles for player interactions that are in no way subject to negotiation; in a game of digital chess, there is no way to continue the game once a king is defeated, as long as this condition is specified in the game's code. The conditions set in this code are not directly accessible to players, but can only be experienced through the actions that are possible within the game, and those which are not. In digital games, players can explore viable options in dealing with the obstacles presented by the game through interaction; these interactions, however, do in no way reveal the 'nature' of these obstacles themselves, but only the possible ways to work around them. This characteristic of digital games is stunningly similar to the epistemological considerations underlying (radical) constructivist theory, which grant the possibility of ontological reality, but negate the possibility to perceive this reality other than through the experience of possibilities and impediments it poses to our attempts to circumnavigate the obstacles it presents[20].

Not only does this similarity suggest constructivist theory as a useful theoretical framework for the assessment of play experiences in digital games, but it is due to that similarity that digital games might provide a rare opportunity to reassess and expand constructivist theory. While there is no way to be certain about the existence or nature of an ontological reality, and while the terms and conditions of mental processes underlying the construction of cognitive realities can

20 see: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, esp. p. 19. and Glasersfeld, Ernst von: "Knowing without Metaphysics: Aspects of the Radical Constructivist Position", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, esp. p. 17f.

therefore not be tested against the 'actual' character of such an 'ontic world', digital games may be the closest thing to a 'simulation' of this epistemological assumption. If the game's rules and mechanics are regarded as an emulation of what could be seen as equating an 'ontic world', as terms and conditions not directly accessible to players, but as obstacles to their interactions, determining and limiting what kinds of interaction prove viable within the game world and which don't, then the players' ways to deal with these obstacles and, consequently, make sense of the game world may shed a light on the mental processes underlying the construction of cognitive realities in general.

Again, it is a focus on the 'play experience' which may provide a key to the endeavour of approaching digital games as such an 'epistemological experiment', and promises to tie together the dual perspectives of this project by expanding constructivist theory on one hand, and by enabling a thorough discussion of issues central to the game studies discourse on the other. While this focus on the 'play experience' raises a multitude of questions, the research question of this project will highlight one specific problem, which again seems crucial both for the discussion of the construction of human experiences, and the theoretical assessment of games: *why do people play games?*

Research question: 'Why do people play games?'

This question, which Simon Egenfeldt Nielsen has pointed out as one of the 'larger questions' of the game studies discourse[21], may seem broad at first, but it gains more accuracy when it is limited by the two perspectives underlying this project: from a constructivist perspective, the question 'why do people play games?' can not be answered in a positivistic or absolute way, but only by developing viable models of the role of play experiences in processes of cognitive constructions. (this 'ontological non-committment' will be discussed in the Chapter 'The constructivist game scholars toolbox').

The aim to root this project in the game studies discourse, however, also negates the possibility to answer the question 'why do people play games?' in terms of possible purposes or benefits that may be tied to playing games. While there is no doubt that games may in some ways effect players, and that some of these effects may be regarded as beneficial, it is a well-established agreement in the game studies discourse to regard games as purposeless and unproductive when it comes to players' motivations to engage in games; a game *played for* its beneficial effects would simply not meet the definition of a game in the context of game studies (a delicate, but viable definition, which will be examined more closely in the third part of this project). As this project's focus is on the play experience and, therefore, on the players of games, this definitory agreement applies, and excludes the option of easily dismissing the question 'why do people

21 Egenfeldt Nielsen, Simon; Heide Smith, Jonas; Pajares Tosca, Susana: "Understanding Video Games", Routledge, N.Y./London, 2008. p. 4. The question Egenfeldt Nielsen formulates is "Why are there games?", but in the course of a constructivist-anthropological examination, it seems adequate to address the act of playing as a prerequisite for the existence of games more directly.

play games?' by drawing on desirable effects resulting from playing games; instead, this thesis' focus will be on motivations of play which are immanent to the play experience itself: how does play prove beneficial and purposeful even if these benefits and purposes are *limited to* the experience of playing?

Framed by these two perspectives, the research question 'why do people play games?' promises to make tangible various aspects of games and play, which will form the cornerstones of this project and provide its structure.

The structure of this thesis

In the first part of this thesis, after outlining the basic constructivist concepts necessary to conduct this study, the basic presuppositions for its conduct will be discussed. In an attempt to find a viable framework for the discussion of the 'play experience' rather than to provide final answers, this framework will consist of three 'constructions' - attempts to examine and reassess central issues of the game studies discourse from a constructivist perspective.

The first of these constructions will give attention to the relation of games and reality, examining the conditions under which a game's rules - even if they are regarded as artificial by players - can be appraised as guiding factors for players' actions and decisions, and therefore enable satisfying experiences. When playing a game, players seem determined to solve problems they wouldn't have without playing the game in the first place, a determination which can not be accounted for by the relevance of these problems for the players' lifes outside the game. Instead, the construction will focus on the possible transitions be-

tween the terms and conditions specified by the game, and the 'realization' of these rules' implications as guiding factors for players' desires and interactions.

The second construction will examine the idea of 'play' more closely, and the way this concept is defined in the game studies discourse; it will be argued that today's discussions of play and games are dominated by definitions of play that employ a delineating conception of play, based on the differentiation between 'play' and 'non-play'. While this dualist conception is useful in regard to some aspects of play, it will be shown that there are problems arising from the assessment of play and games that can not be made tangible by this differentiation. As an alternate approach, the chapter will draw upon the conception of 'mechanical play', and attempt to adapt it as a theoretical perspective for the game studies discourse. Based on Friedrich Schiller's so-called 'play theory', it will be argued that this mechanical idea of play as an intermediating principle between opposing forces may provide a definition more viable for addressing play experiences than prevalent delineating conceptions. In order to discuss its implications for the assessment of games and play, the idea of play as an intermediating force will be applied to three different issues relevant to the field of game studies, namely the analysis of games, the design of games and the relation of games and violence.

The third and final construction will address methodical issues arising from the specific nature of digital games as rule-based systems and their interrelation with player interactions, highlighting the relation of games and narratives. While the idea of emergent narratives, which arise from the interaction with the game world and are highly dependent on players' interpretations - has become

a widely acknowledged part of digital game theory[22], it easily meets its limits when it comes to a methodical assessment of the resulting experiences. Contrary to traditional media, whose storytelling capabilities rely on the use of representational strategies, digital games do not simply present a representational narrative which can be unraveled and, consequently, interpreted by their players. In a recursive process of evaluation, action, feedback, re-evaluation and variation, it is the players' interpretations of the game world which in turn influence their gameplay decisions and, therefore, the manifestations of gameplay events. In striking analogy to constructivist models of reality construction, this recursive process is determined not only by the already versatile possibilities of the game, but by their combination with a seemingly infinite variety of possible player interpretations. The assessment of play experiences, therefore, can not approach the emergence of these experiences as mere results of represented events embedded within the game, but has to take this multitude of individual player interpretations into account. An attempt to make the contingency spaces of experience opened up by digital games tangible for methodical analysis must therefore account for the multitude of possible player interpretations, while at the same time avoiding to dissolve into arbitrariness by, still tracing the resulting experiences back to the terms and conditions presented by the game. The second construction will discuss a possible strategy to fulfill these requirements on the example of a specific gameplay segment of the XBOX game *Dead Rising (Capcom, 2006)*.

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22 see: Jenkins, Henry.: "Game Design as Narrative Architecture", in: Wardrip-Fruin, Noah; Harrigan, Pat: "First Person - New Media as Story, Performance, and Game", MIT Press, Cambridge, M.A., 2004, p. 118-130.

After the first part of this thesis has set the stage for an assessment of the 'play experience' by approaching principle matters of play and games from a constructivist perspective, the second part will shift the focus more specifically on mediated experiences and the role digital games can play in the process of constructing these experiences. The second part will consist of three case studies, which serve to highlight different aspects of this process, and together will stake out the definitory framework constituting the concept of 'experience' underlying this thesis.

Following the distinction between first order and second order realities[23], the first case study will attempt to break down the construction of experiences in what will be called 'experiential set up' and 'experiential perspective'. These concepts mark the difference between the subsumption of certain elements and their relation as 'events' on the one hand ('experiential set up'), and the evaluation and interpretation of these events through the application of values and beliefs ('experiential perspective') on the other. In a comparison of the mediated events surrounding the attacks on the world trade center at september 11th 2001 and the narrative structure of the hollywood movie *Independence Day* (20th Century Fox, 1996), it will be shown how a largely similar experiential set up can suggest very different experiences once a certain experiential perspective is applied. This distinction will serve as a conceptional tool to make the interplay between media strategies and the construction of (play) experiences more tangible.

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23 see: Watzlawick, Paul: "Wirklichkeitsanpassung oder angepaßte "Wirklichkeit"? Konstruktivismus und Pychotherapie", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 89-107.

In order to enable a closer look at this relation, the second case study will examine a well-established experiential topos of western culture, which is also a recurring motive in digital games, namely the contemporary zombie topos, which has gained shaped since George A. Romero's adaptation of the traditional zombie theme. Based on an assessment of the 'horror experience', which will be argued as a central experiential theme in contemporary culture, it will be shown that the contemporary zombie topos enables this experience not merely on a fictional level, but that it is the experiential set up of the topos itself which incorporates the idea of 'horror as isolation', which will be argued as central to the 'horror experience'.

This assessment of the experiential set up of the contemporary zombie topos will tie together the second and third case study in an attempt to develop a viable understanding of the interplay of experiential set up and the contingency field of experiences opened up by the application of experiential perspectives. Even though the zombie topos is central to popular culture and the fictional arsenal of digital games alike, there is no example for the topos in digital roleplaying games or, more specifically, Massive Multiplayer Online Roleplaying Games (MMORPGs). In the third case study, it will be argued that this absence can be accounted for the specific experiential set up constituted by the rules and mechanics employed in MMORPGs, which suggest experiences quite contrary to those of 'horror'. These specific rules and mechanics will be clarified in comparison to the rules and mechanics common in another game genre, the 'Survival Horror Game', which are much more consistent with the idea of 'horror as isolation'. On the specific example of 'game inventory' in both game types, the case study will try to show how contingency fields of experience are opened up or neglected by the specific form by which an experiential set up constitutes

opportunities and obstacles for the construction of experiences, and intends to show how the construction of play experiences, while highly dependent on individual player interpretations, is nonetheless related to the terms and conditions determined by the experiential set up of the game's rules and mechanics.

Finally, after the basic concepts of 'play' and 'experience' have been clarified from a constructivist perspective, the third part of the thesis will address the research question 'why do people play games' more directly by attempting a thorough examination of the 'play experience' itself. It will be argued that the notion of 'adaptive advantages' arising from play as a training ground for later real life adaptation does not provide viable answers neither in regard to the conception of 'play' constituting the games studies discourse, nor in regard to the constructivist and therefore player-centered approach to the 'play experience' underlying this thesis. Instead, it will be asked how play experiences may be desirable due to features inherent to this play experience rather than ascribing the desirable qualities of play to expected beneficial effects resulting from this experience.

In an attempt to provide a viable concept underlying these inherently seductive capabilities of play, the concept of 'fun' as the basic motivation for playing games will be argued to be too general an assumption, and will be dismissed in favor of a discussion of 'satisfaction' as a key element of play experiences, a concept which will be shown to be related to constructivist considerations on the human desire to solve problems and, therefore, the willingness to construct problems in order to do so.

Based on this idea of pleasure and satisfaction as an inherent factor of play experiences, the research question will be examined in regard to the specific qualities of play, qualities that will be argued to allow for a mode of constructing experiences that enables an emergence of satisfaction by being consistent with the most intuitive processes of reality construction. In order to do so, and employing a constructivist-anthropological perspective, a model of experience will be developed, a model which highlights experiences of play as manifestations of an inherently human trait, which will be labeled as 'system experience'. It will be argued that experiences of play enable the organization of perceptions in systemic terms without reservation, thereby allowing for an explorative attitude, which is close to intuitive cognitive processes, contrary to the truncation of experiential systems for a 'higher purpose'.

This model of 'system experience as an inherently human trait' aims to provide a viable answer to the research question 'why do people play games?' by approaching the 'play experience' as a unique manifestation of cognitive construction processes. The 'play experience' will be shown to consist in the freedom to explore a specific experiential system and its assumed functionalities by assessing actions and their consequences *within the system*, contrary to an experience heeding the consequences actions might have outside the system. While this 'play experience' is counteracted in everyday life by ideas of pragmatism, efficiency or societal demands, it enables an emergence of satisfaction that might account for the pleasure inherent to play. This quality to enable satisfying experiences *within* an experiential system will be suggested as a possible answer to the research question 'why do people play games?', an answer which conforms with the definitory demands of the game studies discourse, and is consistent with the constructivist-anthropological perspective this thesis attempts to apply.

Part 1:

Constructivist Game Studies

"What you see is what you get"
(Flip 'Geraldine' Wilson)[24]

1.1 The Constructivist Game Scholar's Toolbox

1.1.1 Contingency as a key concept

The concept of radical constructivism, as formulated by Ernst von Glasersfeld[25], gives up the idea that we can rely on our perceptions to positivistically portray an ontological reality in favor of an instrumentalist approach to knowledge: whatever we perceive to be real has to be the basis for our quest for knowledge, and knowledge can only provide viable ways to make sense of these perceptions. Following Glasersfeld's conception, we can not know that there is a force such as gravity; we can only know that we perceive objects falling to the ground in a certain manner, and we have developed the concept of gravity as a viable explanation. This key idea of viability is closely connected to the concept of contingency: as our perceptions can at best be regarded as symptoms, not as depic-

[24] *Flip (The Flip Wilson Show*, NBC, 1970-74)

25 see: Glasersfeld, Ernst von: "Radical Constructivism: A Way of Knowing and Learning", The Falmer Press, London/Washington D.C., 1995.

tions, of an external reality, they can allow for a multitude of viable explanations (just like a running nose can be a symptom for a cold as well as an allergy).

While constructivist theory has found its way into many fields of research, it promises to be especially rewarding to approach computer games from a constructivist perspective. Contrary to more traditional media, computer games do not conceal their contingent character. In contemporary computer games, there is not one way to play the game, but a multitude of viable options to interact with complex sets of the game's possibilities and restraints. This makes it especially hard to analytically approach player experience, as the game itself only provides a contingency field of possible of gameplay events, not a stringent course. Giving up the idea of 'absolute truths' in favor of contingencies, however, is at the core of constructivism or, more sprecifically, of radical constructivist epistemology.

1.1.2 Constructivism as a long-range theory: Epistemology

Perception and Reality

The core of constructivist theory could be described as a specific answer to the question: 'How do we know what we think to know is real?'. The basic ontological question whether there is an objective reality that persists apart from our perception, or if what we call realities is no more than constructs of our imagination has historically been answered in a broad range from what usually is described as the antagony of realism and idealism. While realists assume that an

objective reality exists (and that it must therefore be the aim of any kind of research to get to a better understanding of this reality), idealists reject this presumption of an external reality in favor of an understanding of realities as internal constructs of our minds, an approach culminating in tendencies of solipcism, the idea that all perception is just an effect of imagination[26].

This ongoing debate has its roots in the tradition of scepticism, which argues that whatever we think to know about "reality" can only be derived from what we sensually perceive; but in order to know whether and when our senses deceive us, we would need to check our perceptions with the things percepted, which is not possible, as these "realities" are not accessible apart from our sensations. According to the scepticist argument, external reality - if it exists - may not be perceived as it is, making any attempt to make conclusive assertions about this reality futile.

This (methodical) paradox presents a real challenge for scientific enterprises: what use can any kind of science, any kind of research be, if whatever answers we find, whatever hypothesis we think to prove are dependent on the unprovable reliability of our perception, and thereby not rooted in knowledge, but in faith[27]?

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26 see: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005.

27 For a critical discussion of (early) constructivist theory and rationalism see: Abel, Bodo: "Grundlagen der Erklärung menschlichen Handelns - Zur Kontroverse zwischen Konstruktivisten und Kritischen Rationalisten", Mohr, Tübingen, 1983.

In regard to ontological questions, the sceptical argument has so far presented an impregnable dilemma. If science claims to be legitimated only by standards of truth, science has to be illegitimate. So, why make this claim?

Instrumentalism: Models of Understanding

In reaction to this dilemma, constructivism represent a different appoach. While there may be no way to check our knowledge for its consistency with ontological reality, there may still be other criteria for the quality of our findings. There may not be an external reality, or if there is, we may not be able to perceive it as it is. But whatever we experience as real gives rise to what we experience as problems; the quality of our knowledge may, therefore, be measured by its ability to provide steps towards what we experience as solutions.
As a consequence, the merit of science does not lie in generating models of explanation, but in models of understanding, the question not being "what is this thing?", but rather, "how can I understand this thing?". Models of understanding do not claim to represent truth, as the range of these models is limited by their "ontical noncommitment"[28]. They claim to make phenomena understandable "as if" they were represented by the model, rather than "as what" they really are[29]. This is why constructivist theorists are so insistent of constructivism

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28 see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 402.

29 comp.: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, esp. p. 13.

being an epistemological rather than ontological approach[30], as it focusses on our ability to know and understand rather than on the "nature of things". From a constructivist perspective, the focus of research must lie on what is called "cognitive realities" rather than ontical reality: how do we (as individuals and as societies) construct what we believe to be true in order to confront our perceptions of "the real"?

This does not mean that scientific explanation becomes coincidental or arbitrary. While there may be a whole set of conflicting models of what we perceive to be the same phenomena, the merit of any hypothesis or model is measured by its functionality in a socio-epistemological context. Does what we think to know prove to be a sustainable hypothesis when dealing with what we experience, and the phenomena we define as a result of these experiences?

The sustainability of these sets of knowledge is not defined by concepts of truth, but by the concept of viability.

Viability

In order to distinguish the idea of knowledge in terms of viability from the idea of knowledge being an analogous representation or reality, Glasersfeld employs the image of a blind wayfarer crossing a forest day after day[31]. There may be

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30 see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 402-404.

31 see: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, esp. p. 19.

many possible ways that lead through the forest, and in time, the wayfarer will have constructed a certain image of the forest according to the various paths that have led him through the woods and those that turned out to be dead ends. The actual forest - representing the concept of external reality in the metaphor - does not reveal itself, the wayfarer does not learn anything about the trees and rocks themselves, they merely represent obstacles, regulations for the empirical perception of the viability of certain paths.
The experience of the forest does not contain trees or rocks, it can only contain the spaces in between, up to the point where the space is externally limited by these obstacles.

While philosophical tradition has for a long time shared the common idea of knowledge being an analoguous representation of reality, the concept of viability is based on the functionality of an explanation in regard to our perceptions.

As an epistemological concept, the notion of viability allows for different, even contradictory models of understanding, as long as they are not intended to represent a truthful explanation of the phenomena experienced. The criterion for the quality of models of understanding is not how 'true' they are, but their capability to withstand experience. This implies the limited range of any viable model, as experience itself is limited to presuppositions of an observer, whose perceptions are already pre-defined by a certain observing situation in a specific socio-cultural context.

1.1.3 Constructivism as a mid-range theory: Societies

Realities as a social construct

While constructivism abandons the concept of truth in favor of the idea of viability, it does not give up the possibility of knowledge by resiliating to the epistemological hopelessness of solipcism. But knowledge is no longer understood as something that can be acquired in regard to an object of research and tested against this objects features; instead, knowledge itself is a social construction, resulting from processes of communication [32] and negotiation in order to develop answers that enable successful operation within a social context.[33]

These negotiatory processes take place on two different, if related, levels. For one, definitory agreements in a specific context lead to categories in which observations can be made and negotiated. In order to measure the speed of a car, there must be a definition of the concept "speed" and an agreement how speed is measured, described and communicated.
On another level, on which speed may be subject to judgemental debate, negotiations take place in regard to debates of why a certain speed may be considered too fast or too slow in a specific situation.

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32 This is why Ernst von Glasersfeld insists on communication being a key element in the construction of viable concepts. see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 404-409.

33 This does not mean that social processes aim at the parallelization of conclusive interpretations: conflict and disagreement in regard to a topic are not only common phenomena, they are strategies in processes of parallelization. Disagreement in regard to a certain problem does not need to be resolved in order to establish the problem itself as a social reality.

First order realities

In constructivist theory, these levels are accounted for by the distinction between first and second order realities. Paul Watzlawick employs the example of gold[34]: on a level of first order realities, gold has specific physical properties (weight, density, color). While it is dependent on agreement whether the weight of gold is measured in pounds, kilograms or ounces, the weight itself can be measured by any observer alike with the same results, thereby constituting an empirical base for perception. While this perception is not void of presuppositions (measuring the weight of gold requires the appliance of the concept "weight", not "density"), it can be made regardless of the observers interpretations. First order realities can be referred to as "objective" realities, as long as this refers to the objectivity of specific data deriving from perception based on definitory agreement, not to the objective perception of ontological truth.

Second order realities

Contrary to perceptions on the level of first order realities, the experience of second order realities is dependent on subjective concepts of value. Second order realities cannot be measured, but merely evaluated in regard to a set of values and beliefs; on a social level, they are subject to negotiation.
The symbolical meaning of gold, which legitimates its aesthetical as well as economical value, cannot simply be measured, it is a construction resulting

34 see: Watzlawick, Paul: "Wirklichkeitsanpassung oder angepaßte "Wirklichkeit"? Konstruktivismus und Pychotherapie", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 91f.

from socio-cultural negotiations and agreements, dependent on a specific experiential context. While second order realities are often referred to as "subjective" realities, the extensive influence of social and cultural constructions and negotiations in determining the viability of concepts on this level of reality must be taken into account.

Interdependency of first and second order realities

While the concept of first and second order realities initially requires a distinction, it is important to point out the interdependency between these levels in order to open up for new perspectives. As perceptions on the level of first order realities require definitory agreements, these agreements can be argued to be a result of the construction of second order realities, just as second order realities are constructed in reaction to perceptions of first order realities: the decision to agree on terms of measuring the weight of gold derives from a presupposition that information about physical properties of materials is valued information, just as the experience of worth ascribed to gold derives from the perception that gold is not a common material, a perception on the level of first order reality.
The alternate negotiation of second order realities and the agreements presupposing the perception of first order realities may therefore themselves be argued to result from processes of social constructions.

Constructivist theory is inevitably social theory. As the construction of cognitive realities relies on processes of communication, all knowledge arises from the social context it is generated in. Any kind of constructivist science, no matter in what field of research it is employed, needs to be aware of the social context it takes place in in order to uphold the viability of its findings.

1.1.4 Constructivism as a low-range theory: digital games as constructed realities

Once the assumption is made that knowledge is only possible as the result of (social) processes of construction on an epistemological level, the constructedness of cognitive realities must further be employed for any subsequent level of theorization: constructivist epistemology also demands for constructivist conceptualization in regard to societies and processes of socialization (mid-range theories), and finally in regard to any particular phenomena to be examined (low-range theories).
But even without the assumption of constructivist epistemology and the subsequent application of constructivist conceptions as a mid-range theory, the assessment of (digital) games can draw on constructivist theory.
When it comes to understanding the experience of computer games from a player-centered approach, constructivist theory provides viable perspectives even if it is limited to its use as a low-range theory.

A key argument for this thesis lies in the specific situation of players confronted with a computer game. When in the following I will try to identify the computer games' equivalent to what has been discussed in terms of external, first order and second order realities, this identification will itself be an auxiliary construction, an instrumentalist model of understanding that will hopefully prove viable in the course of this project. What I hope to achieve by this model is a better understanding of the processes framing the experience of players engaged in a game.

Confronted with digital games, players usually do not perceive or experience the game's code (the way game developers and some scholars do), but the possibilities and limitations this code provides, experiencing the resulting game mechanics as paths between viable options and non-viable restraints. If the game world is to be described as a virtual reality, the virtual equivalent of external reality would be this code, in its property of being perceptible only through the operational possibilities it provides or hinders.

These possibilities, the rules that are inscribed into the game, and the variety of possible gameplay decisions, is perceived analoguous to first order realities: every player has the same possibilities in the game, and is limited in the same regards, once there is an initial agreement on the terms under which these possibilities are measured: these terms include specific hadware demands, a basic understanding of computer interfaces, and the idea that the game world is approached in terms of playing a game. The number of viable gameplay possibilities may be numerous or even infinite, but the framework provided by the game's mechanics is the same for every player.

While the potential gameplay possibilities provided by the game mechanics are the same for every player, specific gameplay decisions are not. The operation within the game's limits is dependent on the players values and beliefs, intertwined with interpretations of the events provided by and executed in the game. Equivalent to the construction of second order realities, players may decide whether they accept the games goals as their own, whether they accept the challenges provided by the game and accept some gameplay decisions as viable options, while disregarding others.

The experience of the game world as a construction of second order realities becomes a presupposition of the perception of the game mechanics as first order realities: the operative perception of game mechanics as first order realities is dependent on the players interpretation of possible courses in order to try them out.

In the following chapter I will try to experimentally apply these basic constructivist concepts as a model of understanding to three different aspects of computer game studies. These aspects, which again can be regarded as 'constructions' deriving from agreements, definitions and practices of the discipline, will be discussed from a constructivist perspective a in order to provide viable answers for the further assessment of games and play.

First, the problem of 'games and reality' will be addressed: while it is generally accepted that players know that the games they are playing present staged and artificial experiences, the immersion in these 'virtual worlds' is easily taken 'for real', and the experience of success or failure they provide can satisfy needs and desires that seem anything but virtual. This relation between experiences 'taken for real' and perceptions deriving from a 'game world' that presents itself only by enabling or hindering successful operation will be assessed in a first 'construction', which reflects an epistemological level of constructivist theory.

Second, the question of 'play' and its definitions in the academic discipline of game studies will be discussed. Based on the assumption that any academic discipline constitutes itself by defining its object of research, thereby 'constructing' the reality it sets out to assess even before it is analytically approached, this second 'construction' will focus on the idea of 'play' as an opposite of 'non

play', as it is central to historical theories of play and games. The viability of this discriminating conception of play will be questioned, and an alternative model will be suggested. The second 'construction', therefore, addresses the implications of constructivist theory as a mid-range theory, highlighting the social constructedness of academic definitions and re-assessing central assumptions in order to propose alternative (and, hopefully, more viable) definitions.

Finally, the basic problem of contingent player experiences will be the focus of a third construction. The relation between games and narrative will serve as a starting point to suggest a methodology which accounts for the multitude of possible player experiences, without dissolving into arbitrariness by neglecting the game artifact as a base for the construction of these experiences. The third 'construction', therefore, employs constructivist concepts as a low-range theory by focussing on the specific construction of play experiences in computer games.

1.2 First construction: Rules and Reality

"Is all that we see or seem
But a dream within a dream?"
(Edgar Allan Poe)[35]

The first construction will focus on rules as a defining trait of computer games and discuss how satisfying experiences depend upon the reality status of a game's rules. It will be argued that the acceptance of these rules as a guiding factor for players' choices is a relevant factor for the game's reality status and therefore a prerequisite for satisfying gameplay experiences.

1.2.1 Reality status of games: representation, interaction and rules

Computer games make the promise to enable satisfying experiences for their players. In order to keep that promise they have to be accepted as real by players to a certain degree; according to Frijda's law of apparent reality "emotions are elicited by events appraised as real, and their intensity corresponds to the degree to which this is the case."[36]

But how 'real' are games? Are games part of what we think of as reality, or what about them is considered real? And how real do they have to appear in order to enable satisfying gameplay experiences?

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[35] Poe, Edgar Allan: "A Dream Within a Dream", in: Poe, Edgar Allan; O'Neill, Edward H. (Ed.): "The Complete Tales and Poems of Edgar Allan Poe", Dorset Press, New York, N.Y., 1989, p. 24f.

36 Frijda, Nico H.: "The Laws of Emotion", in: American Psychologist, Vol. 43, No. 5, p. 352.

Game scholar Jesper Juul has a valid point when he states that games are half-real, because while the dragon I fight in the gamecontext is not real, the rules of the game are (or simply put: because I am 'really playing a game')[37]. But the apparent reality of games doesn't stop here.

While players do know that they are playing a game, at some point the player is able to ignore the fact that the dragon is not real. But accepting the importance of victory and the presence of a dragon as a reality is not only important when playing a game, it is a phenomenon thoroughly discussed in regard to traditional media as the "willing suspension of disbelief". Looking for the specific ways in which games can be accepted as 'real', and how this distinguishes them from traditional media, is not a simple task. The difference cannot be described in terms of active versus passive reception alone, as even in traditional media, suspension of disbelief requires recipients to actively exercise creative efforts, as Janet Murray points out:

> "As the literary theorists known as the "reader response"school have long argued, the act of reading is far from passive; we construct alternate narratives as we go along, we cast actors or people we know in the roles of the characters, we perform the voices of the characters in our heads, we adjust the emphasis of the story to suit our interests, and we assemble the story into the cognitive schemata that make up our own systems of knowledge and belief. Similarly when we watch a movie, we take the separate spaces of the various sets and merge them into a continuous space that exists only in our own minds."[38]

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37 see: Juul, Jesper: "Half-Real. Video Games between Real Rules and Fictional Worlds", The MIT Press, Cambridge, M.A., 2005.

38 Murray, Janet: "Hamlet on the Holodeck", The MIT Press, Cambridge, M.A., 1998, p. 110.

Belief (or 'suspension of disbelief') does not require proof that the narrated events are real; it does require the absence of proof that they are not. This is why we can accept the absence of certain parts of a fictional space which are not explicitly shown in a movie: the camera doesn't point in their direction, but they might still be there. As a technical convention we have accepted that someone else determines the camera's angle, and we don't grow suspicious if there are certain things that are not shown to us.

This convention does not apply to interactive media: interactive media let us interact with virtual objects, they let us turn the camera ourselves, and we expect to find something there that confirms our idea of the represented world. Murray employs the example of a virtual telephone, part of an interactive learning environmet, to show how interaction can lead to acceptance of virtual objects as real:

> "...we included a working telephone, represented by a photograph of a phone whose keypad could be clicked on. Students found the phone in an apartment they were free to explore by stepping through a photographed space. Near the phone were the numbers of people they had been motivated to telephone by the plot of the story (and whose answering machines they reached when they called). If they punched in a number outside the game, they heard the authentic out-of-service message used in Paris. The story was mostly told in well-directed video segments, which the students also found enjoyable, but the telephone was one of the most popular features of the story. This was because it behaved as a functional virtual object and because it became part of the accomplishment of a specific goal. In short, it became real through use."[39]

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39 Murray, Janet: "Hamlet on the Holodeck", The MIT Press, Cambridge, M.A., 1998, p. 111.

Interaction is a way to test the boundaries of virtual environments: do the elements of the world 'work' as I expect them to do when I interact with them, or do I end up looking behind the scenes, realizing that the world is fake, a staged scenario just pretending to be real. Does the world become "real through use", or do I get proof that it is only make-believe?

While the option of testing a world by interacting with it marks a difference between traditional and interactive media, it still doesn't account for computer games as a specific form of interactive media. If we consider games as rule-based systems, it is not enough to examine how certain elements represented in the game world can be accepted as 'real'. Instead, it is the idea of 'rules' that needs to be investigated. While representational elements have to withstand interaction in order to be accepted as real, rules are intended to guide the way we interact with the system in the first place. How can these rules become accepted as real enough to become a guiding factor for our choices?

In this chapter, I will attempt a discussion of the concept of 'rules' and the acceptance of these rules as 'real enough' to become a guiding factor for the choices players make in a game.

1.2.2 What is 'real'?

In this context, this is not to be read as a metaphysical question. Instead, the question of reality has to be asked in regard to perception and experience[40].
What do we regard to be real, and what's the concept to be put in opposition to the experience of reality?

Something is considered to be 'real' if one assesses it in terms of "it is" instead of "it could be" (terms of "it is not" actually correspond to the "it is" category, as it is perceived as reality that the thing "is not"; this does change the value assigned to the thing, but not the status of perceived reality of the assigned value). The acceptance of something as 'real' requires some kind of "realization" first, a mental change leading to a state where something is regarded in factual terms. I might learn that "X is a nice person", a notion I didn't have before I met X. Or I might realize that there's a movie called "Movie", which I didn't know before I stumbled upon the title on the Internet Movie Database[41].

Reality, conviction and the proof of truth

But what are the necessary factors for realization in terms of mental changes?
In terms of an experiential rather than metaphysical discussion, this is a question of belief. In the example of X being a nice person, I will hardly ever find absolute proof that X is "nice". First of all, my idea of "nice" will be subjective, not

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40 This is not to imply the accuracy or in-accuracy of "perception" in regard to the thing perceived. The focus is on the assessment of perception and experience rather than on the possibility of gathering data about an outside world.

41 http://www.imdb.com/title/tt1040023/

absolute. Secondly, I will base my evaluation of X's character on my individual experiences, and the assumptions resulting from these experiences.

These assumptions are not arbitrary, but according to constructivist theory[42] result from the viability of previous evaluations on the one hand, and from social negotiations on the other; they arise from a set of values and beliefs, which are again based on social constructions. These values and beliefs are dynamically constructed through processes of communication in order to enable operation within a social context[43].

While these processes of evaluation could lead this chapter into a whole new direction, what's important is that the concept of "realization" does not refer to the "truth" of the thing perceived ("is X truly a nice person, in accordance with the individuals idea of "nice"), but about the acceptance of the thing as real. The perceived compatibility with the individual's values and beliefs constitutes the basis for these realizations.

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42 see: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, esp. p. 19.

43 This is why Ernst von Glasersfeld insists on communication being a key element in the construction of viable concepts. see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 404-409.

1.2.3 Rules and Commands

In most games representation plays an important role, but it is their rules which characterize games in comparison to other media. In common understanding, rules 'need to be followed'. But the way rules work is different from the idea of 'commands'.

While commands imply the necessity of obedience, rules merely constitute conditions under which choices can be made, they are conditional criteria. "You must kill the enemy" is not a rule, but a command, as it doesn't consider disobedience. Rules are constituted by "if...then" terms: "*If* you kill the enemy, *then* you win the game" / "*if* you don't kill the enemy, *then* you lose the game"[44]. It is the player's choice what action to take, and while the choice might depend on the desired outcome, thereby making one action more likely to be chosen than another, it is still a choice.

Contrary to commands, rules do not tell the player what she *has* to do. They merely describe the consequences to be expected if certain actions are carried out in order to provide guidelines for the player. They can, however, have a guiding function - "ruling" the players behaviour. But these consequences have to be relevant for the player's actions in order to qualify as guiding factors.

44 While grammatically unusual, the use of "if/then" refers to basic principles of computer programming. The command sequence "if/then/goto" is one of the most basic forms of how programming languages provide a way to enable a system to react to data input.

1.2.4 How to Rule a Kingdom

Rules can be thought of as operating on two different levels, fulfilling different functions on each level. On a first level, certain actions or features[45] of someone or something are linked with specific consequences. If the "subjects" (in case of a game: the players) are able to actively respond to these *specified rules*, and regard them as relevant for their choice of action, this takes place on a second level, which I would like to call the level of *realized rules*.[46]

The distinction between these two levels reflects the distinction between first order and second order realities as it is conceived of in constructivist theory[47]. First order realities refer to constructions of reality whose perception is dependent on agreement in a specific social context. The weight of an item, for example, can be measured by different observers, who will all gather similar readings of data, as long as their measurement is based on a shared concept of weight and an agreement on what they have defined as units of measurement (i.e. kilograms, punds etc.). This level of reality might be called "objective", as

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45 Rules can be specified regarding actions or features alike. As this model is to be applied to game rules (and as game designers are concerned with guiding players actions, not their features) the focus will be on action-centered rules in this chapter.

46 This also slightly corresponds with the distinction between mechanics and dynamics in Marc LeBlanc's MDA model., see: LeBlanc, Marc: "Tools for Creating Dramatic Game Dynamics", in: Salen, Katie / Zimmerman, Eric: "The Game Design Reader - A Rules of Play Anthology", The MIT Press, Cambridge, M.A., 2006, p.438-459. Specified rules are nothing else than a games mechanics. Realized rules, however, are not the same as game dynamics, even if the realization (or non-realization) of rules is what leads to dynamics when the game is played.

47 see: Watzlawick, Paul: "Wirklichkeitsanpassung oder angepaßte "Wirklichkeit"? Konstruktivismus und Psychotherapie", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 91f.

long as it is clear that it doesn't refer to the objectivity of the perception in regard to an external truth, but to the fact that modes of perception have been "objectified" by means of social agreement.

Contrary to perceptions on the level of first order realities, second order realities cannot be measured according to previous and accepted social agreements, but merely evaluated in regard to the individual's set of values and beliefs. On a social level, they are subject to negotiation, not a pre-arranged mode of perception. Second order realities are defined by a judgemental evaluation. While the weight of an item can be measured and perceived by anyone who applies the agreed upon modes of measurements, the item's beauty, its relevance or - more general - its meaning are subject to the individual's set of values and beliefs.

How can this distinction be applied to a game's rules, when the question is how players achieve the transition from "really playing a game" to accepting the game's goals and challenges as factors real enough to enable satisfying experiences?

Specified Rules as 1st order realities: The King's Fancy

On the level of specified rules, according to the idea of first order realities, terms are set which link certain actions to specific consequences. The ruler of a kingdom might, for example, specify that anyone who kills a noble is to be exiled to a faraway island. As mere terms, this does not yet constitute a rule, as long as no consequence concerning the kingdom's subject's behavior is assumed. On this first level, the level of specification, rules serve as an organizing principle. The ruler might simply want to react to the fact that a certain number of his

subjects kills nobles on a regular basis and therefore decide that it may be a good idea to separate these assassins from the rest of the kingdom's inhabitants. If he specifies exilation as a consequence for future assassinations, this will simply mean that from now on assassins will be transferred to the island, while non-assassins will remain in the kingdom.

On this first level of rules, the ruler is not a ruler yet, he's merely an administrator (even when administering his/her own rules), sorting out subjects who fulfill the specification from those who don't and setting a consequence by separating them geographically. It is important to note that specifications on this first level may just as well concern inanimate objects. Specified consequences can be applied to pieces of wood as well as living human beings. The specification may be that dry pieces of wood are put in the cellar, while damp pieces are left in the sun to dry. On the levelof specified rules, whatever the specifications are, and no matter to what or whom they are applied, the idea is not yet to change the subject's behavior, but to react to their current behavior by applying organizing principles.

On the level of specified rules, choice is a factor concerning the ruler, not the ruled. It is the ruler's choice what specifications to set. On this level, it is the king's fancy that those who kill a noble will be living on a faraway island henceforth. It is not yet taken into account how the subjects will react to the specifications, the specifications are merely applied for their own - or the ruler's - sake.

When Cinderella in the fairy tale sorts the bad lentils from the good ones, she, too, simply applies specifications to the lentils: "the good into the pot, the bad

into the crop". Cinderella does not 'rule' the lentils, as the lentils have no choice in how to react to the specifications. The lentils, as well as the king's subjects, are regarded as no more than passive gamepieces on the level of specified rules.

Realized Rules as 2nd order realities: The King's Power

Now, one could argue that in the fairy tale, it is not the lentils that are subject to Cinderella's rule, but Cinderella herself who is subject to the rule of her stepmother. If we examine this part of the fairy tale as an exemplary rule-based system, it becomes clear that the subject of the rule (Cinderella) is indeed following her stepmother's rules in order to get a reward (she'll be allowed to join her stepsisters at the king's festival if she sorts out the lentils). It is her choice whether she does as requested and gets her reward, or ignores the request and stays at home. This takes us to the second level of rules, on which the consequences linked to an action by specification lead to the emergence of rules as a relevant factor for the subject's decisions. I'd like to call this the 'level of realized rules'.

Realized rules require the subject to be actively able to make choices regarding the rules. Cinderella chooses to follow her stepmother's rule. Agency, the ability to deliberately carry out an action or to decide not to, is the precondition for the realization of rules. On the level of realized rules, exiling assassins to a faraway island will most likely be more than the fancy of an obsessive ruler, but an attempt to diminish the assassination of nobles. The function of the rule becomes a change of circumstances. While specified rules require action only on behalf of applying the rule, realized rules aim at the action of the subject in regard to the rule. On this level, rules always open up more than one possible outcome; if a

subject kills a noble, she will be exiled to the island, if she doesn't she'll be allowed to stay in the kingdom.

In order for the rule to have any influence on its subjects' behavior, it is important for the rule to be realized, meaning that the subjects need to make the rule a relevant factor in their decisions. If the specified rule says that everytime a noble is killed, the king will drink a glass of water, it is not to be expected that the rule will have any influence on the killing of nobles. To make choices based on specified rules, the subjects need to know about the rule, and they need to care about the consequence, or the rule will not be realized.

The realization of rules takes place on the level of second order realities, as it requires a personal judgement on the relevance of the rule. Without the subject (or player) relating the specified rule to her own values and believes, the specified rule can be perceived as a fact, but will not be realized as a guiding factor for the subject's / the player's decisions.

1.2.5 Immersive Realization of Rules

Rules can only set the terms in which choices can be made. But as long as a player does not share the values assigned to the game system, these rules have no influence whatsoever on the choices made in the game. While the player can still acknowledge the consequences of the specified rules, and even understand what behaviour they are supposed to elicit, the player's choices will necessarily depend upon other factors than the acceptance of the rules as a guideline.

With this idea of immersion into the logic of the game's rules, the argument comes full circle with the introductory question: what is the relevance of a game's reality status in regard to enabling satisfying gameplay experiences? Only when a specified rule's consequence in the game world is accepted as a relevant consequence for the player's actual desires is the player able to immerse into the game world. This is why I would suggest calling this kind of realization "immersive realization of rules".

If it is necessary for players to accept the game rules' consequences as factors for the fulfillment or limitation of their actual desires in order to immerse players into the game, does that mean that the rewards and punishments of successful games need to be considered as such outside the game world's context? Does there have to be a gain on the player's bank account if she wins the game? Is it necessary to beat her with a stick if she loses?

It would be, if immersion started with the consequences of the game's rules. But immersive realization begins at the players' end, with the desire to fulfill their needs. The player may feel the need to prove herself, without experiencing the possibility to do so outside the game. Defeating a Dragon in the game world may be a good chance to be a hero and to enable the experience of accomplishment.

While the specified rules just specify what happens if the dragon is defeated, and what happens if he's not, the player needs to accept the defeat as a real achievement in order to fulfill her need for accomplishment. But accomplishment can only be experienced if the player decides to forget that she's just play-

ing a game. Heroes are not known to excel at that[48]. The experience of reality is not an effect of immersion[49], it is a precondition for the immersive benefits desired by the player. Janet Murray states:

> "We do not suspend disbelief so much as we actively create belief. Because of our desire to experience immersion, we focus our attention on the enveloping world and we use our intelligence to reinforce rather than to question the reality of the experience."[50]

If the experience of immersion is desired by the player, the acceptance of the game's rules 'as real' is a necessary precondition to achieve this goal. Without this acceptance, the game's goals may still be reached, but it is the player's goals that make her play the game and guide her choices.

Digital gameworlds have continuously become more complex, more appealing and more convincing over the last decade, and they will most probably continue to do so. While this makes it easier to accept them as real, it doesn't make it necessary. It's necessary because a game, whatever its benefits may be, consists of two sides: the game world, its rules, its fictions and its challenges on one side, and the player, her values and beliefs and her desire for satisfying experi-

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48 Or are they? Heroes are winners of games, even if these games can be deadly serious. But this might lead too far in the context of this chapter.

49 The idea of immersion as a phenomenon dependent on media strategies, luring players (or recipients in general) into a state where the they grant the experience a status of reality, is a common notion in scholarly discussions of games and media. cf. Ryan, Marie-Laure: "Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media", The Johns Hopkins University Press, Baltimore, M.D., 2003, esp. p. 90 and p. 106-110; McMahan: "Immersion, Engagement, and Presence - A Method for Analyzing 3-D Video Games", in: Wolf, J.P. Mark / Perron, Bernard (eds.): "The Video Game Theory Reader", Routledge, New York & London, 2003, p. 67-68.

50 Murray, Janet: "Hamlet on the Holodeck", The MIT Press, Cambridge, M.A., 1998, p. 110.

ences on the other. Only by granting recognition to the game world as a reality, players can sustain a system they are part of, a system they expect to recognize themselves in exchange.

1.2.6 Conclusion: the 'Reality of Games'

While this chapter does not intend to address the question of reality in a metaphysical sense, it can be argued that games can be experienced 'as real' by the player.

The game's rules even need to be accepted as real to some extent before they can fulfill the player's desire for satisfactory experiences.

Rules can be understood as the specification of consequences, but they will only become realized as rules guiding players behavior if these consequences are experienced as relevant for players.

These two dimensions of rules have been traced to a point at which it becomes plausible that it may be in the player's interest that the game is experienced as real; only then will it become a potential tool for adressing their desire for satisfying experiences.

So, if there is a general rule that applies *to* games rather than *in* games, it might be specified like this: "IF you accept the game as real THEN playing the game can be a satisfying experience."

As a result, it does not make sense to seek out the factors for experienced reality in the nature of games alone. If anything, the questions that need to be asked must aim at the constitution of the player and her quest for satisfaction, and therefore at the human condition in general.

1.3 Second Construction: Play Definitions

"It ain't necessarily so"
(*Porgy and Bess*)[51]

The second construction examines the persistence of delineating, dualistic concepts of play, which are rooted in historical play theories, but are still common in contemporary game studies discourses. The alternative of a mediating concept of play will be discussed, and experimentally applied to different areas of the field of game studies.

1.3.1 Delineating concepts of play

The idea of games as 'something completely different', detached from the 'rest of life', is not only dominant in public and medial discourses, it is also a persistent motif in the game studies discourse. Delimiting concepts of play and games, trying to distinguish games from non-games and play from non-play, are the cornerstone of essential historic game theories. Theoretical considerations in today's field of game studies are mainly iterations of the basic assumption that 'games' and 'play' need to be positivistically defined and thereby distinguished from phenomena that are not to be regarded as play or game.

In the following chapter I will show the persistence of delineating concepts of 'play' in historic play theories. The texts I will focus on still fuel today's game

[51] *Porgy and Bess* (Gershwin, George; Gershwin, Ira; Heyward, E. DuBose/Theatre Guild New York, 1935)

studies discourse when it comes to questions of play; questions that can hardly be seperated from those regarding games, as Katie Salen and Eric Zimmerman state:

> "Games create play: of that there is no doubt. But there is much more to the relationship, as four texts from Johan Huizinga, Roger Caillois, Gregory Bateson, and Brian Sutton-Smith point out."[52]

It is these four texts which will provide the base for the following argument on delineating concepts of play. While this delineating character is easily identified in the theories of Caillois and Bateson, Johan Huizinga's approach will need a much closer look to identify his underlying conception of play. A discussion of these texts will show that today's game studies discourse regarding ideas of 'play' is at its core affected by definitions which presume a certitude about what play 'is' (and what it is not) - a certitude that is not necessarily fit to address the problems of contemporary game studies. Sutton-Smith's text on 'The Ambiguity of Play' will be employed to examine this problem more closely.

As an alternative approach, I will discuss the possibility of a mediating concept of play, which I will identify as a key concept underlying Friedrich Schiller's 'play-theory'. This concept of mediating play will be traced back to mechanical metaphors and the mechanical concepts of play, error and tolerance. While it will be shown that a mechanical idea of play is not completely absent in contemporary theories of play and games, it is scarcely made use of in the assessment of contemporary problems in the field of game studies.

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52 Salen, Katie; Zimmerman, Eric: "What is Play?", in: Salen, Katie; Zimmerman, Eric: "The Game Design Reader: a rules of play anthology", MIT Press, Cambridge, M.A., 2006, p. 83.

I will therefore discuss how this mediating concept of play might be more viable than delineating concepts in addressing the challenges of today's game studies, exemplified by three examples: the analysis of games, the design of games and the relation of games and violence.

Johan Huizinga

It seems obvious that any theoretical focus on 'games' and 'play' calls for a positivistic definition of these phenomena, thereby leading to delineating concepts, asking 'what is play, and when does it become serious? What is a game, and where is the border between games and real life?'. These are the questions Johan Huizinga addresses at the beginning of his treatise "Homo Ludens. A Study of the Play-Element in Culture"[53], first published in 1938. It is, however, noteworthy that his initial answer to these questions is the suggestion that the opposition between 'play' and 'seriousness' may be an unsustainable assumption:

> "In our way of thinking, play is the direct opposite of seriousness. At first sight this opposition seems as irreducible to other categories as the play-concept itself. Examined more closely, however, the contrast between play and seriousness proves to be neither conclusive nor fixed. We can say: play is non-seriousness. But apart from the fact that this proposition tells us nothing about the positive qualities of play, it is extraordinarily easy to refute. As soon as we proceed from 'play is non-seriousness' to 'play is not serious', the contrast leaves us in the lurch - for some play can be very serious indeed."[54]

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53 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955.

54 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 5.

But while Huizinga tries to dissolve the opposition between the 'fun' of playing and the 'seriousness' of life, this does in no way mean that his conception of 'play' relinquishes the idea of delineating the concept from its opposite. What exactly this opposite is, however, and what it means for his definition of play can not be pointed out without clarifying the structure of his argument - and, from a contemporary perspective, its shortcomings.

The main problem in identifying Huizinga's perspective arises from the lack of clarification when it comes to the difference between 'play' and 'games'. In the english edition of the text, Huizinga addresses the semantic difference between the terms, but without drawing conceptual conclusions: while this difference is not mentioned at all in the german edition[55], the english edition treats it as a dismissable exception of the 'rule' that the compliance of verb and noun hints to the peculiarity of the phenomenon of play: "To some extent this is lost in English by the doublet *play* and *game*. Nevertheless the fact remains that in order to express the nature of the activity the idea contained in the noun must be repeated in the verb."[56] For Huizinga, there is no conceptional difference between the act of playing and the artifact related to this activity. This would not really be a problem if the unclarity remained on a semantical level: an emphasis on the 'freedom' of play combined with a conception of games as areas of freedom could provide a consistent base for his study. But this is not the conception

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55 Huizinga, Johan: "Homo Ludens. Vom Ursprung der Kultur im Spiel", Rowohlt, Reinbeck bei Hamburg, 2004, p. 48.

56 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 37.

Huizinga employs, which begins to show even in his initial discussion of the 'nature and significance of play':

> "First and foremost, then, play is a voluntary activity. Play to order is no longer play: it could at best be but a forcible imitation of it. By this quality of freedom alone, play marks itself off from the course of the natural process. [...] Play is superfluous. The need for it is only urgent to the extent that the enjoyment of it makes it a need. Play can be deferred or suspended at any time [...]Here, then, we have the first main characteristic of play: that it is free, is in fact freedom."[57]

While this conception clearly emphasizes the 'freedom' of play as a defining characteristic, and may well remain uncontradicted as a definition of the mere activity of play, it breaks down when, only a few pages further, the summarization of characteristics of play aims to incorporate the idea of rules and restrictions, which might better suit a definition of 'games' than one of 'play as an activity':

> "Summing up the formal characteristics of play we might call it a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner." [58]

Contrary to the prior assertion that 'play to order is no longer play', the 'free activity' of play now proceeds "according to fixed rules and in an orderly man-

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57 Huizinga, Johan: Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 8.

58 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 13.

ner" - thereby employing a characteristic of *games* as a defining aspect of *play*, and consequently negating the difference between the two concepts. Correspondingly, the summarization emphasizes the idea of play as being 'not serious', an idea which Huizinga has earlier dismissed as pointless for a definition of play - a dismissal which can be argued for the idea of 'play' rather than the idea of 'games', as the idea of "sacred earnest"[59] does not so much conform with the idea of 'play as a free activity', but is instead related to the acceptance of artificial limitations, which seems much closer to the idea of the restrictions provided by 'games'.

The ambiguity of Huizinga's definitions arises from a commingling of concepts of 'play' and 'games', which persists through his examinations. While this makes his initial definitions too elusive for a clear-cut evaluation, Huizinga's focus becomes more clear in the progress of his argument, when he brings examples for 'play' as a predominant phenomenon in different cultures. When he tries to identify the 'civilizing function' of play in such diverse spheres as law and war, art or philosophy, the examples he employs keep recurring to the idea of fixed rules and the obligation to follow them.

The most vivid example for Huizinga's emphasis on the obligatory character of rules may be his discussion of the *potlach* - a custom which is specifically ascribed to Indian tribes in British Colombia, but can be traced throughout cultures, and might even be related to any culturally organized kind of 'wasteful habit' whatsoever:

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59 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 18.

> "In its most typical form as found among the Kwakiutl tribe the potlach is a great solemn feast, during which one of two groups, with much pomp and ceremony, makes gifts on a large scale to the other group for the express purpose of showing its superiority. The only return expected by the donors but incumbent on the recipients lies in the obligation of the latter to reciprocate the feast within a certain period and if possible to surpass it."[60]

While at this point the potlach seems hardly different from any other kind of cultural convention involving the reciprocal donation of presents, its specific relevance for Huizinga's argument becomes clear when he points out the often self-destructive nature of these 'donative festivals':

> "In the potlach one proves one's superiority not merely by the lavish prodigiality of one's gifts, but, what is even more striking, by the wholesale destruction of one's possessions just to show that one can do without them. [...] if one chieftain breaks a copper pot, or burns a pile of blankets, or smashes a canoe, his opponent is under an obligation to destroy at least as much or more if possible. A man will defiantly send the potsherds to his rival or display them as a mark of honour."[61]

In the portrayal of this self-destructive element of the potlach, Huizinga's conception of play becomes strikingly apparent: not only is play unproductive, as it provides no material gain, it can even persist to a point where it results in existential material loss; what counts is not the prospect of advantages gained by winning the game, but the submission to its rules at all costs.

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60 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 58.

61 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 59.

This notion of 'play for play's sake' is fortified when Huizinga portrays another example of ritual play, the *kula*:

> "The *kula* is a ceremonial voyage starting at fixed times from one of the island groups east of New Guinea and going in two opposite directions. Its purpose is the mutual exchange, by the various tribes concerned, of certain articles having no economic value either as necessities or useful implements, but highly priced as precious and notorious ornaments. [...] In the *kula* they pass temporarily from the possession of one group into that of the other, which thereby takes upon itself the obligation to pass them on within a certain space of time to the next link in the *kula* chain."[62]

While the self-dectructive character of the *potlach* seems completely absent in the *kula*, it is again the unconditional and obligatory character of its rules that is emphasized by Huizinga. The portrayal of a joyous, yet binding organization of peaceful cohabitation serves to argue the submission to mutual rules as an indubitable human ideal:

> "At the root of this sacred rite we recognize unmistakably the imperishable need of man to live in beauty. There is no satisfying this need save in play."[63]

The close connection between the idea of 'play' as a human ideal and the obligation to abide by agreements, to 'follow the rules', lies at the heart of Huizinga's examinations, and it can be traced back to his etymological discussion of the term 'play', when he argues - in admitted opposition to general etymologi-

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62 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 62.

63 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 63.

cal acceptance - a correspondance between the terms 'play' and 'pledge', the latter being rooted in the Old English verb *plegan* and the Old Frisian *pflegan*:

> "The oldest meaning is 'to vouch or stand guarantee for, to take a risk, to expose oneself to danger for someone or something'. Next comes 'to bind or engage oneself (*sich verpflichten*), to attend to, take care of (*verpflegen*)'. The German *pflegen* is also used in connection with the performance of a sacred act, the giving of advice, the administration of justice (*Rechtspflege*), and in other Germanic languages you can 'pflegen' homage, thanks, oaths, mourning, work, love, sorcery and - lastly but rarely - even 'play'."[64]

While the etymological validity of his argument is of little relevance at this point, Huizinga's determination to argue an obligatory character of 'play' most certainly is. What Huizinga calls 'play' is actually the following of culturally stipulated rules which apply within a spatially and temporally delimited 'magic circle'[65] - a definition which does not account for the 'freedom' he has earlier defined as a characteristic of 'play', but which is instead consistent with the idea of games as rule-based systems - a seemingly obscure mixing of concepts. But this emphasis on the submission to rules as a cultural and ethical obligation may well be rooted in Huizinga's political agenda: Huizinga having been vice-president of the League of Nations' Committee of Intellectual Cooperation, the threat posed to international law by the rise of national socialism in the 1930's

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64 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 39.

65 Huizinga uses the term 'magic circle' only rarely in his text, see: Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 11. The spacially and/or temporally delineated character of games it denotes, however, is a recurring motive throughout his study.

might also be the key to an appropriate evaluation of his examinations of play[66]. In the light of a political movement which did not only bend the rules established with peaceful cooperation in mind, but simply ignored them, Huizinga's insistence on a 'pledge to abide by the rules' as an ethical obligation seems much less like a theoretical obscurity.

When it becomes apparent that the 'games' he has in mind are neither joyous pastimes nor sacred rituals, but a legal and ethical framework which holds the promise to secure peace and cooperation in the face of clear and present danger, Huizinga's determination becomes far more tangible. Throughout the text, this agenda keeps shining through, and at some rare points, the connection between international law and the ethical obligation of play is even made explicit, as in the remarks on the notion of chivalry as an aesthetic safeguard in his chapter on 'play and war':

> "Most of the tales we hear of noble battles in beautiful style are based not so much on the sober relation of annalists and chroniclers as on literary vision, either of contemporaries or their successors, in epic and song. Nevertheless it would be wrong to conclude that this ennobling of war by viewing it in the light of ethics and aesthetics is but a 'fair seeming', or cruelty in disguise. Even if it were no more than a fiction, these fancies of war as a noble game of honour and virtue have still played an important part in developing civilizations, for it is from them that the idea of chivalry sprang and hence, ultimately, of international law. Of these two factors, chivalry was one of the great stimulants of mediaeval civilization, and however constantly the ideal was belied in reality it served as a basis for interna-

66 see: Pias, Claus: "Wirklich problematisch. Lernen von 'frivolen Gegenständen'.", in: Holtorf, Ch.; Pias, C.: "Escape! Computerspiele als Kulturtechnik", Schriften des Deutschen Hygiene-Museums Dresden Bd.6, Böhlau, Köln/Weimar/Wien, 2007, p. 255-269.

> tional law, which is one of the indispensable safeguards for the community of mankind."[67]

The committment to rules Huizinga calls for is not just a fancy artificial handicap heightening the 'fun' of the game, it is the foundation of 'a noble game of honour and virtue', which is supposed to protect against the doom of civilization itself.

From this perspective, the initial idea of 'play as freedom' becomes much less important than the submission to 'the rules' - similar to the possessions sacrificed in the potlach, freedom, too, can be sacrificed for the 'greater good' of a binding ethical set of rules; in the face of imminent war and destruction, the honourable committment to mutual rules promises to avert the danger of chaos and destruction:

> "The 'law of nations' derives from the agonistic sphere as the consciousness, or voice of consciousness, which says: 'This goes against honour, is against the rules'. Once a thorough-going system of international obligations based on ethics has been developed, there is hardly any room for the agonistic element in the relations of States, for the system tries to sublimate the instinct of political struggle in a true sense of justice and equity."[68]

For Huizinga, it is the committment to rules which alone provides control over the 'free play' of destructive, 'instinctual' powers - a dedication to 'play along' in order to ensure the integrity of otherwise frail social agreements. In this re-

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67 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 95f.

68 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 100.

gard, 'freedom' becomes a threat: in the awareness that the arrangements upholding a peaceful cohabitation will only persist as long as the parties invoved are willing to committ to them, those who choose to 'play against the rules' are seen as a threat to this delicate system of mutual agreements - a threat which becomes apparent in Huizinga's decided warnings about the 'spoil-sport':

> "The player who trespasses against the rules or ignores them is a 'spoil-sport'. The spoil-sport is not the same as the false-player, the cheat; for the latter pretends to be playing the game and, on the face of it, still acknowledges the magic circle. It is curious to note how much more lenient society is to the cheat than to the spoil-sport. This is because the spoil-sport shatters the play-world itself. By withdrawing from the game he reveals the relativity and fragility of the play-world in which he had temporarily shut himself with others. He robs play of its *illusion* - a pregnant word which means literally 'in-play' (from *inlusio, illudere* or *inludere*). Therefore he must be cast out, for he threatens the existence of the play-community."[69]

Only when Huizinga's underlying conception of play as an obligation to follow the rules is kept in mind, the delineating character of this conception becomes apparent: the line he draws is one between play as an obligation to follow the rules, and the negligance of these rules by the 'spoil-sport'. These are the two options which define what play is, and what is not: one can either follow the rules or *not* follow the rules. For Huizinga, there is no space between.

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69 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 11.

Roger Caillois

While Huizinga's insistence on the submission to rules as a defining characteristic of play is not apparent in his initial and explicit definition, but requires a close examination of his argument, the conception of play Roger Caillois employs in his book "Man, Play and Games"[70] is much easier to identify, and the delineations he employs are much more obvious.

Caillois most certainly does not draw the line between the unconditional following of rules and the disorderly conduct of enacted freedom. Instead, he accounts for the compatibility of freedom and obedience by the differentiation between 'ludus' and 'paidia' activities of play - two principles constituting different 'poles' of play, and between which spans a 'continuum' in which every play activity can be localized. While 'ludus' refers to kinds of play that are guided by rules, and therefore conforms with Huizinga's conception of play as the submission to rules, 'paidia' aims to grasp "spontaneous manifestations of the play instinct"[71], and therefore encompasses the 'freedom' which Huizinga emphasizes in his explicit definition, but disregards as a 'threat' to orderly play in his actual argument.

The differentiation between 'ludus' and 'paidia', however, does not serve the purpose of defining play, but in combination with the four 'fundamental cate-

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70 Caillois, Roger: "Man, Play and Games", University of Illinois Press, Chicago, I.L., 2001.

71 Caillois, Roger: "Man, Play and Games", University of Illinois Press, Chicago, I.L., 2001, p. 28.

gories' of play Caillois proposes - agon, alea, ilinx and mimicry[72] -, it rather aims at a systematic organization of different forms of play. The base for this differentiation is a conception of what play might be, which provides a framework for defining play that is regularly drawn upon in contemporary play discourses:

> "[...] for the present, the preceding analysis permits play to be defined as an activity which is essentially:
> 1. *Free:* in which playing is not obligatory; if it were, it would at once lose its attractive and joyous quality as diversion;
> 2. *Separate*: circumscribed within limits of space and time, defined and fixed in advance;
> 3. *Uncertain*: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovation being left to the player's initiative:
> 4. *Unproductive*: creating neither goods, nor wealth, nor new elements of any kind; and, except for the exchange of property among the players, ending in a situation identical to that prevailing at the beginning of the game;
> 5. *Governed by rules*: under conventions that suspend ordinary laws, and for the moment establish new legislation, which alone counts;
> 6. *Make-believe*: accompanied by a special awareness of a second reality or of a free unreality, as against real life."[73]

It is of little relevance for the present argument that Caillois' definition is mostly carried out *ex negativo* by stating certain features which do *not* apply to play. It is at this point a merely semantical difference whether one calls play 'free' or 'not obligatory', whether it is seen as 'self-sufficient' or as 'unproductive'. What

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72 Caillois, Roger: "Man, Play and Games", University of Illinois Press, Chicago, I.L., 2001, p. 12.

73 Caillois, Roger: "Man, Play and Games", University of Illinois Press, Chicago, I.L., 2001, p. 9f.

does matter, however, is the underlying assumption that play - and each of its characteristics - can be seen as one of two exclusionary options, thereby broaching the issue of what Watzlawick has repeatedly tried to advise against as a pitfall of dualist thinking: the idea of opposites, which enforces that either one or the other option has to apply - *tertium non datur*[74]. With few exceptions, Caillois' definition employs dualist delineations to state what play is and what it is not: play is *not* obligatory, it is spatially and temporally *limited*, its course can *not* be determined, play does *not* create goods or wealth, ordinary laws are *suspended*, and finally, it is *not* real life. Caillois' definition therefore relies on the assumption of complementary phenomena of non-play, which are implicitly characterized as being either obligatory, not limited to a certain space or time, following a predetermined course, creating goods or wealth, or governed by 'ordinary laws'. And finally, 'real life' is fundamentally and explicitly regarded as an opposite of play.

It is this opposition in which the delineating character of Caillois' conception of 'play' becomes apparent. His definition is based on positivistic categories, which serve to distinguish 'play' from 'non-play'. While he shares Huizinga's notion that 'play' takes place within 'boundaries of time and space', he is much more consistent in separating 'play' from other, more 'serious' activities, which might serve the production of goods or be guided by laws that affect not only the play-sphere itself, but are valid on a much broader scale. And, most certainly, Caillois' conception of 'play' is opposed to the idea of 'real life'.

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74 Watzlawick, Paul: "The Imperfect Perfection", in: Watzlawick, Paul (Ed.): "The Invented Reality - How Do We Know What We Believe We Know? (Contributions to Constructivism)", W. W. Norton & Company, New York, N.Y., 1984, p. 171.

Gregory Bateson

It is especially this alleged opposition between 'play' and 'real life' that is examined more closely in Gregory Bateson's essay 'A Theory of Play and Fantasy'. Contrary to Huizinga and Caillois, however, it has to be noted that Bateson is not primarily interested in phenomena of 'play' itself; his initial aim is to clarify the significance of abstraction for communication. The focus of his paper is on different levels of abstraction and their implications for negotiatory processes. 'Play' is not Bateson's primary object of interest, it rather serves as a useful "explanatory principle"[75], and its assessment as a prerequisite for the discussion of negotiations and re-evaluations of 'fantasies' in a psychotheurapeutical context:

> "The resemblance between the process of psychotherapy and the phenomenon of play is, in fact, profound. Both occur within a delimited psychological frame, a spatial and temporal bounding of a set of interactive messages. In both play and therapy, the messages have a special and peculiar relationship to a more concrete and basic reality. Just as the pseudocombat of play is not real combat, so also the pseudolove and pseudohate of therapy are not real love and hate. The 'transfer' is discriminated from real love and hate by signals invoking the psychological frame; and indeed it is this frame which permits the transfer to reach its full intensity and to be discussed between patient and therapist."[76]

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75 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 321.

76 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 326.

The idea of 'play' that Bateson argues as 'resembling the process of psychotherapy' is derived from his argument on different levels of abstraction, which determine the relation of communicative events and their denotations, as well as the relation between the 'speakers' participating in the communicative act and, thereby, the intention behind these events. Whenever a statement (be it a verbal statement or a physical action) is regarded not as a discrete information, but as denoting something else it stands for, this process operates on two different levels of abstraction, which Bateson calls metalinguistic and metacommunicative[77].

Metalinguistic messages serve a seemingly simple purpose: the basic abstraction on a metalinguistic level consists in the indication that a statement does not stand for itself, but that it denotes something else:

> "'The verbal sound 'cat' stands for any member of such and such a class of objects' or 'The word, 'cat, has no fur and cannot scratch'."[78]

This seems pretty obvious when the statement concerned is a verbal statement: of course, the word 'cat' is not a furry animal, nor is it a meaningless vocal utterance. The significance of metalinguistic messages becomes more obvious when the statements are not verbal expressions, but expressed actions, as Bateson shows on the example of 'threats':

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77 see: Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 315

78 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 315

> "The clenched fist of threat is different from the punch, but it refers to a possible future (but at present nonexistent) punch."[79]

Similar to the relation of 'words' and 'meaning', the 'clenched fist' is not a meaningful event in itself, it is a message that relates to another event (the possible future punch). The punch itself is not (yet) *real*, but is referred to as a future possibility through the evocative character of the clenched fist.

With the example of a denotative use of actions rather than verbal expressions, however, it also becomes obvious that the mere awareness of the denotative character of these expressions alone is not sufficient to establish a coherent communicative frame. The denotative use of the clenched fist may be intended as a friendly warning, a hostile intimidation, a deceitful pretense or simply a substitution for the actual punch. Or it may be a playful act, an 'invitation to play'. These different intentions are addressed on what Bateson calls a 'metacommunicative level'.

Metacommunicative messages provide information about the intention of a statement or action, therefore determining whether these actions are conducted in good or bad will, or whether they are 'serious' or 'playful'. The purpose of metacommunicative messages is a clarification of the participants' relation[80], an establishment of a serious, playful, friendly or hostile frame of experience.

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79 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 317f.

80 see: Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 315.

While metacommunicative messages can convey a variety of different intentions, it is the message 'This is play' which is most important for Bateson's argument, as it resembles a situation that is also reflected in the psychotherapeutical setting:

> "These actions in which we now engage, do not denote what would be denoted by those actions which these actions denote."[81]

or:

> "The playful nip denotes the bite, but it does not denote what would be denoted by the bite."[82]

The framing 'This is play', therefore, allows for processes of abstract negotiation by evoking a meaning without *actually* 'meaning' it, or - to avoid an ambiguity of the term 'meaning' - events can be addressed in an abstract manner *because* they are not really taking place; play is *paradoxical* because within a frame of play, events can exist only *because* they are not real:

> "Paradox is doubly present in the signals which are exchanged within the context of play, fantasy, threat etc. Not only does the playful nip not denote what would be denoted by the bite for which it stands, but, in addition, the bite itself is fictional. Not only do the

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81 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 317.

82 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 317.

> playing animals not quite mean what they are saying but, also, they are usually communicating about something which does not exist."[83]

In play as well as in psychotherapy, this act of 'communicating about something which does not exist' allows for a 'playful' (re-)assessment of the meaning this 'something' would otherwise denote; this playful negotiation of abstract meaning does not simply *tolerate* the absence of the negotiated meaning, it *requires* its absence. In order to evoke 'that which isn't there', the evocative actions must resemble the actions they refer to, while not actually *being* these actions: they are 'play-actions', which are "similar to, but not the same as"[84] the 'serious actions' they resemble:

> "[...] play is a phenomenon in which the actions of 'play' are related to, or denote, other actions of 'not play'."[85]

Bateson's theory therefore, while strictly speaking not being an actual 'play-theory', accounts for the interrelation between 'play' and 'real life' by acknowledging the resemblences between 'real actions' and their abstract evocation in play. Play does not consist in specific actions, but in the way actions are framed and consequently interpreted as resemblences of other actions, thereby opening up spaces of negotiation for these other actions' meaning.

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83 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 319.

84 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 316.

85 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 317.

This concept of play, however, again requires a distinction between play and non-play. While the transition between 'play' and 'not play' may not be easily determined, there is an assumed border between the two, and while neither observer nor participant can always be sure whether an activity is part of one side or the other, the difference between the two sides is not dissolved: play-actions have a "special and peculiar relationship to a more concrete and basic reality"[86], thereby linking play and reality in a way that at the same time delineates the two as seperate ideas.

Brian Sutton-Smith

This clarity dissolves in Brian Sutton-Smith's considerations on 'The Ambiguity of Play'. His argument is based on the observation that while no one seems to doubt that the idea of 'play' derives from phenomena that everyone experiences at certain times and in specific cirumstances, and that, on an intuitive level, anyone can easily determine if and when they experience 'play', any kind of theoretical undertaking to describe and define what it is that constitutes this 'play experience' leads to inconsistencies and contradictions:

> "We all play occasionally, and we all know what playing feels like. But when it comes to making theoretical statements about what play is, we fall into silliness. There is little agreement among us, and much ambiguity."[87]

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86 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 326.

87 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 1.

In an attempt to "bring some coherence to the ambiguous field of play theory"[88], Sutton-Smith identifies a variety of 'play rhetorics', all leading to different conceptions of play, guided not simply by different observations of the same 'subject matter', but bringing forth this subject matter in the first place by creating 'persuasive discourses', which strongly promote what falls under the category of 'play' and what doesn't:

> "Authors seek to persuade us in innumerable ways that their choice and their direction of research of study is sound. These identifications of theirs, and their persuasiveness, implicit or otherwise, are the intellectual odor that is to be known here as their rhetoric."[89]

These various play rhetorics are not simply self-contained or arbitrary constructs, but derive from limiting presuppositions from which a specific play rhetoric emerges - hinting at predominant rhetorics that can either be 'broader' or 'narrower' than the specific play rhetorics they give rise to:

> "Of the broader kind are those [rhetorics] that derive from beliefs about religion, politics, social welfare, crime, and morality - that is, from all the matters that priests, politicians and salespersons constantly harangue folks about. [...] They constitute the incessant discourse about who we are and how we should live. [...] The rhetorics of science are generally of a narrower and more explicit kind. Science, after all, has its own epistemological rhetorics of reliability, validity, and prediction. Scholarship in general has its required consistency, coherence, and authenticity. All of these scientific and scholarly

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88 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 7.

89 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 8.

> tenets are also rhetorics, because they assume and propagate the view that there is a knowable world, or a knowable text, and then, acting as if that assumption is real (a hypothetical fiction), proceed to their methodical undertakings."[90]

What Sutton-Smith implicitly shows by revealing the various "ideological underpinnings of play theories"[91] is that the noted 'ambugity of play' may not so much be a characteristic of 'play' itself, but rather the result of the "first distinctions"[92] underlying different play discourses, epistemological "blind spots"[93] which are not themselves made explicit, but still pre-determine the object of research:

> "[...] the rhetorics of play express the way play is placed in context within broader value systems, which are assumed by the theorists of play rather than studied directly by them."[94]

In light of the persuasive purpose of play rhetorics, it is not surprising that they do not so much provide conclusive models illuminating 'play' as an obvious, if complex, phenomenon, but rather use different conceptions of play as vehicles to promote and perpetuate their own respective sets of values and beliefs: while 'play' denotes all that is not-serious, superfluous and gratuitous, discussions of

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90 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 12.

91 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 3.

92 see: Spencer-Brown, George: "Laws of Form", E.P. Dutton, New York, N.Y., 1979.

93 Foerster, Heinz von: "On Constructing a Reality", in: Watzlawick, Paul (Ed.): "The Invented Reality - How Do We Know What We Believe We Know? (Contributions to Constructivism)", W. W. Norton & Company, New York, N.Y., 1984, p. 42f.

94 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 8.

play at the same time consolidate the respective concepts of 'non play' as all that is serious, necessary and obligatory, thereby promoting and legitimating a set of values and beliefs through the instrument of play theories. It is due to the diversity of these sets of values and beliefs that play seems such an ambiguous concept: depending on the respective ideas of 'non play', almost anything can be regarded as 'play' if it fits the purpose. When Sutton-Smith tries to illustrate the diversity of play, he lists more than 200 examples of activities that are sometimes regarded as play[95]. These examples include such diverse activities as: *imaginations, flower arranging, playing tricks, dancing, playing the piano, Christmas, football* or *windsurfing*.

While the intention of this list is to "illustrate the diversity of play phenomena"[96], it also clearly highlights another aspect of play, which shows the main problem of delineating play-concepts: while the examples listed can *sometimes* serve as examples for play, any item on the list can *also* be regarded as non-play from another perspective. The question arises if 'play' can actually be grasped by examining specific activities. Maybe the idea of 'play' may better be sought in the way these activities are experienced, thereby consisting more in the attitude in which certain activities are discussed, experienced and, consequently, promoted as 'play' or 'non-play'.

Contrary to the idea that "we all know what playing feels like", 'play' appears as a rather elusive phenomenon. Any attempt to positivistically define it and

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95 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 4f.

96 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 4.

draw a line between 'play' and 'non-play', therefore, may shed a light on the underlying conceptions of 'non-play' rather than enabling a phenomenological assessment of 'play'. When the 'ideological underpinnings' of play theories are revealed and the "cultural construction"[97] behind different play concepts becomes evident, it seems that 'play' itself may not actually be the object of interest, but rather an opportunity to promote the respective opposite of play as an ideology "to believe in and live by."[98]

The 'play theories' of Huizinga, Caillois, and to some extent even Bateson can all be considered from this perspective.[99] The notion of 'play theory' as being guided by ideologies of 'non play' reveals an important issue of delineating play concepts: while the particular examinations present very different and elaborate categories marking the assumed difference between 'play' and 'non-play', it is not so much the 'nature' of play that is elaborated on, but the respective nature of 'non-play'; while 'play' itself is constantly hinted at and referred to, the assumptions about 'what play is' are made long before the examination takes its course. Play, after all, is the starting point of these examinations rather than their conclusion, and it is due to the fact that we all seem to "know what playing feels like" that play seems a phenomenon so self-explanatory that its nature can be pre-supposed, and the consequential assessments mostly focus on delineating it from its opposite rather than assessing its inherent complexities.

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97 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 15.

98 Sutton-Smith, Brian: "The Ambiguity of Play", Harvard University Press, Cambridge, M.A., 1997, p. 11.

99 see: Pias, Claus: "Wirklich problematisch. Lernen von 'frivolen Gegenständen'.", in: Holtorf, Ch.; Pias, C.: "Escape! Computerspiele als Kulturtechnik", Schriften des Deutschen Hygiene-Museums Dresden Bd.6, Böhlau, Köln/Weimar/Wien, 2007, p. 255.

This delineating character of explicit 'play theories' seems almost inevitable when the aim is on an assessment of either 'play' or 'non-play'. Implicitly, any focus on 'play' already suggests a delineation, a positivistically determined assumption on where the line between 'play' and 'non play' is to be drawn. In the following, I will discuss an alternative approach, which suggests an idea of 'play' that is not one side of a coin, but achieves a more elaborate model of play, which might prove useful for a closer examination of 'play phenomena' in the game studies discourse.

Friedrich Schiller

Friedrich Schiller's so-called 'play theory' is different from other theories of play in that he does not intend to understand play in contrast to non-play. As phenomena of games and play are not the underlying focus of his model, he is able to develop a concept of play that is not a premise, but a result of his considerations.

In his treatise 'On the Aesthetical Education of Man in a Series of Letters' (1793/1795)[100], Schiller argues that human beings are positioned between two dispersing 'drives': the 'sense-drive' (which includes concepts like feelings, experience, daily life and nature) on one hand, and the 'form-drive' (which is present in the idea of principles, ideals, reason or morals) on the other:

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100 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000. If not otherwise noted, the english translations of Schiller's terminology are from: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967.

> "The object of the sense-drive, expressed in a general concept, we call *life*, in the widest sense of the term: a concept designating all material being and all that is immediately present to the senses. The object of the form-drive, expressed in a general concept, we call *form*, both in the figurative and in the literal sense of this word: a concept which includes all the formal qualities of things and all the relations of these to our thinking faculties."[101]

'Beauty' in the context of Schiller's aesthetic, cannot arise from the absolute surrender to one of the two drives, but requires a balance of these dispersing forces:

> "[...] the term beauty is neither extended to cover the whole realm of living things nor is it merely confined to this realm. A block of marble, though it is and remains lifeless, can nevertheless, thanks to the architect or the sculptor, become living form; and and a human being, though he may live and have form, is far from being on that account a living form. In order to be so, his form would have to be life, and his life form. As long as we merely think about his form, it is lifeless, a mere abstraction; as long as we merely feel his life, it is formless, a mere impression. Only when his form lives in our feeling and his life takes on form in our understanding, does he become living form; and this will always be the case when we adjudge him beautiful."[102]

The balance between sense-drive and form-drive, therefore, requires a third concept, which achieves this balance of life and form as 'living form'. Schiller

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101 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 58. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 101.

102 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 58. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 101.

calls this third concept 'play-drive' ('*Spieltrieb*') - not in the sense of a delineating concept of play which might serve to distinguish playing cards from the serious sides of life, but in the sense of a moderating principle which is set as a third concept between the dispersing forces of sense-drive and form-drive. This play-drive constitutes sense-drive and form drive *in relation* to each other, while at the same time being comprehensible only as an intermediate concept serving as a moderator between the two:

> "Since, in contemplation of the beautiful, the psyche finds itself in a happy medium between the realm of the law and the sphere of physical exigency, it is, precisely because it is divided between the two, removed from the constraint of the one as of the other."[103]

What Schiller employs is not a cultural image of play contrasting the seriousness of life. His concept of play cannot be understood in terms of 'game artifacts', marked-off phenomena seperate from other cultural domains, but as an integrative concept, balancing disperse forces and only existent as an intermediate principle.

It is the great asset of Schiller's discussion of play that it does not derive from the observation of playing games - Schiller explicitly excludes these "frivolous things"[104] from his considerations. While dedicated game and play theorists aim

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103 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 60. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 105.

104 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 61. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 105.

at positivistically defining games and play by contrasting their features to non-games and non-play, his concept of play is not a tool to define games, but derives from a general disussion of balancing out conflicting demands, leading to a concept that cannot be understood in contrast, but only in combination with other forces. Claus Pias therefore calls this concept of play a "general regulating principle"[105] ("*ein allgemeines Regelungsprinzip*") and puts it in relation with James Watt's centrifugal governor (ca. 1788), arguing the importance of this idea for 20th century cybernetics.

The basic concept of the centrifugal governor, as simple as it is, has far-reaching consequences in regard to the idea of cause and effect: designed as a regulating mechanism for steam engines, the governor is dependent on the amount of steam produced by the engine. The more steam is produced, the faster the governor will turn; the faster the governor turns, the more it will reduce the production of steam by gradually closing a valve connected to it. The resulting decline of steam output will make the governor move more slowly, which will gradually open the valve again, leading to an increasing in steam output (and so on). The governor balances the two dispersing factors of increase and decrease, balancing the two in dependence of each other.

While the design of the centrifugal governor can serve as a very specific mental image illustrating the idea of self-regulating systems (which has later become a

105 see: Pias, Claus: "Wirklich problematisch. Lernen von 'frivolen Gegenständen'.", in: Holtorf, Ch.; Pias, C.: "Escape! Computerspiele als Kulturtechnik", Schriften des Deutschen Hygiene-Museums Dresden Bd.6, Böhlau, Köln/Weimar/Wien, 2007, p. 255-269.

key concept of cybernetics[106], constructivism[107] and systems theory[108]) it is also consistent with Schiller's considerations of play, and might therefore suggest exploring this concept in terms of mechanical metaphors.

1.3.2 A mechanical conception of play

It has to be noted that this mechanical idea of 'play' is not completely absent in the game studies discourse. Again it is Salen and Zimmerman who provide a definition implying a mechanical concept of play:

> "Think about the use of the word 'play' in the sense of the 'free play' of a gear or a car's steering wheel. The 'play' is the amount of movement that the steering wheel can move on its own within the system, the amount the steering wheel can turn before it begins to turn the tires of the car. The play itself exists only because of the more utilitarian structures of the driving-system: the drive shaft, axles, wheels, and so on. The 'rules' created by these elements make the free movement of play possible. Play emerges from the relationships guiding the functioning of the system, occuring in the interstitial spaces between and among its components. Play is an expression of

106 see: Ashby, W. Ross: Principles of the Self-Organizating System", in: Foerster, Heinz von; Zopf, George W. Jr.: "Principles of Self-Organization. Transactions of the University of Illinois Symposium on Self-Organization", Pergamon Press, Oxford/London/New York/Paris, 1962, p. 255-278.

107 see: Watzlawick, Paul: "Psychiatry's Changing Image of Man", in: Watzlawick, Paul: "Münchhausen's Pigtail of Psychotherapy & Reality", Norton & Company, New York, N.Y., 1990, p. 51f.

108 see: Bertalanffy, Ludwig von: "General Systems Theory: Foundations - Development - Applications", The Penguin Press, London, 1971, esp. p. 147.

> the system, one that takes advantage of the space of possibility created from the system's structure."[109]

While Salen and Zimmerman clearly take into account the mechanical denotations of the term 'play', and in their definition resist the urge to conceive of play as the opposite of 'non-play', they still adhere to a dualist conception of the phenomenon:

> "Play is free movement within a more rigid structure."[110]

Although this definition quite openly refers to mechanical metaphors, it still suggests 'play' as one of two opposing poles. Contrary to the historical play theories discussed above, this opposition does not evolve around play and 'real life'. Instead, this conception of play addresses the relation of 'play' and 'games', the seemingly contradictory notion that 'playing games' involves the acceptance of restrictions and limitations while at the same time allowing the player a certain 'freedom to play'.

Games, in this conception, are the 'rigid structure', which constitutes one pole of the experience of 'playing a game'. And it is convincing to assume that the opposite pole can be described as 'freedom'. But 'play', in a mechanical sense, is not equal to this idea of freedom. It is *freedom within the structure*, it is neither

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109 Salen, Katie; Zimmerman, Eric: "Defining Play", in: Salen, Katie; Zimmerman, Eric: "Rules of Play: Game Design Fundamentals", MIT Press, Cambridge, M.A., 2004, p. 304.

110 Salen, Katie; Zimmerman, Eric: "Defining Play", in: Salen, Katie; Zimmerman, Eric: "Rules of Play: Game Design Fundamentals", MIT Press, Cambridge, M.A., 2004, p. 304.

free nor rigid, but the relation of these irreconcilable concepts; and again, play seems paradoxical.

It is this paradox that makes the idea of play so elusive, and seems to account for a certain indecisiveness when it comes to the assessment of play in the game studies discourse: how can play be freedom, if it is also restricted? And how can a game demand submission to rules, if its aim is to bring forth freedom?

tertium datur: play as an intermediating force

In order to make this paradox more tangible and, finally, more applicable for the assessment of 'playing games', the duality of 'restrictive rules' and 'player freedom' must be given up in favor of a third concept, which can draw upon Schiller's notion of 'play': a concept which can not simply be understood as an effect of the exclusive forces of 'restriction' and 'freedom', but enables the interplay of both through its own inherent characteristics.

These 'inherent characteristics of play' as an intermediating concept become quite obvious when the idea of 'mechanical play' is examined with a focus on its mediating qualities, rather than its emergence from the system's restrictions. Contrary to Salen and Zimmerman's illustration, which highlights the 'freedom' to turn a car's steering wheel a little before this freedom gives up to the 'function' of turning the car's tires, a focus on the exact "spot" at which mechanical play itself takes place may help to identify its own inherent function: For example, a piston moving inside a cylinder needs to have a certain amount of 'play'. If there is *not enough* play, the piston will get stuck in the cylinder, and

movement is no longer possible; the static form prohibits the dynamic motion. If there is *too much* play, the piston will not move in the intended direction; the form ist lost in favor of undirected motion.

'Play' therefore defines the range of aberration within a system in which the functioning of the system is already possible, but not yet endangered: the system's parts need a certain amount of 'freedom' in order to contribute to a dynamic system, but at the same time a certain amount of constraint is required in order to 'keep the parts within the system'.

This characteristic of mechanical play is evident in the concepts of 'error', 'fault', 'irregularity', 'variation' and - finally - 'tolerance'. 'Play' is not simply an effect of the colliding forces of freedom and restraint, it is a third concept, which negotiates between the two through its own 'logic' - a logic which cannot be grasped by the absoluteness of restrictions, nor by the openness implied by freedom. 'Play' does not employ the strict logic which opposes freedom and restraint, but rather the 'fuzzy' logic of possibilities. While freedom as well as restraint may either apply or not apply, 'play' present a third option: it provides contingencies, which can not be grasped by concepts of 'yes' and 'no', but by the simple, yet elusive category: 'maybe'.

If play is assessed as a category of contingencies, mediating between opposing demands, how can this concept be applied to the assessment of 'playing games'? In the following, I will attempt to address three very different issues of contemporary game studies, and examine how an according idea of 'play' as a mediating principle between two diverging forces can change the way these issues can be approached.

1.3.3 The 'Stitches' Problem: Immersion and the 'active creation of belief'

In Massive Multiplayer Online Roleplaying Games, players are regularly given the possibility to enact heroic deeds through the completion of quests. In some cases, the fictional layer provides a conclusive explanation for the fact that these deeds are not a one time event, but consist of more or less important errands, which will only temporarily solve a fictional problem. For example, if players are asked to gather berries for a town's cook, it is obvious that a certain amount of berries will only temporarily provide the supplies necassary to feed the townsfolk. When hundreds and thousands of players share a game server and, thus, participate in the same 'game world', this kind of quest is easily integrated into the game's fiction: luckily, I am not the *only* hero in this world providing his or her services, or the single task of gathering enough berries to feed the townspeople could keep me endlessly busy. In most cases, I do the quest once, and can then proceed to other deeds. In these cases, the fact that a vast number of players is doing the same quests as I am is consistent with the experience of the game's fictional layer.

This kind of consistency starts to crumble when quests do not consist of 'harvesting' supplies that 'naturally' replenish with time, and will always be in demand. When quests involve the killing of enemies, for example, the completion of the quest by an individual player is not as easily reconcilable with the fact that others, before and after her, are successfully completing the same quest as she is. Even though a certain spot has been cleared of enemies multiple times before I get the respective quest, this spot will be swarming with enemies which

I can proceed to kill in order to complete it. And after I have cleared the spot, the enemies will respawn after a certain period of time, allowing others to fulfill the same quest requirements as I did and kill the same enemies all over again.
Some games address this 'problem' by providing explanations on a fictional level. In the MMORPG *Everquest 2 (Sony Online Entertainment, 2004)*, for instance, enemies like skeletons or ghosts will shout things like "Others will take my place!" or "I will use your bones to fix what you break!" before they die - referring to their nature as 'haunted creatures': these enemies cannot *really* be killed, as they are 'already dead', and whatever caused them to appear will continue to spawn 'others' just like them - allowing for infinite numbers of players to 'solve' the same problem.

This kind of fictional explanation, however, is only possible when the enemies in question are nameless goons, which an evil force keeps conjuring - similar to the regrowth of berries in the woods. Sometimes, however, the enemy to be killed is a unique creature, a specific 'person' with its individual history and identity. In *World of Warcraft (Blizzard Entertainment, 2004)*, for instance, players in the earlier stages of the game meet 'Stitches', a horrible monstrosity, who threatens the townsfolk of Darkshire in the scary forests of Duskwood. Stitches is not just another goon, he (or she) is a very specific monster, which the player even helped to accidentally create in the preceding questline.

After the player has killed Stitches, she is exuberantly celebrated as the liberator of Duskwood - after all, she has disposed of a particularly gruesome scourge, and has spared the townsfolk certain doom. So far for the fiction.
In a single player game, after completing the quest, Stitches would be done with once and for all. As *World of Warcraft*, however, is a multiplayer game, accomo-

dating thousands of characters per server[111], it must provide 'Stitches' for everyone. Any time a player does the quest, a new version of Stitches spawns, in order to allow for this player to dispose of her very own Stitches. If a player who has already killed Stitches crosses the area of Duskwood, it is very likely that she will encounter Stitches again, because another player is currently doing the according quest.

While this experience does not make sense in the game's fiction - as the fiction itself emphasizes the 'unique' nature of Stitches - it still is a common experience in MMORPGs. An experience which poses a challenging problem for the analysis of the game, especially when the game's immersive qualities are assessed from a perspective of delineating concepts of play:
Following a delineating definition, play is considered to be an opposite of non-play, it is conceived of as an activity that takes place "outside ordinary life" and in form of "a free unreality, as against real life". The re-appearance of Stitches clearly menaces this illusion of play as a clearly separate phenomenon, it threatens the 'magic circle'. While in a delineating model, playing the game provides the experience of being a hero and fulfilling exceptional deeds, the repeated encounter with previously defeated enemies questions the idea of the individual player's distinctiveness, and forces her to acknowledge that whatever she accomplishes is also accomplished by thousands of others: after all, she is not the uncontested liberator of Darkshire, but one in a million (or, in the case of *World of Warcraft*, one in a few millions, for that matter).

111 see: http://www.warcraftrealms.com/eu_realmstats.php

The clash of individual player accomplishments and the experience that these accomplishments are shared with millions of other players clearly presents a breach of the game world's immersion. Applying delineating concepts of play, the continuation of player immersion can only be explained as a deliberate act on the players' side: players choose to 'turn a blind eye' on the fact that their uniqueness proves to be an illusion. Concepts like the "active creation of belief"[112] account for this idea of player patience in the face of a crumbling game world. In awareness of this 'problem', and in order to 'avoid' it, Blizzard has even come up with a technical solution. Since the game's *Cataclysm*-Expansion (*Blizzard Entertainment*, 2010), players enter a "phased" version of Darkshire when encountering Stitches - a 'parallel world' within the game, which is only accessible to players on the same 'stage' of the quest. Whenever a player has defeated Stitches, she will not be able to see 'other versions' of this monster ever again while playing on the same character.

From the perspective of non-delineating, mechanical concepts of play, however, this 'clash' doesn't seem that much of a problem. When play is not conceived of as one of two opposites (either opposed to the seriousness of non-play or as the freedom opposing the restrictions of the game's rules and mechanics) but as a third concept with its own demands, negotiating between opposing faculties, it is possible to integrate these 'opposing faculties' which play can achieve to tie together. In the case of the 'Stitches problem', these faculties may be identified as the experience of individual and distinguished achievements on one hand, and the awareness of a vast community sharing the same experience on the other. Metaphorically, these faculties may reflect a society in which individual

112 Murray, Janet H.: "Hamlet on the Holodeck. The Future of Narrative in Cyberspace", The MIT Press, Cambridge, M.A., 1997, p. 110ff.

self-realization is a constant demand, which at the same time is suggested to be achievable through the acquisition of mass-produced articles - a contradiction which becomes apparent in the suggestive allusions to an individualistic life-style in any IKEA catalogue.

The balancing characteristics of play - if conceived of as a mediating concept - make it possible to negotiate these conflicting demands, and to 'playfully' find a way to deal with this contradiction - a contradiction which, without the balance of play, could easily prove unmanageable.

1.3.4 The design of challenge and the question of serious games

While the label 'Serious Games' alone quite placatively challenges the idea of delineating play from 'the seriousness of life', the attempt to use play for any kind of educational or informative purpose also raises the question how play and games can be designed in order to 'teach' or 'persuade' in the first place: at what point of play are players confronted with issues that they can become aware of, reflect upon and maybe allow to influence their current beliefs?
The answer to this question may be found in a phenomenon which distinguishes games from other forms of entertainment, education and information: the idea of *challenge*.

The well-established design principle "as simple as possible, as complex as necessary" does not apply when it comes to the modeling of 'challenges' in game design. In order to provide players with interesting and challenging tasks, while

at the same time avoiding player frustration, the principle applied seems much more rigorous: "as complex as possible, as simple as necessary".
Again, this idea of challenge as a 'limitation of viable possibilities' clearly hints at the presence of conflicting forces within the game: the conflicts fueling a game's challenges can always be found in the tight spot between the game's goals and the obstacles which prevent players from reaching these goals easily.
A delineating conception of play would suggest to conceive of these opposing faculties of 'goals' and 'obstacles' as manifestations of different poles: the 'freedom to play' on one hand, the 'restrictions of the game' on the other. While the restrictions of the game's rules present obstacles that need to be overcome, it is the prospect of reaching the game's goals which motivates players to 'play' until they have found a way to beat the game. This focus on the opposing factors of 'goals' and 'obstacles', however, highlights the conditional framework within which play takes place - the exterior requirements of play, in their positive (i.e. motivating) and negative (i.e. restricting) manifestation. What is left is the unsatisfying conclusion: in games, players aim to solve problems they wouldn't have if they didn't play the game.

Contrary to this, a mediating concept of play allows to ask for the 'tight spot' itself, as it addresses the very nature of the 'playful attitude' that enables actions which tie together the opposing forces of 'goals' and 'obstacles', of 'desire' and 'obligation'. In 'serious games', where the persuasive character of games is in question, this mediating concept of play may provide a more viable perspective on how this persuasion can take place by addressing play as the negotiation of opposing forces rather than deciding which of these forces may be called 'play', and which may not.

In Mary Flanagan's game *Profit Seed* (*Tiltfactor*, 2009), players "play as the wind in a game about genetically modified crops"[113]. At the beginning of each level, players are presented with increasingly detailed background information about the legal, economical and social issues evolving around the planting, distribution and patenting of genetically modified seeds. While the 'goal' of each level is to plant natural seeds in specific fields while avoiding the accidental planting of genetically modified seeds, this task is hindered by different gameplay challenges, which reflect the background issues presented at the start of the level. The rising percentage of genetically modified crops, for instance, is reflected in the natural / modified seed ratio in the game, making it harder to 'pick' the natural seeds while avoiding the accidental planting of genetically modified seeds. And the legal restrictions imposed on farmers by seed companies is reflected by the challenge to not only plant the 'right' seeds, but also planting them in the right order: specific fields can only be used for planting after certain other fields have been harvested - an additional artificial restriction which can lead to rather frustrating experiences.

But what exactly is it the game tries to convey? Is it the legal and economical complexities that the 'manipulated seeds' market poses? Or is it the importance to keep planting natural seeds, while avoiding those which are genetically manipulated? These issues clearly present diverging demands, which need to be tied together through play. The 'topic' of the game cannot be layed out as only one of these issues; what the game presents is the challenge to 'deal with' the difficulties that arise when these diverging demands are both taken seriously. While 'planting seeds' may constitute the game's goal, the aim for this goal be-

113 http://www.tiltfactor.org

comes a challenge through the opposing force of the artificial limitations of the 'manipulated seeds trade'. Hence, the game's 'topic' does neither consist in goals nor obstacles alone, but in the conflict that arises when these two faculties converge.

It is this enactment of 'conflict' through play which constitutes the 'serious topic' of the game. Contrary to the idea of 'teaching', which implies a specific topic or content to be 'taught', the mediating character of play suggests an alternative idea of 'learning as orientation': play allows for the negotiation of diverging demands and the development of strategies to position oneself in this 'realm of opposition'.

1.3.5 Play and Violence

In public and academic discourses on possible relations and dependencies between virtual and 'real violence', a delineating conception of play inevitably leads to the question of 'causes and effects' and the conditions of transfer processes between virtual experiences and their implementation in the 'real world'. The key question is whether experiences made in the game, 'seperate from the real world', can in consequence effect behaviour in this 'real world'. The argument that serious and educational games are effective and convincing instruments of persuasion leads to growing concerns when it comes to 'violent gaming': if desired attitudes and behaviour can effectively be triggered through games, then the same might be suggested for strategies of violence.

Again, a mediating conception of play enables a different perspective: as a mediating faculty, play-actions may not present 'blueprints' to be copied in real life, but open up spaces of negotiation between opposing forces. So, what are these opposing forces in the case of 'violent games'[114]?

On the one hand, there is the demand to be aware of and follow society's 'rules' of interaction and peaceful cohabitation, a demand which necessitates a certain amount of adaptation and submission, the willingness to constrain oneself in favor of the standards called for by a social environment. In opposition to this, there is the individual desire to formatively affect the environment one is living in, the desire to experience a 'sense of agency' and to take action in order to shape the world in a purposeful way - a desire which may qualify as an abstract base for what is often called 'violence'.

And once again, it is through play that these diverging forces - the desire to shape the world, and the willingness to get shaped by it - can be tied together. Playfully, these opposing forces can be balanced. As a tool, play promises to enable Schiller's ideal of freedom, and to enable 'beauty' in life and form, not by submitting to either the 'interior' demands of one's wishes and desires, nor to the 'exterior' demands of society, but by experiencing ways to balance these demands.

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114 'Violent games', in this regard, circumscribes games that explicitly address violence on a *fictional level*, as these games are the focus of attention in current debates on games and violence. It may be fruitful to ask what *game strategies* reflect violent behaviour on a structural level, even when the game's fiction seems perfectly 'peaceful'. This question, however, is not addressed in this present examination. see: Johnson, Soren: "Theme is Not Meaning", Soren Johnson's Game Design Journal, June 2010: http://www.designer-notes.com/?p=237

But not only does a mediating conception of play question the seemingly obvious connection between the playful enactment of violence and the emergence of violent strategies in real life. It may even suggest a quite contrary hypothesis: the possibility that it is not play that leads to violent behaviour, even if takes the form of a playful enactment of seemingly violent acts, but rather a lack of play which accounts for experiences that finally lead to what is often subsumized as 'violent behaviour'.

In his book "Play"[115], psychiatrist and play researcher Stuart Brown reconstructs the childhood and youth of Charles Whitman, the notorious 'Texas Tower Sniper' who, in the summer of 1966 (long before the emergence of digital games and, therefore, the games and violence debate) climbed the observation deck of an administrative building at the University of Austin, Texas, and shot 16 people - the first so-called 'campus shooting'.
In his assessment of the possible causes of the crime, Brown emphasizes the 'lack of play' which charaterized Whitman's childhood and youth:

> "In Charlie's home, the constant mantle of control and fear didn't allow the emergence of normal patterns of play. Charlie wasn't allowed to play outside with other kids. Instead he was forced to stay inside and do something 'useful', like practice piano. When Charlie did get away from his father, when he was out with his mother at the grocery store, his father was still there controlling events by CB radio. When friends of the family did come over, the first thing the elder Whitman would do was put Charlie on display, demanding an

115 Brown, Stuart: "Play: how it shapes the brain, opens the imagination, and invigorates the soul", Avery, New York, N.Y., 2009.

> impromptu piano recital or showing off some other trick he had taught Charlie."[116]

In this environment of constant control, which did not allow for 'error' or 'tolernace' towards deviant behaviour, any emergence of 'play' was immediately prohibited. According to Brown, it is precisely this 'lack of play' which accounts for the later outburst of violence, an outburst which presents a desperate act of final autonomy:

> "As Charlie matured, his repertoire of responses to the world was narrow, kept within the boundaries of his father's ambitions for him, and closely monitored. A master of outward conformity, he was inwardly seething for years. He sought out no real mentor's to break his father's control, so that by the time of the Texas Tower Massacre, he lived emotionally alone, persevering on a path he could not master, driven not by his own desires or needs, and without alternatives. His final (and only) really autonomous action, narrow in scope, but devastating in effect, was an attempt to gain some inner relief by acts of murder-suicide, well described in his diaries."[117]

Convincing as this causality may seem, it has to be noted that Brown again employs a delineating concept of play: contrary to the oppressive restrictions enforced by Whitman's father, play represents Whitman's individual desires, which he has never been free to explore and enact. In this dualist conception, the totality of one force leads to a suppression of the other, which at some later point comes into it's own: Whitman's 'freedom', which he has been denied for so long, finally prevails, even if it is in a desperate and devastating act. What

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116 Brown, Stuart: "Play: how it shapes the brain, opens the imagination, and invigorates the soul", Avery, New York, N.Y., 2009, p. 96.

117 Brown, Stuart: "Play: how it shapes the brain, opens the imagination, and invigorates the soul", Avery, New York, N.Y., 2009, p. 97.

Brown calls 'autonomy' is just another word for the freedom to acknowledge one's inner desires - an opposition to the external restrictions imposed by a social environment.

According to a mediating concept of play, however, play does not constitute personal 'freedom' in opposition to societal 'restrictions', but presents a way to negotiate these conflicting forces, it constitutes 'autonomy' by allowing the exploration of strategies to negotiate between external demands and internal desires. While Brown's notion of a 'lack of play' as a possible explanation for aggression and - finally - violence seems viable, it may be too simple to limit this relation to the suppression of freedom through societal limitations. A mediating concept of play does not present freedom as an alternative to restrictions, but addresses the possibility to balance these conflicting faculties by allowing the exploration of strategies to acknowledge both and finally dissolve the opposition. Play enables to develop the 'repertoire of responses' which allows to act upon individual desires while still accomodating external demands, instead of enforcing total submission to either of these forces.

In his conception of dispersing forces, Friedrich Schiller opposes two extremes of absolute submission as different ways "man can be at odds with himself"[118]: the "savage", who submits to feelings alone and disregards principle; and the "barbarian", who submits to principles alone and consequently destroys feeling.

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118 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 17. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 21.

Both contradict Schiller's aesthetical ideal, but it is not the nature of either force that he vilifies, but the idea of total submission to either. By mitigating this totality, play provides an intermediate space which allows for the negotiation and balancing of opposing forces - be they principle or feeling, restrictions or freedom, societal demands or individual desire. Through play, these opposite poles can both be accounted for, while neither is accepted as an absolute and total condition.

As has been pointed out, the exclusion of 'game artifacts' is the prerequisite of Schiller's argument, and allows for the emergence of a mediating concept of 'play' that is not pre-determined by an assumed difference between play and non-play, between the 'freedom of play' and the 'seriousness of life' or even the diverging ideas of 'play' and 'games'. But once this concept has taken form, it might provide a viable and productive perspective when it is again applied to the 'frivolous' manifestation of play in form of 'gameplay experiences'.

Contrary to the well-arranged nature of either freedom or restriction, however, the more elusive characteristics constituting this idea of play present their own challenges when they are to be the base for an assessment of phenomena of play and games; concepts like error and tolerance, fault or abberration do not promise to be definite categories which may either be 'true' or 'false', but denote rather ambiguous and volatile spaces of possibility. Play, in this conception, is neither a specific attitude nor a certain activity, but a contingent experience.

The next chapter will, therefore, address the contingent character of gameplay experiences, and examine how an assessment of these contingencies may be possible without dissolving into arbitrariness.

1.4 Third Construction: Contingency

And then she kissed me and I realized
she probably was right
There must be
fifty ways to leave your lover
(Paul Simon)[119]

The third chapter addresses possible ways of applying constructivist concepts to computer games as a media as a low-range theory. Exemplary, the relation of games and narrative will be assessed from a constructivist perspective, and a methodological approach accounting for the contingent character of gameplay experiences will be suggested.

1.4.1 The relation of games and narrative

The relation of games and narrative has been subject to thorough discussion in the game studies discourse for quite some time. At the beginning of this discussion, the demand was to clarify whether computer games could be thought of as narrative media at all, or if their media-specific strategies could only be understood in completely different terms.

In the ensuing "narratology-ludology debate", narratologists - mainly guided by theoretic concepts deriving from literature studies - were looking for ways to identify classical narrative concepts in games, understanding games as representational media in a traditional sense, comparable to film or literature, while

[119] *Fifty Ways to Leave your Lover* (Paul Simon/Columbia Records, 1975)

ludologists insisted on the necessity to approach games from a different perspective, stating that "the computer game for all practicality *can not* tell stories - the computer game is simply not a narrative medium"[120]

Instead, games were perceived as rule-based systems, contrary to the narrative possibilities of storytelling media. The rule-based nature of games was not conceived of as heightening the narrative possibilities of the media, but as the ability to render possible player action: "If I throw a ball at you, I don't expect you to drop it and wait until it starts telling you a story"[121]

Since the early and fervid days of this discussion, it has become clear that the narrative possibilities and the rule-based character of a medium are not so much of an antagonism. Currently, the narrative potential of rule based-systems is widely acknowledged and regularly leads to exciting new concepts and findings. Not only has it become obvious that any methodology aiming at the analysis of games' narrative qualities must take into account the rule-based nature of the medium, it has even been argued that games can be viewed as narratives in regard to a completely new kind of story: the story of systems rather than events.

> "In Persuasive Games, I advance a theory of how videogames make arguments and influence players. Games represent how real and

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120 Juul, Jesper: "A Clash between Game and Narrative - A Thesis on Computer Games and Interactive Fiction", Copenhagen, 1999.

121 Eskelinen, Markku: "Towards Computer Game Studies", in: Wardrip Fruin, Noah / Harrigan, Pat (Ed.): "First Person - New Media as Story, Performance, and Game", Cambridge, M.A. / London, 2004, S. 36.

> imagined systems work, and they invite players to interact with those systems and form judgments about them".[122]

Representation

Still, the narrative concepts searched for in computer games are thought of in a representational way, the medial implementation of a content being a representation of the author's conceptions, while the process of uncovering the resulting 'stories' or 'systems' is thought of as an unveiling of the underlying information. Embossed by a semiotical understanding, narrations are still regarded as codes to be deciphered, enabling a a process of unraveling which may be successful if the information is recovered, but may fail if there are flaws in the representation or in the process of decription. The material is analysed in order to recover "what is behind" the representation, what it might convey.

While the paradigm of narrative representation has proven useful in examining a multitude of phenomena, it might not be the only viable way to deal with the relation of narrative and games. Concerning questions of the narrative potential of gameplay experience and re-tellable events, a representational model might not even be viable anymore in providing a way to understand the phenomena we perceive in a satisfactory way: if games' narratives are thought of in terms of semiotical representation, reducing the narration to the interpretation of signs implemented in the game product, how does this account for the multitude of

122 Bogost, Ian: "Persuasive Games - The expressive Power of Videogames", The MIT Press, Cambridge, M.A., 2007.

possible narratives arising from the course of game actions[123], which again are a result of players' decisions, which again are dependent on the players' attitude towards the game rather than the decisions of a game designer?

In the following, I will argue that a constructivist model of games might present a useful alternative to representational thinking when it comes to the relation of games and narrative. This approach is based on the assumption that game narratives can be understood as cognitive realities constructed by the player; narrative, in this model, is not developed by a game designer, then embedded into the media product, and finally deciphered by the player by means of interpretation.

Rather, the player is confronted with what could be described in terms of first order realities: the game mechanics - or to be more exact: the experience of the game world's characteristics as she can perceive them by interaction -put the idea of players in compliance with the characteristics of an operating observer.

The interaction with the gameworld according to its rules and mechanics can lead to a multitude of different gameplay events. But these events still can be perceived as first order realities: it can empirically be observed by anyone that a certain gameplay run led to a certain outcome, as long as no values are applied. Only when the events are interpreted by the player in order to make sense, they become second order realities, interpreted events that are understood in terms

123 for the differentiation between a game's embedded, enacted and emergent narratives see: Jenkins, Henry.: "Game Design as Narrative Architecture", in: Wardrip-Fruin, Noah; Harrigan, Pat: "First Person - New Media as Story, Performance, and Game", MIT Press, Cambridge, M.A., 2004, p. 118-130.

of making sense within a set of values and beliefs: cognitive realities, or (player-) constructed narratives.

The creation of meaning by the player cannot be understood in semiotical terms, as it is a construction based on the player's active engagement with the game world's possibilities. How the player will interact depends on the player's expectances, her values and beliefs and her efforts to make sense of her own actions in the game world's context.
The combination of empirically perceptible first order realities, the player's attitude towards the game defining her role as an operative observer, the game context providing feedback which affects the viability of her actions and the final interpretation of events as realities of second order enable the construction of game narratives by the player.

1.4.2 Constructing game narratives

In the following case study, I would like to show how the interaction with a game simulation, consisting of a set of system elements with pre-scripted behaviour, can lead to the construction of narratives by the player. What will be important is the fact that dramatic, re-tellable events are dependent upon the player's individual goals and perspective, which disqualifies them as narratives in a representational sense, as they can not simply be re-traced to a game designer's mind. Game designers merely set up a 'friction surface' against which the player can test the viability of her actions and interpretations.

The aim of this case study is to find a way to make emergent narrative in games accessible to methodic analysis, taking into account the multitude and subjectivity of narrations on the players' side, while still making the dependency of these constructions on interconnections with the game product itself tangible.

The Set Up

In the action-/survival horror game *Dead Rising (Capcom, 2006)*, the player's actions are represented by the character Frank West, a freelance photojournalist who is about to investigate a rumoured lockdown of the small town Willamette, Colorado. At the beginning of the game, Frank is dropped by helicopter at the rooftop of the Willamette shopping mall.

In an early cutscene, Willamette is introduced as a rather dull place, offering hardly anything more interesting to do than "kill time at the shopping mall" - a prophecy that will soon become true in the most literal sense: Willamette has been stage to a zombie outbreak, most of the townsfolk being transformed into dumb, yet deadly undead.

Shortly after the shopping mall turns out to be the key setting of the game, the player is witness to the breaking of barricades and the invasion of hordes of undead; the game clearly references George A. Romero's movie *Dawn of the Dead (Laurel Group, 1978)*, a shopping mall - based zombie drama, which plays with the idea of the undead rerturning to the place they felt happiest at when they were still alive: the buyer's paradise of the shopping mall.

When the player is informed that Frank will be picked up by the helicopter 72 hours later (3 days in-game time equal 360 minutes realtime, if there are no repetitions due to dying and reloading or game-pausing), the main objective becomes clear: try to survive long enough, and be on the rooftop on time on the third day, or Frank will be left behind.

In order to experience the main timeline of gameplay, there is not much more to bear in mind. However, the game offers some minor structural objectives, for example the timed execution of specific assignments that lead to what is staged as a gradual disclosure of the events that led to the horrific situation on hand; on a fictional level, this path of "finding the truth behind all this" could be regarded as a major motivation for the ambitious journalist Frank.

What I would like to focus on is another structural objective, called "escort missions".

Escort Missions

As the player/Frank is moving around the spatious shopping mall, he is regularly being informed via radio about the location of "survivors" who are struggling for their lives in scattered spots in the mall. Every time a survivor is locaöized, the player can choose to try and reach these NPCs in a designated time and rescue them by guiding them back to a small area beneath the roof, the "security room", which for the most part of the game is the only safe spot in the mall. Once survivors have been escorted to the security room, they are safe from any zombie attacks, and the player can watch the security room slowly fill up with happy and relieved people who don't get tired of thanking Frank for

saving their lives. (It might be argued that this makes the security room feel more and more ”homely”, representing an encouraging social environment, but this is not important for the present case study).

While the increasing number and strength of zombies (together with a few other additions gradually increasing the difficulties presented by the game), one of which will be mentioned later) makes it hard enough to move through the shopping mall alone, escorting survivor-NPCs provides an even bigger challenge. Survivors are less self-reliant than Frank, which makes them easy targets for the zombies, and they do not always act as prudently as one would wish. They keep getting killed or turned into undead on a regular basis, and sometimes the hardest part for players doing escort missions becomes avoiding to kill the survivors herself, as they tend to show up in the most inappropriate spots, therefore risking being accidentally cut up by Franks own chainsaw (or whatever tool he’s using at the time).

The ‘chaos’ that is represented by escort missions is increased by two factors: first, there is usually more than one survivor to be rescued. Second, every survivor-NPC is provided with a different behaviour, which makes every survivor require a slightly different strategy in trying to rescue them. In combination, the player more often than not finds herself entrusted with the lives of a disorganized bunch of hard-to-handle people, running to and fro in order to safe the stragglers, while hoping that the more hasty don’t rush into certain doom.

While it may be argued that escort missions are just a spice-up to the gameplay, as none of these missions are obligatory in order to keep playing, I would con-

sider escort missions an integral part of the game. Not only do escort missions provide a relevant source for experience points, therefore advancing the player's avatar, providing him with necessary upgrades for the harder stages of the game (leveling up gives the player additional hitpoints, skills or inventory slots); more importantly, on a fictional level, escort missions may even be regarded as the most significant aspect of the game considering Frank's evolution as a character: in a very early cutscene, Frank meets a group of about a dozen people who are trying to defend a barricade at the shopping mall's entrance, thereby preventing the zombies from entering the mall. As the barricade finally breaks, the player is witness to the deaths of the barricade builders, without the game providing any way to come to their help. The player's only option is making Frank run for his own life. While the player may be concerned with these people's fates, Frank's only concern is to safe himself.

When in the next cutscene Frank is asked about the whereabouts of the barricade builders, he can only stutter: "I don't know... I hope they got away...", followed by a long, embarassing silence. The player's knowledge that all these people have died while Frank was standing right next to them increases the displeasing intensity of the scene. On a fictional level, this implies 'responsibility for other people's lives' as a major theme for the rest of the player's game.

Seperating first order realities and pseudo-social context

The description of the basic setup - while already limited to certain aspects relevant for the following example - contains information about empirically perceptible first order realities, as well as hints to the pseudo-social context provided by the game world.

First order realities include the gameplay possibilities: the player is able to control a character, interact with zombie enemies by killing them, she gets information about her own hitpoints up to the point of dying, and interaction with survivor NPCs allows for different outcomes defined by the death or survival of these NPCs. All these elements refer to the basic mechanics of the game, guided by the game's rules: if a survivor-NPC is hit by zombie enemies several times, the NPC 'dies', meaning that interaction is no longer possible and the NPC cannot be escorted to the goal-area of the security room.

These elements can be perceived by any player or observer, irrespective of the values, beliefs or expectances the observation is guided by.

Contrary to this, the suggestion of Frank being a daredevil photojournalist, the implied self-evidence of the game events as a killing spree ("Kill-time at the shopping mall") or the motif of responsibility for others are open to interpretation.

These fictional elements provide a pseudo-social context: a framework against which the player can test her construction of second order realities before deciding upon these constructions' viability. Contrary to the demands of first order reality, second order realities - which are to be argued as specific game narratives contrary to representational narrative - cannot be right or wrong. They can only provide interpretations viable for the player, or fail to be satisfying in this regard. The viability of the player's construction of second order realities is dependend on her reaction to the context provided by the game world (substituting social mechanisms of feedback and sharing beliefs): can the player arrange a cowardly playstyle with the game's assumption of Frank being a daredevil

character? Can she arrange with the sacrifice of survivors when Frank's responsibility for others is demanded for on a fictional level? Maybe she can, but the pseudo-social context provided by the game must be taken into account in order to do so. Killing survivors on purpose is not irrespective of the demand for responsibility, it is a revolting act, and may as such prove a viable strategy, implying that she chooses to play Frank as not complying with the standards others impose on him.

But the set up does not yet contain any actual game events. It does already include a fair amount of narrative elements, but not in terms of game narrative; before game specific narratives can arise, the player needs to interact with the game world's elements in order to create these events as a combination of the game world's possibilities and her own behaviour in regard to these events. In order to explore game narratives, it is necessary to examine the actual gameplay arising from the basic set up and the narrative possibilities it allows for.

Rocks and Hard places: players' decisions

In the following, I would like to examine a specific set of escort missions in regard to different outcomes and the narrative space that it is opened up by their enactment, as the behaviour of the survivors, the spatial set up and the scripted events connected with these missions will later be argued to be the elements that form the possible gameplay experiences and resulting narrative interpretations.

All the missions to be described here are accessible on the afternoon of the first day (in-game time), and are thereby mostly combined with one of the "cases" of the continuos background objective; however, as these cases are not a relevant factor in the designated section of the game, they will not be subject to further analysis.

The detail in which these missions and the related NPC-behaviour is described is due to the relevance of these elements and their combinations for the multitude of gameplay enactments and the resulting narrative interpretations, as will be argued below.

Escort missions: mechanics in terms of first order realities

In a first segment, I will refer to the basic elements of the escort missions and the NPC survivors involved regarding the behaviour of system elements without augmenting them with player-centered values, thereby constituting empirically perceptible elements in terms of first order realities. I will, however, hint at the fictional properties of these elements arising from their basic features on a level of game mechanics, especially in regard to NPC behaviour.

Image 1: Map of the Willamette Shopping Mall (*Dead Rising, Capcom, 2006*)

Escort Mission 1: Barricade Pair A / B

At about 4 pm in-game time, Frank receives a transmission hinting the player at two people barricading themselves in a clothing shop in Al Fresca Plaza. Arriving at the designated spot, the player needs to remove some pieces of furniture that form the barricade before entering the clothing shop and meeting Burt and Aaron. Unluckily, while Aaron is cowering behind a shop counter, Burt mistakes Frank for a zombie and starts attacking him. In order to talk to Burt, and

thereby convincing him and Aaron to let themselves be escorted to safety, the player first needs to beat up Burt quite a bit, until he gives up the fight and is willing to start a conversation.

This is easier said than done, as the hits need to be concerted carefully: if Burt is hit once too often, he panicks, and any chance to talk to him is forfeit. And if too powerful a weapon is used, Burt is easily killed, which again makes the successful completion of the mission impossible.

After Burt is convinced, however, Aaron instantly follows; the player can try to escort both survivors to the security room.

NPC behaviour: Burt

Burt is easy to handle as an escortee. The player can equip him with a weapon of choice, and Burt will make efficient use of it. If asked to move to a certain location, he will promptly obey, trying to avoid most of the zombies in the way. In case of a skirmish, Burt will aid Frank as well as any other escortee. On a gameplay level, Burt is self-sufficient, acting in a way that may seem exemplary for efficient playstyle. On a fictional level, Burt could be described as heroic, taking responsibility for others while taking good care of himself.

NPC behaviour: Aaron

While Aaron, like Burt, can be equipped with any weapon the player sees fit, he will hardly ever use it. Aaron acts like he's scared (who would hold it against him), moving slowly and staying behind, being constantly held up by zombies

and getting involved in annoying skirmishes. As he is hardly ever defending himself, he is dependent on the player (or Burt) to save him, making him an additional challenge in the mission rather than an asset on the level of gameplay. On a fictional level, Aaron represents a cautious, even cowardly character, who tries best to keep pace, but always ends up causing trouble for himself and others.

Escort Mission 2: A Mother's Lament

After 5 pm in-game time, a woman named Leah can be found hiding in a jewellery shop in Al Fresca Plaza, just across the clothing shop Burt and Aaron were just picked up. Leah seems rather distressed, and after Frank has talked to her a little, the player learns of her tragic fictional background: she has just lost her baby-daughter to a zombie attack. Still, the conversation ends with Leah joining up with Frank, and with the player now being responsible for the safety of three survivors.

NPC behaviour: Leah

According to Leahs distress on a fictional level, on the level of gameplay her behaviour is discomposed and erratic. Although she essentially follows given directions, she does so in a dazed and circuitous manner, which makes her a favoured target for zombie attacks. Relying on her ability to move by herself usually ends up in her death, so the player needs to be constently aware of her position and surroundings.
Contrary to Burt and Aaron, she cannot be equipped with any weapons; instead, the player can decide to let Frank carry Leah on his shoulders, which will

happen a lot, since it is an obvious reaction to her inability to successfully navigating through the zombie hordes on her own.

Carrying a person in the game is a trade-off: on the one hand, zombies do not attack Frank while he is carrying somebody as long as he doesn't stand still. On the other hand, carrying a person prevents Frank from fighting enemies, thereby making it harder to take care of the other survivors' safety. While carrying Leah, Frank can move fast and safe, while the rest of the group is all the more in danger of ending up far behind and on their own.
On a fictional level, Leah represents the helpless victim, a wounded sheep in desperate need of a shepherd. Contrary to Aaron, whose inaptitude is part of his personality, Leah's tragic situation sparks sympathy and understanding for her ineffectiveness; her death cannot be vindicated by the awkwardness of her own actions, as it is Frank who is perceived as the one responsible, not Leah herself.

If the player decides to rescue Burt, Aaron and Leah, it doesn't matter in which order the survivors are picked up. But it is of importance that even reaching the locations where the survivors are found provides a strenuous task: at this point of the game, no area can be reached without straining fights against immense numbers of zombies, and even keeping Frank alive is not to be taken for granted. As soon as one group of survivors is picked up, taking care of them becomes an additional challenge. No matter whether the player needs to talk to Leah while being responsible for Burt and Aaron, or whether it's the other way round, it is a real challenge to pick up any survivors while at the same time protecting those already part of the group from being killed. Hence, at this point

the loss of any of them could already be experienced as a setback, an opposition to the player's efforts.

However, as the direct way from Entrance Plaza to Paradise Plaza (from where the security room is accessed) is still locked at this point of the game, the only way to guide the survivors to safety is to leave Al Fresca Plaza at the south exit to the Food Court, then leaving the Food Court and crossing Leisure Park, re-entering Paradise Plaza and reaching the access to the security room.

Escort Mission 3: Rescuing Sophie

When Frank exits to Leisure Park after picking up the escort quests, a cutscene starts, and the player learns that a group of escaped convicts have hijacked a military jeep, and are ruthlessly hunting for zombies and civilians alike in Leisure Park with a machine gun.

The convicts' current victims are a young woman and an elderly man (maybe the woman's father), the latter being shot by the convicts in the cutscene. When the cutscene is finally over, the young woman (her name is Sophie) is running from the convicts, across the park from where the player finds himself/Frank.

The only way to save Sophie is to ask her to join Frank (and the other survivors), and in order to do so, the player must navigate Frank straight across the park, literally running after her, thereby forcing him and the escortees to take a considerable detour from the direct path to Paradize Plaza and the security room. If Frank reaches Sophie before she is killed, she instantly joins the escort group.

NPC-behaviour: Sophie

Though her character represents a state of slight shock, Sophie is slightly better at finding her own way than Leah or Aaron; still, she is not as self-sufficient as Burt. From time to time she panicks and doesn't move on, requiring the player/ Frank to hold her hand and guide her a few steps before she will walk on her own again. The option to hold her hand replaces the option to equip her with a weapon, so she doesn't help in killing enemies either. The necessity to hold her hand from time to time presents a difficulty in two regards: first, the player can either carry Leah or hold Sophie's hand, thus anytime the player helps out Sophie, Leah is left staggering on her own, putting her life at risk.

Second, holding an escortees hand does not hold advantages like carrying them does: while fighting is not an option, similar to carrying a person, Frank and the escortee can still be attacked by enemies. Every time Frank or Sophie take damage from zombies or convicts, Sophie lets go of Frank's hand, allowing him to fight, but at the same time requiring him to return to Sophie immediately to take her hand again if she is to move on. The same situation arises if the player accidentally runs Frank/Sophie into any kind of obstacle. This makes the process of guiding Sophie to the security room a difficult and annoying task in itself, while adding to the difficulty of taking care of the other escortees at the same time.

On a fictional level, Sophie represents a different kind of victim than Leah does. She is a young girl, with all her life yet to life, while Leah's life has just been shattered to pieces by the loss of her baby daughter. Accordingly, Sophie's

movements may be a little insecure, but instead of requiring constant assistance, all she needs is a little push from time to time before she can carry on on her own. While Leah's death may be exerienced as the tragic end to a tragic story, losing Sophie would all the more seem senseless and undesirable.

Getting personal: Bringing them all back home

While these are only the basic elements of the game simulation, the actual gameplay events arising from this setup can vary in a broad range, before they can be interpreted by the player as a narrative, thereby being constructed as second order realities.

As an operative observer, the player has to interact with these basic elements in order to experience the gameplay events, the interaction being predetermined by the player's attitude towards the game arising from her disposition to the game world's pseudo-social context.
In my attempts on the escort missions I tried to be largely in accordance with my perception of this pseudo-social context, my basic strategy guided by my desire to play Frank as a responsible character, protecting the weak and saving as many survivors as possible.
Thus, the resulting goal embossing the basic strategy was to pick up all 4 survivors and get them to safety.

The basic strategy (the 'ideal run')

In all of the following gameplay runs, it was my strategy to pick up Burt and Aaron first, as their NPC-behaviour (especially Burt's ability to watch out for

Aaron to a certain degree) made it possible for them to watch out for themselves while I was talking to Leah. When all three had joined, I tried to guide them to the Food Court safely, which meant carrying Leah to the Food Court entrance first, then clearing a path through the zombies back to Burt and Aaron, the latter mostly being held up by groups of zombies, while Burt stayed with him and did his best to repel the rush of enemies.

The Food Court itself presents a minor goal in the strategy, for it allows to regroup the survivors, replenish their health and re-equip weapons; upon exiting the Food Court, however, the Leisure Park Cutscene (in which Sophie's 'father' is killed), triggers the convict's assault and therefore the countdown for the rescue of Sophie.

In Leisure Park, my next goal was to reach Sophie while carrying Leah, hoping that Burt and Aaron would be able to follow; while the exit to Paradize Plaza (the next stop before the access spot to the security room) is just a short run from the Food Court, picking up Sophie is a considerable detour, greatly increasing the risk of losing one of the other survivors to attacks by zombies or the convicts.

After picking up Sophie, I would try to lead the four survivors to the entrance to Paradize Plaza, which again is easier said than done, as the entrance is overrun with zombies by the time, making it necessary to clean up the area before it is possible to enter the Plaza.

Paradize Plaza itself should be the easiest part of the run, as the area is well known at this stage of the game, and while there is the usual amount of zom-

bies to be taken into account, there are no additional obstacles. The crossing of Paradize Plaza mainly involves the basic game tactics of clearing paths through zombie hordes while at the same time sending the survivors to those spots already cleared, until everyone is gathered at the entrance to the warehouse, the access area to the security room.

Getting real: the gameplay runs

In the following I will present several actual gameplay outcomes arising from the basic situation, before they will be interpreted in regard to their narrative value. The events constituting these gameplay runs could still be described in terms of first order realities by an observer, as the loss of a specific survivor at a certain point or the movement patterns of the characters can be perceived largely independent of individual interpretation. Still, it can hardly be avoided that certain judgemental attributes slip into the description, in order to make the textual account at least fairly comprehensible[124].

Gameplay Run 1

In a first run, the strategy was successful in gathering all survivors and crossing Leisure Park without significant difficulty. Real problems arised only when crossing Paradize Plaza. Though their hitpoints were mostly drained at this point due to the previous crossing of three zombie infested areas, all survivors were already gathered at the entrance to the warehouse / security room except Aaron, who fell behind and got involved in a struggle with a considerable

124 The narrative description of pre-narrativic elements per definitionem is no more than an auxiliary construction , but we need to 'work with what we've got'.

amount of zombies. While I / Frank ran back in order to save him, the other survivors become target of another group of zombies, despite of Burt's efforts to defend them. After an unsuccessful attempt to rescue Aaron, he died, leaving Frank far off from the rest of the group. The time it took to get back was enough to get all the other survivors killed, before Frank himself fell victim to the attacks.

Gameplay Run 2

The second run was similar to the first in getting all survivors to Paradize Plaza alive. Crossing the Plaza this time proved to be a little more difficult, as Sophie's panic attacks required me / Frank to take her hand more often to guide her along, hence having to stop carrying Leah, who in the meantime started staggering along on her own and engaging in skirmishes far off from the group. The constant process of switching between guiding Sophie, then looking to see where Leah had wandered off, picking her up and carrying her a little closer to the warehouse / security room entrance, just to find that Sophie had been diverted by zombies again lead to a great deal of disarrangement; in the general confusion, I lost track of Burt and Aaron, just to find that Aaron had been held up in a spot far behind, while Burt was coming to his rescue. As I / Frank was hopelessly seperated from them at that point, it took some time to reach them. Aaron could finally get rescued, but not before Burt got bitten by zombies and turned into an undead himself. This led to Burt attacking Frank on arrival, leading to me / Frank killing zombie-Burt in self-defense. As this was not an acceptable outcome (I will refer to the 'acceptable' later), I let Frank being killed by zombies on purpose in order to restart the mission from the last savepoint.

Gameplay Run 3

The third run ended much earlier than the first two.
After leaving the Food Court, I / Frank led the three survivors across the park to Sophie, who is at that time being closely followed by the three convicts in their machine-gun-equipped jeep. Blocking the road (actually, the jeep-mechanics cause the jeep to get stuck in trees or walls from time to time, in order to give the player a possibility to melee-attack the driver or gunner), the convicts get the group of survivors stuck between them and hordes of approaching zombies. As Aaron is way off again, and Leah (who had to be dropped in order to talk to Sophie), is surrounded by a group of zombies, and as the basic strategy I had chosen is to run from the convicts instead of fighting them, I decide to rescue the survivors from zombie attacks before picking up Leah again and proceeding to the entrance to Paradize Plaza. While I / Frank sucessfully tries to hold the zombies off, the convicts take down one survivor after the other, and finally kill Frank.

Gameplay Run 4

In the fourth run, I led the survivors across Leisure park to Sophie in order to rescue her. On the detour, Burt, Aaron and Leah suffered a considerable amount of damage by zombies and convicts, but it was especially the process of talking to Sophie that finally became the biggest challenge of the fourth run. While the convicts were relentlessly firing at Frank, Sophie became surrounded by a considerable number of zombies; during the time it took to get close to her and be able to click at her (in order to ask her to join) Burt and Aaron, trying to keep pace (with Burt probably slowing down in order to protect Aaron), had split up.

As Leah had to be dropped in order to talk to escort Sophie, she, too, was soon lost in crowds of zombies. While I / Frank desperately tried to get hold of Sophie's hand, the remaining escortees had already fallen victim to zombie / convict attacks. Despite the loss of the others, I decided to move on, finally managing to get Sophie to safety.

(emergent) game narratives as second order realities

While the different gameplay runs are all guided by the same set of game elements and system behaviour, and by the player's same basic strategy and goals, they still lead to different events due to the simulation's ability to create unpredictable, seemingly coincidental variations. But they are obviously not stories told by the game in a representational sense, as the distinctive elements of the runs, while dependent of the game mechanics, only take form through player interaction. But at this point, these have merely been described in their capacity of events, not as narratives.

In order to create second order realities arising from these events, hereby constructing a narrative from each of these gameplay runs, the player needs to augment them with values in her aim to 'make sense' of these events.
In any of the four cases, it is up to the player to interpret them in one or the other way, by means of giving certain elements specific attributes, and aligning the resulting narrative construction with her approach to the game world to check the viability of these narrative endeavours against what she chooses to be guiding principles of her playing experience.

In the following, I will try to give more specific narrative interpretations of the different gameplay runs, arising from my attitude as a player in taking the role of Frank in the different attempts to put my basic strategy into practice.

Narrative Interpretation, first run: the weakest link

A viable narrative interpretation of the first run could include the largely successful advancement of the group, contrasted by the failure just before the goal, caused by the frailty of one of their weaker members.

The group of survivors determinedly fought their way through hordes of zombies; working together as a group, counteracting their personal strengths against their weaknesses, seemed to provide a way to safe them all. But just when safety was finally within reach, one of the weaker members of the group fell behind. No one is left behind, so the other survivors wouldn't leave without their mate. But, alas, the delay is enough for their enemies to gain advantage, and in a furious struggle to fight for their lives, they all die together. So close! The responsible behaviour of decent people lures them on to destruction, as they risk their own well being in favour of the survival of another.

The base for this narrative construction is the experience of failure in regard to Frank's / my goal to rescue the survivors, a goal in accordance with the affordances established by the pseudo-social context of the game world. While in the early cutscene mentioned before, Frank is considered responsible for the deaths of the barricade builders, this time I try to legitimate the failed rescue mission by Aaron's inaptitude: I did my best to get the survivors to safety, but Aaron's failure to keep pace made it impossible to reach that goal. In order to make

sense of the resulting desaster, the resulting narrative construction emphazises the near success of the run, as well as putting the blame on Aaron, thereby transforming the events into a lesson about a group's dependence on their individual members.

Narrative Interpretation, second run: a heroes tragedy

Interpreted as a narrative in retrospect, one might emphasize the tragedy of Burt, whose heroic character leads him to an undesirable end.

Trying to protect the weak, Burt risks his own life, and while Aaron is indeed saved from death, Burt in consequence meets an even more horrible faith as he is bitten and infected by zombies, becoming an undead himself, and being turned into part of the evil he had fought so bravely.
Subsequently, Burt's tragedy leads to a tragic dilemma for Frank. He and Burt are tied together by their mutual heroic desire to protect the weak and save as many survivors as possible; in that, they are of the same breed. Burt is not as much a victim in need of Frank's help, but more of a companion, sharing similar values and fighting side by side with Frank, a brother-in-arms. While the loss of any other of the survivors might have been dramatic and definitely undesirable, losing Burt to the zombies and even having to kill him after he has become a soulless undead is too much to bear for Frank, leaving suicide as his only option. That all the other survivors are hereby abandoned to their fates, however, sheds a dubious light at Franks decison: he is not really as strong as he pretended to be; faced with the unimaginable, he seeks the easy way out instead of taking responsibility for those left behind. His own weakness becomes a death sentence for those still relying on him; is he really Burts counterpart, or does he have more in common with Aaron in the end?

This narrative interpretation emanates from the experienced inequity of Burt's transformation into a zombie. As Burt is not experienced as a victim, but as a hero-type character - contrary to the other survivors, who are experienced as dependent on Frank in order to survive - his death as a consequence of his endeavour to protect a weaker member of the group is experienced as a tragedy. As Burt's heroism is taken as an example for the player's intention to play and enact Frank's character, Burt's death cannot be accepted as collateral damage, but is experienced as the unsuccessful end of the mission, especially as Burt is not instantly killed, but turned into a zombie, requiring Frank / the player to kill him herself: what use is there in carrying on, trying to save some of the survivors, after having killed one of the others. Burt has met a horrible fate, doing exactly what the player is trying to make Frank do; if there was a chance to get the other survivors to safety, it would be experienced as random and erratic, as there is no reason why Frank would succeed where Burt would not.

Narrative Interpretation, third run: out of the frying pan...

A narrative interpretation of this gameplay run might be spun around the killing of the survivors by the escaped convicts, as well as the rescue of their victim, Sophie.

When all hell turns loose, a couple of survivors successfully fights for their lives against myriads of undead. But their efforts are in vain, as they are hunted down by twisted humans. The obvious danger and unnatural threats of the living dead can be overcome, just to be surpassed by the banale cruelity of fellow humans, who do not care for their equals, instead rejoicing in the sadistic pleasure of killing the unoffending. The biggest

threat to man is man himself? But maybe the survivors are themselves to blame for this tragedy: they may yet have had a good chance to get away with their lives, had not the decision been made to try and rescue Sophie. Instead of getting themselves to safety, the group took a considerable detour in order to get to her, only to be killed by the convicts because of their altruistic efforts; still, the endavour made no difference for Sophie, who was killed just the same.

While the element of malevolent humans, presenting an even greater risk than the brainless hordes of undead, is a common motive in the zombie genre, and is a constant origin of challenge throughout *Dead Rising* itself, the senselessness of their actions becomes tangible in contrast to a gameplay strategy that is legitimated by the goal to rescue surviving humans, while the enemies to be 'killed' are regarded as soulless antagonists. The endangerment of the survivors by "fellow humans" fractures this dualist interpretation. Even more, it fractures the legitimation for the objectives chosen in the basic strategy, as this strategy is to side with fellow humans in a struggle against non-human agressors, therefore emphazising a strictly partial approach to the conflict. The condemnation of the ruthless convicts, however, is contradicted by the assumed cause of failure in this gameplay run: in the end, it is the survivors' altruistic ideals that leads to the decision to risk their own lives in order to safe Sophie and, therefore, to their demise. From a metaphorical perspective, the survivors are killed by their own compassion, and even worse, their sacrifice is to no avail.

Narrative Interpretation, fourth run: the lost sheep

Even more than in the third run, Sophie might be considered a key factor of the narrative in the fourth:

The group decides to risk their own lives in order to rescue the young girl, Sophie, who obviously has no chance of escaping the convicts on their own. Again, this is more than a hypothetical danger, as the other survivors, one by one, get killed trying to save Sophie. But this time, their sacrifice is not in vain: while the others die, Sophie can be saved. Instead of giving up, Frank (the player) grabs the young woman's hand and leads her to safety: the deaths of his companions will not be meaningless. Frank and Sophie will have to deal with the failure to save the others; their friends have died so they could live. And so they would.

It has to be noted that, while the first three runs led me to returning to the last save point and retrying the mission, I continued playing after the fourth and last run. Although the initial goal of the base strategy - the rescue of all four survivors - had not been reached, the rescue of Sophie obviously sufficed in order to be satisfactory. While I / Frank had to deal with the loss of the three other survivors, it was exactly their deaths that made me experience the rescue of Sophie as the main objective. While the deaths of the other survivors in the other runs disavowed my / Frank's capability to play a meaningful role in the game context, carrying on thereby not being experienced as a viable course of action, the deaths of Burt, Aaron and Leah in this run were legitimated by the endeavour to rescue Sophie, thereby gaining additional impact as pseudo-social factors. On a gameplay level, the experience should have been even less satisfactory than the second run, in which only one survivor had been lost; yet, the construction of narrative as a second order reality led to a shift in values in the mission, not only affecting re-tellable events, but also gameplay decisions.

1.4.3 Summary: making contingencies tangible

An analysis of emergent narrative in a specific sequence of *Dead Rising* has shown that a multitude of emerging game narratives arising from subjective player interpretations can still be linked to the basic setup of the game. While the examined gameplay events and narrative interpretations are only a limited assortment of a multitude of possibilities, thereby constituting only a few viable paths through the game's possibility spaces, it could be illustrated that these paths are subjective, but in no way coincidential.

Perceptions on the level of first order realities are interpreted according to the player's values and beliefs, and the resulting attitude tested against the possibilities and limitations of the game world. The ensuing operations and interactions with the gameworld in turn constitute gameplay events, which again are subject to the player's interpretation, forming recursive processes of constructing meaningful cognitive realities of second order.

As a result, the 'narrative content' of a game can not be assessed in terms of representation, distinguishing games from traditional, non-interactive media, in which the idea of 'representation' can mostly be regarded as a viable concept. Instead, a methodical assessment of games' narrative potential must take the contingent character of this media into account, and consider the recursive interplay between players' interpretations, values and beliefs and the constitution of gameplay events through players' interactions with the game world.

In order to make this interplay more tangible, the next part of this thesis will therefore examine the relation between the terms and conditions of games (and

mediated events in general) and the player's values and believe as constituting preconditions for the emergence of 'experiences'.

Part 2:

Constructing (Gaming) Experiences

"Let me paint you a picture:
My knights will skirmish.
Lanes of power will open up
to my bishops and rooks.
Pawns will naturally be forfeit.
I'm even prepared to sacrifice my queen
because I assure you,
my goal will be attained at any cost:
The King must die."

(Mark Frost / David Lynch)[125]

Games cannot simply be distinguished according to the fictional topoi they employ, but by the way these topics are modelled as systems in the game, and by the resulting set of possible actions and decisions leading to gameplay experiences.

Similar to genre classifications regarding traditional media, classifications of "game types" are problematic and incoherent, as the criteria for these classifications vary depending on the focus underlying the classification attempt: sometimes games are classified in regard to their fictional layer (zombie games, pirate games, science fiction games), sometimes in regard to the game interface and modes of interaction (first person shooters, third person strategy games,

[125] *Twin Peaks*, Season 2, Episode 18 (Lynch/Frost Productions, 1991)

stealth games, racing games), sometimes in regard to the intended effect on players (horror games, party games, educational games).

When it comes to the different experiences encouraged by a specific game, a focus on the game's fiction may be regarded as unessential at best, and in some cases even as misleading. When players engage in a game, and the game 'unravels' its inherent meaning, this meaning is not so much determined by the fictional guise of the game world, but by the possibilities of action and consequence provided by the game's mechanics because, as Soren Johnson points out, a game's "theme" is not its "meaning":

> "Ultimately, designers need to recognize that a game's theme does not determine its meaning. Instead, meaning emerges from a game's mechanics - the set of decisions and consequences unique to each one. What does a game ask of the player? What does it punish, and what does it reward? What strategies and styles does the game encourage? Answering these questions will reveal what a game is actually about."[126]

Still, while a focus on the game's mechanics alone may provide a more adequate approach to the game's inherent meaning, a preliminary answer to the question 'what is a game actually about?', this focus does not account for the multitude of ways players may experience this 'inherent meaning'; it is a focus solely concerned with meaning embedded in the game artifact, enabling a 'close reading' adequate to the specific nature of the media, but disregarding the various possibilities on the players' side to confront this meaning, to make sense of

126 Johnson, Soren: "Theme is not Meaning - Part I", in: Game Developer's Magazine, Vol. 17, No. 2, February 2010, p. 44.

and appreciate it, or to give it a twist that suits or challenges their own desires, assumptions, values and beliefs.

In the following, I will try to approach games with a focus on player experience: taking the player's perspective into account, it is not only the fictional layer or the designed structure of the game that accounts for the ways a player is involved in the game. As argued in the last chapter, the experience of playing a game is a result of these possibilities of action and decision enabling the player to confront a topic as a participant, the game's requirements thereby confronting the player's wishes and desires, her fears, hopes, assumptions and suppositions.

In digital games, the player can make use of the game as an occasion to test her values and beliefs against an unbribable framework of fixed relations of action and consequence by re-arranging familiar strategies, developing new ones and maybe even being forced to challenge her hitherto beliefs[127] - a challenge that is more easily accepted in games than in real life, as the experience is framed as being "only a game".

Nonetheless - and here Soren Johnson's argument must be picked up again - the possible values, beliefs, assumptions and strategies that a player can test and develop in a certain game are not arbitrary. Different game mechanics convey different possibilities for this kind of experience. Even if many games are seemingly "about" killing monsters, the way the game is designed, the mode which

127 see: Mitgutsch, Konstantin: "Learning through play - a delicate matter. Experience-based Recursive Learning in Computer Games", in: Fromme, J.; Unger, A. (Eds.): "Computer Games/Players/Game Cultures: A Handbook on the State and Perspectives of Digital Game Studies", Springer, New York, N.Y., 2011.

is employed in order to diminish the entities on the screen, will decide what actual experience spaces are made possible, and which experiences are not fostered by the game. And while the fictional layer of a game may not necessarily reflect the meaning conveyed by the game system, it seems that coherences or deviances between the game's mechanics (its "meaning") and the game's fiction (it's "theme") may also make a difference for the accessibility of the 'experience spaces' the game suggests and makes available for the player.

The following chapters evolve around the assumption that a player-centered approach to games necessitates a focus on the experiences enabled by a certain game, which are not solely dependent on the content provided by the game's fiction or its mechanics, even if this content may expand or limit the spaces of experience offered to players. If the guiding question is to be "Why do people play computer games?" it does not suffice to look at the game products and their specific features alone. Instead of asking "what is this game people are playing?" it has to be asked "what do people get out of playing the game?".

This kind of question cannot be answered in purely descriptive terms, and is prone to a certain degree of speculation: what one player "gets out of the game" might drastically differ from another player's experience, while a third might not make sense of the game at all. However, as has been argued in a previous chapter, a certain game - just like a certain narrative - can suggest a contingency field of possible experiences, which can be traced out and - to a certain degree - described.

Experiences outside this contingency field are always possible and probable, and the idea that a game's elements could prohibit any experience from arising does not seem viable in any way.
But if the question aims at how the game enables experiences ("what do players get out of playing the game?"), it *can* be discussed in what ways a game's features can specifically support certain experiences, while not backing up others.

However, as the experiences resulting from playing a game can only be argued as a contingency field rather than a specific experience, it seems futile to try and conclusively single out the experiences that may arise from a game's features without finding a way to separate the experiences suggested by the game from those that are not actively supported.

In order to build a conclusive argument, these questions will be approached by means of three case studies, which will not exclusively focus on game experiences. In a first case study, which will evaluate the events of September 11th 2001 as an example for mediated experiences, I will try to develop a definition of 'experience' that enables a differentiation between 'features' which enable and support experiences on the one hand, and of the actual experiences which result from a certain approach to these features on the other. This distinction will be based on the seperation of what I will call "experiential set up" and "experiential perspective". The aim of this first case study is to show that, while the mediated events of '9/11' provide an experiential set up stunningly similar to the experiential set up of the Hollywood movie *Independence Day* (20th Century Fox, 1996), the experiences suggested by these media events are quite different due to the respective experiential perspectives applied.

The second and third case study will focus on a more fictional topos of contemporary western culture, namely the 'contemporary zombie topos'. As a deficiency analysis rather than a positivistic approach, these two case studies will evolve around the observation that - although the contemporary zombie topos is just as relevant to the world of computer games as the genre of roleplaying games is - no single example for a digital roleplaying game building upon the post-Romero zombie topos exists.

I will argue that this is not coincidental, but due to the very different contingency fields of experience opened up by digital RPGs on one hand, and the contemporary zombie topos on the other: while the structure of survival horror games supports an experience adequate to the idea of 'horror', the experiences supported by the mechanics of RPGs call for a fictional layer that seems almost contrary to the 'horror' of a zombie outbreak molded after Romero's take on the topos.

Applying the conception of experiences illustrated in the first case study, the second case study will therefore examine the features of the contemporary (post-Romero) zombie topos in order to reveal its experiential potential: it will be argued that the zombie topos can be seen as an epitome of 'horror', achieving the effects that characterize the 'horror experience' (which will also be more closely defined by discussing the idea of isolation and societal breakdown), and it will be shown that this effect is not achieved by narrative strategies, but by the experiential set up of the topos itself.

Finally, the third case study, which focusses on different 'actions and consequences' made possible through game design strategies, will show how typical

survival horror games open up contingency fields of experience very different to those suggested by Roleplaying games by examining some of these games' fundamental features on the level of game mechanics. It will be argued that the gameplay experiences enabled by survival horror games are closely related to the fictional experience of isolation and societal breakdown suggested by the modern zombie topos (and the horror experience in general), while RPGs aim at a very different, almost contrary experience of society and its demands - a difference which may provide an explanation for the absence of the contemporary zombie topos in Online Roleplaying Games.

2.1 Breaking Down Experience

In the following, I would like to break down the concept of "experience" in two different elements, which I will call "experiential set up" and "experiential perspective".

The term "experiential set up" aims at a level on which certain elements are conceived as 'events', and interpreted according to the way these elements are related, but opening up a contingency field of experiences *before* values and beliefs are applied and a perspective on events is taken. The idea of 'experiential set up' again equates the constructivist notion of 'first order realities' - social

constructions which allow for similar observations as long as an agreed upon mode of observation is applied [128].

In a constructivist sense, the idea of a "set up" does not imply that this set up does exist apart from social and individual constructions. It does, however, not matter whether the set up is 'real' or 'taken for real' in order to provide a contingency field for later experiences.

"Experiential perspective" is designated by the application of values and beliefs to the experiential set up, thereby narrowing down what has been a contingency field of experience to a specific experience. This concept conforms with the notion of 'second order realities' - constructions which are dependent on subjective concepts of values and beliefs [129].

Both aspects are necessary for the realization of experiences. Taking the combination of an experiential set up ("what do I confront?") and an experiential perspective ("how do I confront it?") into consideration, can provide a viable understanding of how players construct experiences resulting from their interactions with a game's system.

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128 see: Watzlawick, Paul: "Wirklichkeitsanpassung oder angepaßte "Wirklichkeit"? Konstruktivismus und Pychotherapie", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 91.

129 see: Watzlawick, Paul: "Wirklichkeitsanpassung oder angepaßte "Wirklichkeit"? Konstruktivismus und Pychotherapie", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 92.

2.1.1 Experiential set up

When the concept of experiential set up is taken into consideration, it becomes obvious that such a set up may be sought after in any kind of experience. While this is a study about computer games and their players, and not about experience in general, it is nonetheless worth taking a look at the experiential set up of narratives in traditional media. In an earlier chapter it has been discussed that many game scholars have argued the basal difference between games and narratives, and this study's approach aligns with this notion. But when the set up of gaming experiences is examined, a missing link may be argued, through which narrative media and gaming media may relate more closely to each other than on the level of the media products themselves.

A zombie game may not "tell a story" about zombies, but the zombie story and the zombie game may both enable the confrontation with the same topics on the level of their experiential set up (as will be argued later in this chapter). This is even more important when the fictional level of games is taken into account: on a gameplay level, a game may be something completely different than the "story" that's told through the game. But the experiential set up of the game may or may not be consistent with the set up of the game's fiction.

Before the correlation between games' and narratives' set up is discussed, it needs to be examined how the experiential set up of narratives can be grasped.

The story of Romeo and Juliet, for example, can be considered as the story of two people, a man and a woman, who fall in love with each other and - lacking a shared perspective for their love in life - end up killing themselves out of the

desire to be united in death at least. So far for the specific story of Romeo and Juliet.

But the specific story is not what we care about: Romeo and Juliet are fictional characters, and even if they were not, they are not part of our real lifes, and more importantly: they are not us. Juliet's pain is not ours, Romeo's love is something we may or may not believe and understand, but it is not us who are in love with Juliet. Why bother?

But the experience of watching, reading or thinking about the story of Romeo and Juliet is not simply about these two people and their emotions. It is an occasion to confront our own concepts of love, loss, desire and futility. On this level - the experiential set up - we are not engaged in other people's lifes, but in a situation in which our own constructions about life and ourselves are challenged. "What if it happened to me" is much more than a hypothetical question, it is a possibility to experience my own attitude towards life and its possible pitfalls. When an experiential set up takes the shape of a concrete narrative, this narrative is not just a vehicle for these experiences. The form in which the story is presented also determines how we approach the experiential set up, or put in a more basic way: how good we can take it. The elements the story is constructed from, the setting, the modes of narration all convey codes to frame the experience, most importantly by attaching it to cultural codes of interpretation, jostling the experience in a certain direction by connecting it to a culturally embossed context.

But even when an experiential set up has been formed into a narrative, even when cultural codes have been attached and the arrangement of events sug-

gests a certain experience, a discussion of these elements alone only takes into account the possibilities of narrative and media. A thorough discussion of the construction of experience, however, cannot disregard the many ways an experiential set up - even in the form of the same narrative, the same mediated event - can be approached by different individuals. The experiential set up presents mere building blocks for a later experience. The way this transformation takes place is dependent on what I would like to call experiential perspective.

2.2.2 Experiential perspective

The experiential set up of marriage, for example, may be defined by matters of shared income, adjusting perspectives to find common goals, establishing trust between two partners, and generally adapting a way of life that aims at actively spending one's lives together. This set up can be established as part of a social agreement on what marriage is supposed to be, being reflected in laws regulating the terms of marriage, in movies dealing with happy or unhappy marriages, and in recurring mechanisms of everyday debate.

But agreement on the terms of marriage, the experiential set up that is socially defined as forming the concept of marriage, does not result in a common experience. While some may experience this set up as the most romantic and desirable thing possible, it is the same set up that scares or disgusts others, turning the idea of marriage into a 'sword of Damokles', threatening their idea of happiness.

This is a difference of perspective, and this perspective is not only one of different individuals. In the Musical My Fair Lady, streetwise Alfred P. Doolittle is introduced by singing about his views of life. Regarding marriage, he sings:

> "The gentle sex was made for man to marry,
> To share his nest and see his food is cooked.
> The gentle sex was made for man to marry-but
> With a little bit of luck, With a little bit of luck,
> You can have it all and not get hooked."[130]

Later in the musical, his perspective seems to have shifted significantly. While there is no notion whatsoever that Doolittle might have changed his views on what marriage is, and still values the pleasures of a slovenly life, celebrating his stag night to the fullest, he seems to be overjoyed by his upcoming marriage, and dedicated not to hazard his marriage plans by any means:

> "I'm getting married in the morning!
> Ding dong! the bells are gonna chime.
> Feather and tar me;
> Call out the Army; But get me to the church.
> (Get me to the church...)
> For Gawd's sake, get me to the church on time!"[131]

As this is a purely fictional example, it is forgivable that the reasons for this shift of perspective are not elaborated on in the play[132]. It is still a precise illus-

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130 Lerner, A.J.; Loewe, F.: "With a little bit of luck", from: "My Fair Lady" (Musical), Sony BMG Music Entertainment, 1964.

131 Lerner, A.J.; Loewe, F.: "Get Me to the Church On Time", from: "My Fair Lady" (Musical), Sony BMG Music Entertainment, 1964.

132 At least not in regard to the character of Alfred P. Doolittle. The processes leading to a shift of perspective are closely examined in regard to the character of Henry Higgins, and may even be argued to be the key focus of the play.

tration that a change of perspective, while it does in no way change the experiential set up, makes a vast difference for the resulting experience.

While experience is determined by perspective and by the values and beliefs connected to this perspective, on the level of experiential set up certain elements are delineated and marked as an 'event' or, more generally, a 'topos'. The elements included in this construction of elements and the way these elements interact already specify what kinds of experiences will be viable in dealing with these events, and which will probably not work in order to 'make sense' the moment we adopt a perspective and try to make the experience work according to our sets of values and beliefs.

But the differentiation between experiential set up and experiential perspective as two elements constituting experience is not confined to the realm of what we have chosen to define as fiction.

The importance of experiential perspective may best be clarified by another example, which already takes the concept of experiential set up into account. This chapter's first case study will, therefore, examine how a shift in the experiential perspective may lead to a different experience of (mediated) events, even though the experiential set up of these events remains constant.

2.2 First Case Study:
Experiential set up / perspective of '9/11' and 'Independence Day'

Over the past decade, '9/11' has become a commonplace code in the United States and in what we call "the western world" in general. With the multitude of contexts '9/11' has become a standalone symbolical framework for, and the connotations that have accumulated around the events and consequences of '9/11', it seems almost absurd to go back and talk about the initial events occuring at September 11th 2001 that gave rise to this prominence of two simple numbers that now play a significant part in cultural and political debates in a large part of the world.

Still, as this example will focus on the (mediated) experience of events and their framing, it is the events themselves that have to be highlighted once more in order to specify what is to be exemplified; or, to be more specific, *the media events* that constitute the narrative program executed seemingly anytime the numbers '9/11' come up.

So, what is the basic setup this mediated experience consists of?

It is safe to say that when on September 11th 2001 two planes crashed into the towers of the world trade center in New York City, a wave of shock swept over the western world. It is obvious that this is not only due to the loss of lifes resulting from these events, as we seem to have developed stategies to cope with

or put aside reports of disasters and fatalities of much greater scales in daily news. Nor does the acknowledged media coverage alone - live feeds showing pictures of the towers the moment they collapsed, seemingly capturing the horror and fear of victims and witnesses as they occured - account for the incisive impact the reports on 9/11 have had on our perspective of the world at the beginning of a new millenium.

Even when it is sometimes argued that 9/11 has been exploited as a legitimation for political decisions like the patriot act, the second war in iraq or the "coalition of the willing", and taking into account that the importance of 9/11 as a legitimation for a distinctive shift in world politics might in retrospect have intensified the omnipresence and leverage of 9/11 as a cultural narrative, the question remains: what are the elements that constitute 9/11 as an event that can give rise to debates of legitimization and exploitation on such a large scale in the first place?

What is this media event, this narrative, made of, and why does it seem to touch so many people in such a dramatic way that - while there are many different opinions on the reactions following the initial events - 9/11 itself is not only an undebatably terrifying event, but seems to have become a synonym for terror itself?

2.2.1 Conception of the United States before 9/11

One thing that distinguishes the media events of 9/11 from our relative acceptance of other man-made catastrophes may be the disparity between common conceptions of the U.S. before 9/11 and the sudden notion of vulnerability that

was an integral part of the way 9/11 changed our way to think of the balance of powers in the world.

Before 9/11, the common conception about this balance of powers was embossed by the assumption that the United States of America were the last remaining "superpower". While some acknowledged the United States decisions in world politics, others passed criticism, but the guiding perspective did not question the dominant influence of the U.S. After the cold war had been declared a thing of the past, the narrative framework of the world's dependence upon the outcome or solution of the rivalty between the U.S. and the U.S.S.R. was replaced by the question of what the U.S. would make of their responsibility as the one and only superpower. In a talk held in February 2004, Noam Chomsky discusses the hegemonial position the United States has had for some time in decisions made by the United Nations Organization (UNO):

> "There's a basic problem about the UN […] there's a fundamental problem, and that is: the UN can only act insofar as the great powers allow it to; and this means primarily the United States. So the UN can act if the US authorizes it and cannot act if the US blocks it"[133].

In securing their position as a superpower, the United States' defense plans between the breakdown of the Soviet Union and 9/11 were mainly directed against military attacks from other nations (the most prominent example being the renewal of plans to establish a nationwide rocket defense system, the "Stra-

133 s.: Chomsky, Noam: "The Militarization of Science and Space", M.I.T.talk, Feb. 15th, 2004, URL: http://mitworld.mit.edu/video/182/

tegic Defense Initiative", earlier known as the "Star War" project)[134]. After decades had been under the influence of the "battle of giants" idea, the dominance of the United States in world politics still seemed dependent on their ability to defend themselves against large scale military operations, and there was hardly another nation that seemed able to compromise the United States' seemingly secure position.

2.2.2 Experiencing 9/11 as a media event: David and Goliath

When the world became witness to the Fall of the Towers in September 2001, the symbolic impact was undeniable: 'the giant is going to his knees', and it is not another giant who's bringing him down. The world's last remaining superpower is not hit by an armada of nuclear submarines or an air fleet of high tech killing machines, but by less than 20 human beings who succeeded in what is commonly called a 'surgical strike'[135].

On a basic narrative level, this corresponds to the myth of David vs. Goliath: the huge, unbeatable giant is slain by a seemingly inferior adversary, and

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134 A report on the initial Strategic Defense Initiative has been released under the Freedom of Information Act,
see: http://www.dod.mil/pubs/foi/reading_room/179.pdf

135 In a symposium held in September 2002, one year after the attacks had taken place, Stephen W. van Evera, Associate Director of the MIT Center for International Studies, points out how surprised terrorism scholars were when 9/11 turned out to be: "...a very well-conducted, well-planned attack that showed great discipline, patience, extraordinary ability to motivate and discipline cadres and keep them going in the right direction over a long period of time, be very patient, learn from past mistakes, it was a very impressive show...". "Responses to 9-11: The United States, Europe, and the Middle East", MIT Symposium, Sep. 9th 2002, URL: http://mitworld.mit.edu/video/31.

against all the odds, the weaker opponent does not only win the fight, he changes our perception of power fundamentally.

So, when on 9/11 what the world conceived to be Goliath went to its knees, the idea of the U.S. being the world's huge parental figure - loved by some, hated by others, but acknowledged in their dominant position by all - crumbled, and with it the reassuring feeling that - for better or worse - the rules of future conflicts were known and established.

The mediated perception of the western world of this hurt Goliath was guided by perspective: every reaction, every news report, the whole mediated experience was guided by the fall of Goliath and its consequences, the media narratives were ones of terror and insecurity and the strange feeling that prior assumptions were built upon loose footing.

2.2.3 Experiential perspective(s) on 9/11

If David vs. Goliath is indeed a narrative model applicable to the events and myths of 9/11, it comes to mind that disappointment of the seemingly strong is only one perspective on this narrative. David vs. Goliath is usually discussed as a story about the weak conquering the strong, more as the story of David's triumph than Goliath's fall.

Triumph, however, was the last connotation 9/11 had in the western perception, and the news reports and debates in the western world were embossed by rather different feelings. In this version of the myth, we find ourselves witness of Goliath's perspective, part of a world that was used to being more or less de-

pendent on the fate of the United States and the responsibility with which they would use their power.

But taking a step back, approaching 9/11 once again on the level of its the experiential set up, it becomes obvious that the same set up can also be experienced from a different perspective. It does not need much argumentation to say that what has been etiquetted as "terrorism" in the western world, can be (and probably was) experienced as a war of liberation by many who sympathize, identify with or even participate in undertakings like 9/11, those who experienced the United States' power not as a - desirable or problematic - comfort, but as a threat for their own values and beliefs. But even without speculating about motives or views only accessible from a cultural perspective that is not my own, it is safe to say that the same pictures that evoced terror and bewilderment for some were causing feelings of unexpected triumph for others.

In November 2001, only a few weeks after the attacks had taken place, french philosopher Jean Baudrillard published an article in Le Monde, which presented a very different view on 9/11. This different view, however, does not arise from a debate of whether 9/11 was really a terrorist act conducted by Al Kaida, or even the notion that the whole attack might never have taken place at all but might have been a hoax or conspirational deception - both being views that have come up shortly after 9/11 and stayed part of the 9/11 discourse until today[136].

136 see Suzanne Bergers report on European discourses on 9/11 and Jeremy Presmans summarization of reactions in the Middle East in the same symposium cited above: "Responses to 9-11: The United States, Europe, and the Middle East", MIT Symposium, Sep. 9th 2002, URL: http://mitworld.mit.edu/video/31. Berger specifically points out that the idea of 9/11 as a staged event was quite popular in the months after 9/11, at least in France, where Baudrillard's article was originally published.

Baudrillard neither disregards the events themselves, nor questions that Al Kaida was responsible for planning and carrying out the attacks. Still, his evaluation is not guided by shock about Goliath's fall, but shifts its perspective to the possibility of triumph about David's victory:

> "Moral condemnation and the sacred union against terrorism are equal to the prodigious jubilation engendered by witnessing this global superpower being destroyed; better, by seeing it more or less self-destroying, even suiciding spectacularly."[137]

The most heated dabates following Baudrillards article may be due to the fact that he does not simply allocate feelings of triumph to a group of fanaticist terrorists, but insinuates that these feelings were almost naturally shared by everyone else - at least outside the United States:

> "That we have dreamed of this event, that everybody without exception has dreamt of it, because everybody must dream of the destruction of any power hegemonic to that degree, - this is unacceptable for Western moral conscience, but it is still a fact, and one which is justly measured by the pathetic violence of all those discourses which attempt to erase it."[138]

While it is obvious that a far-reaching and incisive event like 9/11 can elicit a diversity of different feelings and opinions, the significance of the experience

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137 Baudrillard, Jean: "The Spirit of Terrorism", Le Monde, Nov. 2nd, 2001. Translation by Rachel Bloul. URL: http://www.egs.edu/faculty/jean-baudrillard/articles/the-spirit-of-terrorism/

138 Baudrillard, Jean: "The Spirit of Terrorism", Le Monde, Nov. 2nd, 2001. Translation by Rachel Bloul. URL: http://www.egs.edu/faculty/jean-baudrillard/articles/the-spirit-of-terrorism/

described in Baudrillard's article for the present argument lies in the fact that - while it presents an experience almost opposite to that of insecurity and terror - it still is based on the same experiential set up, agreeing on the same initial combination of elements as a starting point for evaluation.
Baudrillard's conception about how 9/11 was experienced still perfectly correllates with the myth of David vs. Goliath, the difference lies simply in a drastic shift of experiential perspective: the experience becomes embossed by David's success rather than Goliath's defeat.

Both are perspectives on the same events - the strong defeated by the weak - but it is the perspective that decides upon the actual experience - terror or triumph. The contingency field opened up by 9/11 as a cultural narrative is still the same, but depending on perspective, very different experiences arise from it.

2.2.4 Perspectives in western culture: the motion picture 'Independence Day'

But as yet, the possibility of different perspectives on the same experiential set up is only argued based on assumptions about the reception of 9/11 outside the american culture. Even if Baudrillard's argument represents a debate still anchored in what might fit the conception of "western culture", this only shows that the term "western culture" is not necessarily encompassing a homogenuous set of values, beliefs and, finally, experiential perspectives. To say the least, a french philosopher's perspective does not necessarily have to fit the one taken by the north american public, mainstream U.S. media or government officials. The difference in perspective might still be based solely on the culture it arises

from, resulting from nothing more than a difference of values and beliefs that may distinguish what we regard as one culture from another.

If the experiential set up - the concurrence of elements that establish what is later circumscribed as a specific event, opening up a contingency field of meaning even before values arising from perspective are applied to it - is to be examined conclusively, it may be useful to look for different experiential perspectives on the experiential set up that arise from the same cultural context.

Assuming that 9/11's experiential set up is conclusively identified with the reference to the myth of David vs. Goliath, it is important to point out that this experiential set up has its place in the contemporary cultural context of the western world, and is even known to the United States' cultural arsenal specifically - not only from the perspective of the giant guiding the perception of 9/11, but also from the contrary perspective of the seemingly weaker but in the end triumphant opponent.

When in the motion picture *Independence Day (20th Century Fox, 1996)* the world becomes victim of alien aggressors, the story quickly adds up to a confrontation between the United States and the alien invaders. While german-born director Roland Emmerich makes it clear that the aliens do not care about the balance of power on Earth, impartially covering the whole planet's nations with their attacks, the movie quickly focusses on the United States' efforts to fight the invaders tooth and nail - maybe an ironic statement on the previous U.S. centrism

of movie aliens, more probably a concession to a mainly american target audience[139].

Uncompromisingly, the movie establishes the alien force as superior and invincible. Without any effort, their spaceships annihilate one symbol of human culture after the other. Any attempt to defend against the attackers seems futile. Even the United States' concerted military efforts turn out to be useless - here, the superpower topos is used to heighten the aliens' superiority, as not even the collective U.S. war arsenal has any effect whatsoever on the alien forces [140]. Accordingly, the overwhelming dominance of the invaders becomes emotionally tangible when their armada is presented in relation to what we are used to regard as impressive examples of human achievement: even the empire state building looks naively fragile and small with a huge alien spaceship hovering over it.

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139 When the U.S. President (Bill Pullman), converts the american independence day to a worldwide holiday, in celebrating the worlds independence from the alien attackers, this may be regarded as a renounciation of U.S.-centric perspective on world politics. It may also be regarded as a patronising act, as it is still the american persident who presumes to declare a holiday not only for his country, but for the rest of the world. But apart from real life implications, the celebration of a new, worldwide "Independence Day" implies a triumph of the opressed against a seemingly stronger agressor, which is the key element of an experiential set up I've come to describe in terms of "David vs. Goliath" in this text.

140 Especially for moviegoers, an enemy who turns out to be completely immune to this military arsenal must seem immensly powerful. Hollywood movies of the past few decades have made a point of the almost phantasmagorical power of the U.S. military arsenal, represented in the form of nuclear weapons, all-revealing satellites or mind-controlling drugs, just to name a few. Examples include movies like *Enemy of the State* (1998), *Jacob's Ladder* (1990), *The Sum of All Fears* (2002), but do not solely focus on an arsenal directly related to military warfare: the television series *C.S.I.: Crime Scene Investigation*, *C.S.I.: Miami* and *C.S.I.: New York* (CBS, 2000-; 2002-; 2004-), present criminal cases which are invariably solved through the application of a hilariously efficient arsenal of technological reconaissance devices.

This establishes a backdrop quite similar to the backdrop of 9/11 described above: a situation experienced in terms of power and helpnessness, the antagonism between victims and aggressors. The players have changed, the United States take the role of the weaker entity this time, but - again on the level of experiential set up, disregarding the chosen perspective - the antagonism is the same, and so is the contingency field of possible outcomes: will the strong prevail, or is there still a loophole for the suppressed? Only this time it is suggested to root for the suppressed, the tension arises from our hope for change, not from our clinging to the established.

But the correlation does not end with the narrative's backdrop. Just like 9/11, the myth of David vs. Goliath only comes to realization when the seemingly weak make their stand against their oppressor and - against the odds - the giant falls. After all efforts to defeat the dominant alien foe have failed, after a large-scale military attack turns out to be just as ineffective as nuclear missiles and laser cannons, the tides finally turn.

Stunningly similar to the hijacking of U.S. airplanes on 9/11, two humans seize control over one of the aliens' own smaller vessels and with no hope of ever coming back enter the aliens' mothership - an over-dimensioned symbol of power - and defeat the enemy from within by deactivating the alien fleet's protective shields, leaving them open to attacks. The gigantic spacecraft goes down, and with it the armada of the alien spacefleet.

The victory is not one of power but of determination, as humankind celebrates its persistence against the aliens' disdainfulness - David vs. Goliath, from the

perspective of the oppressed emerging victorious. And suddenly, feelings of triumph do not seem so far off.

The correlations between 9/11 as a cultural narrative and the motion picture *Independence Day* are obvious. They did even come natural to U.S. officials after the attacks and have been perpetuated by the media. But, for obvious reasons, this official perspective immediately tried to avoid the perspective of Goliath the Giant: seizing the suggestion of the 9/11 attacks as the *outcome* of the narrative, the logical conclusion of a conflict, would automatically have suggested the legitimation of the attacks by putting the U.S. in the role of a violent agressor, and the attackers as heroic freedom fighters - a perspective Jean Baudrillard chose to promote, but understandably unviable for the U.S. administration. Instead, the attacks of 9/11 were regarded as an initial attack, establishing a conflict rather than resulting from it. As Davide Girardelli points out:

> "Intertextual references to Independence Day are [...] not only an association between mere images [...], but are also functional in framing the events of 9/11 within a consistent ideological structure. This structure provides a definition of the problem: Bin Laden, like the aliens, attacked the homeland through irrational hatred; the Other is the enemy, we are innocent victims. It also provides the remedy: Through the reaffirmation of values such as patriotism and patriarchy the Other will be defeated; War is the right path to follow to reaffirm these values because those who do not conform - such as the pacifists - will be annihilated."[141]

141 Girardelli, Davide: "'Just Like Independence Day!' - The Falling Towers On 9/11 and the Hegemonic Function of Intertextuality", conference paper presented at the annual meeting of the International Communication Association, Sheraton New York, New York City, NY, May 25th 2009.

Contrary to Baudrillard's perspective, Bin Laden now does not represent a Davidian liberation fighter, but a violent Goliath, who has yet to be defeated by David. The David vs. Goliath myth culminates in the Giant's fall as its outcome, the colported morale of the story. Taking 9/11 as the *result* of previous events would have been a miserable interpretation for the self-conception of the United States. Only establishing 9/11 as the starting point for a later victory makes it possible to enable an experience of 9/11 that correlates with the U.S. public's feelings of tragic and loss.

The reactions to 9/11 resulted from a perspective that enabled an experience on par with the experience of *Independence Day*: in both cases, it was the U.S. who were attacked by powerful aggressors, and in both cases, the aggressor was to be finally defeated. The correlation between 9/11 and Independence Day is not sought in the happy ending of the movie, as 9/11 was not to be taken as the end of a story, leaving the U.S. in the role of a defeated oppressor represented by the alien starship and triumphantly defeated in Baudrillard's sense. It is sought after in the early stages of the movie, when the Empire State building is destroyed by aliens, allowing the United States to be experienced as a victim, and the horrible events as a prelude for things to come, as a legitimation for determined action.

In a different context this would be an occasion to propose that any given conflict may not be solved based on a certain perspective, but that it is the taking of perspectives itself that establishes the conflict - therefore challenging Baudrillard's argumentation and the U.S. administration's alike for their shortfall of not taking the difference of perspectives into account and playing one against the other instead.

In the context of this case study, however, the example may be put to better use as an illustration of how experiences might be approached in terms of applying an experiential perspective to a certain experiential set up, which again is constructed by defining a certain set of elements and assumptions about their interrelation as a specific 'event' or 'topos'.

So, before moving back from experiences in general to the experience of games, what is the definition of experience that can be derived from the above argument?

2.2.5 Experiential set up and experiential perspective as building blocks of experience

According to the above argument, 'experience' may be regarded as a correlation of an experiential set up and an experiential perspective guiding confrontation with this set up.

The basic elements of David vs. Goliath, *Independence Day*, 9/11, from the perspective of the oppressed as well as the oppressors, all employ the topos of the weak battling the strong.

For the experiential set up it does not matter whether the weak defeats the strong or vice versa. It does not even matter whether we hope for the weak to persist and fear the strong might. Even before the outcome of the events is clear, and long before values are applied to one or the other outcome, the basic setup

opens up a contingency field of possibilities, thereby suggesting certain issues for later experience, and keeping others aloof - similar to the experience of Romeo and Juliet, the narrative offers an opportunity to confront certain topics, regardless of the different ways this confrontation may be experienced.

In the following case studies, the differentiation between experiential set up and experiential perspective will be used as a starting point to assess the relation between a game's fiction (it's 'theme'), the issues (or 'meanings') suggested by the game's mechanics and the resulting possibility of emerging player experience. The second case study will examine the specific structure of mediated experiences of 'horror', which will be tied to the more specific topos of the modern zombie genre, as it is prevalent in contemporary western culture. After the specific experiential set up of this topos has been investigated, the third case study will discuss different game design strategies which can either suggest an according experience, or disregard it. This discussion will highlight the design differences between Survival Horror Games and (Massive Multiplayer) Online Roleplaying Games, arguing that the former suggest an 'experience of horror' by means of implemented game mechanics, while the latter, by the way they support quite different experiences of society and culture, render a 'horror experience' much more unlikely, a structural difference which may account for the absence of the contemporary zombie topos in Online Roleplaying Games.

2.3 Second Case Study: Experiential set up of the 'contemporary zombie topos' and the 'horror theme'

2.3.1 The traditional zombie topos

The most significant aspects of the contemporary conception about zombies become apparent when compared to the traditional zombie mythology, most prominently found in Haitian voodoo culture. These poor creatures were seen less as a menace to society, than as a threat of punishment for those who didn't follow societies' rules. Usually under the spell of some kind of voodoo priest, serving them as slaves, they are unable to act on their own free will but condemned to obey their masters' commands.

While haitian voodoo may not be the first association in contemporary culture when the word "zombie" comes up, the idea of zombies as willingless victims is still common enough to make sense in popular culture. In a modern version of this traditional zombie topos, Neil Gaiman tells the story of a young man travelling to New Orleans in search of cheap thrills and the secrets of voodoo:

> "So he came into town with his Doors cassettes and his Crowley books, and his handwritten list of the secret URLs for chaos magick on the Web, and everything was good. He even got a few disciples, runaways like him, and he got his dick sucked whenever he wanted, and the world was good. And then he started to believe his own press. He thought he was the real thing. That he was the dude. He thought he was a big mean tiger-cat, not a little kitten. So he dug up...something...someone else wanted. He thought the something he dug up would look after him. Silly boy. And that night, he's sitting in

> Jackson Square, talking to the Tarot readers, telling them about Jim Morrison and the cabala, and someone taps him on the shoulder, and he turns, and someone blows powder into his face, and he breathes it in. Not all of it. And he is going to do something about it, when he realizes there's nothing to be done, because he's all paralyzed. There's fugu fish and toad skin and ground bone and everything else in that powder, and he's breathed it in. They take him down to emergency, where they don't do much for him, figuring him for a street rat with a drug problem, and by the next day he can move again, although it's two, three days until he can speak. Trouble is, he needs it. He wants it. He knows there's some big secret in the zombie powder, and he was almost there. Some people say they mixed heroin with it, some shit like that, but they didn't even need to do that. He wants it. And they told him they wouldn't sell it to him. But if he did jobs for them, they'd give him a little zombie powder, to smoke, to sniff, to rub on his gums, to swallow. Sometimes they'd give him nasty jobs to do no one else wanted. Sometimes they'd just humiliate him because they could - make him eat dog shit from the gutter, maybe. Kill for them, maybe. Anything but die. All skin and bones. He'd do anything for his zombie powder. And he still thinks, in the little bit of his head that's still him, that he's not a zombie. That he's not dead, that there's a threshold he hasn't stepped over. But he crossed it long time ago."[142]

Gaiman brings to the point what the traditional zombie topos evolves around: the zombie as a victim, punished for not playing to the rules. The young man, arrogantly trying to claim the secrets of a culture not his own, crosses a border, and as a consequence his free will is taken from him, turning him into a mindless slave, and the most horrible thing about his punishment is the fact that - if nothing else - he's just not really dead, that somewhere deep within, his desire for knowledge and power still persists, but without any chance to be fulfilled.

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142 Gaiman, Neil: "Bitter Grounds", in: Adams, John J. (ed.): "The Living Dead", Night Shade Books, San Francisco, p. 345-359.

The traditional zombie is no immanent threat for others, he's bereft of any kind of agency, and the scary thing about this idea of zombies is the idea that one might be dead and still existing, forever at the mercy of others as it's not the loss of life that makes this kind of zombie, but the loss of free will.

In haitian mythology, the possibility of transformation into a zombie has a disciplinary function, and the christian motive of hell comes to mind: *behave, play by the rules, or else...!* The disciplinary element of this kind of myth does not establish zombies as a threat to society, but saves them a place within society itself. These zombies do scare the living, but the scare is supposed to be an educational one, a reminder that anti-social behaviour will have consequences. Therefore, as Peter Dendle points out, "... the fear in Haitit is not of being harmed by a zombie, but of becoming one"[143].

2.3.2 The contemporary zombie topos

But even if the traditional zombie topos still plays its little part in contemporary culture, since George A. Romero's *Night of the Living Dead (Laurel Group, 1968)* established what I will call 'the contemporary zombie topos', the fear of zombies is definitely of being harmed by one - or many.

What does this contemporary zombie topos consist of, what has so drastically changed about the way we confront the idea of the living dead?

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143 Dendle, Peter: "The Zombie Movie Encyclopedia", McFarland, Jefferson N.C., 2001, p. 3.

> "In earlier presentations, the zombie was a derivative creature, always under control of some other more intelligent being (voodoo master, mad scientist, vampire). Romero liberated the zombie from the shackles of a master, and invested his zombies not with a function (a job or task such as zombies were standardly given by voodoo priests), but rather a drive (eating flesh). [...] "Zombies thus become endowed with a highly physical, biological craving; they are no longer robotic machines, but gluttonous organisms demanding representation in the food chain."[144]

Contrary to the earlier, 'traditional zombie', which was always under (somebody's) control, 'modern zombies' are the epitome of the 'uncontrollable force'. While earlier zombies were the outgrowth of a strict social rule set, they are now the counterpart of human society, not humans trapped in a voodoo trance, but "gluttonous organisms", breaking down our cultural safety net, aiming not at warning us to follow the rules, but at devouring us piece by piece.

Order, Chaos & Changing the Rules

Traditional zombies - as eerie as they may seem - have had their function in sustaining societal order. These new zombies evoke a very different association: *Chaos*.

But in a strange way, that's not what these zombies are actually about. Contemporary zombies are not the embodiement of a world without rules. The rules these zombies are guided by may be simple and instinctual, but rules nonetheless: they are driven by the urge to feed, their sole goals being expansion and annihilation. They do not lack rules and the urge to follow them, but in their

144 Dendle, Peter: "The Zombie Movie Encyclopedia", McFarland, Jefferson N.C., 2001, p. 6.

basal, instinctual behaviour, what they do lack is social values. Whatever they do, they are not guided by consciousness, they do not make decisions based upon moral reflection. There is nothing they believe in, they simply exist.

Contrary to the rules and legitimizations any society seeks to establish, these modern zombies are simple biological organisms, and this is the big threat they pose. By sheer force, their single-mindedness threatens to (and in the movies, actually does) eradicate the societal frameworks humankind is so eager to establish. While in the traditional zombie topos, the idea of being turned into a willingless zombie functions as a societal threat - the zombie bereft of agency, therefore at the mercy of society - in the modern topos the zombie is a threat for society itself.

This is the key twist Romero gives the topos, and it becomes obvious in the way he uses the backdrop of a zombie outbreak in his movies. These are not movies about a fictional zombie outbreak, the outbreak is used as a means to create a situation in which society falls apart, and individuals are suddenly on their own. The individual insecurity Romero tries to evoke by creating a situation in which everything we tend to believe in proves to be wrong, and in which no new reassuring models of explanation are to be found, becomes especially tangible about 60 minutes into *Night of the Living Dead*, when a group of survivors watches a newsreport on television. While the report constantly aims at giving its viewers the impression that the situation is getting under control (when the newsman states: "we are able to report a definite course of action. Civil defense machinery has been organized to provide rescue stations with food, shelter, medical treatment and protection by armed national guardsmen"), the report culminates in a supposedly reassuring official statement by members of the

commission assessing possible causes for the outbreak. In front of microphones and television cameras, the government officials and experts start to fight and contradict each other:

Expert 1:
"A very high degree of radiation..."

Expert2:
"...wait just a minute... I'm not sure that... that's certain at all, I don't think that that's been..."

Expert 3:
"... the best explanation that we have at this time..."

When the sequence ends with the statement: "Everything is being done that can be done", it is obvious that this is not much.

The structures of society dissolve into perplexity, and it's clear that it's every man for himself for the time being. The rules have changed, but we don't know the new rules, and there is no reason to believe we ever will. It's easy to argue that the topic of Romero's movies is less the immanent fright evoked by semi-decomposed attackers going for one's throat, but rather the more basic terror of being on one's own, the fearful idea that our comforting beliefs are challenged, that we are no longer part of a society but must face our individual terrors alone.

Horror as isolation, and society as its antidote

This does not make the modern zombie movie less of a horror tale. Rather, on a level that has earlier in this chapter been defined as the level of "experiential set up", it makes a good example for the nature of any horror-experience.

Disregarding genre discussions and aiming rather at the "experience of horror", author Stephen King defines horror not simply as the confrontation with fearful images or events, but as the experience of being apart from one's fellow man, suddenly left on one's own, or - according to the title of one of the earliest digital horror games - *Alone in the Dark*[145]:

> "Horror, terror, fear, panic: these are the emotions which drive wedges between us, split us off from the crowd, and make us alone. It is paradoxical that feelings and emotions we associate with the 'mob instinct' should do this, but crowds are lonely places to be, we're told, a fellowship with no love in it. The melodies of the horror tale are simple and repetitive, and they are melodies of disestablishment and disintegration..."[146]

On the level of experiential set up, this is the contingency field horror tales open up: the motive of being alone, cut off from "the others", dependent on one's own values and beliefs, as there is no one else around who cares.

In Scott Edelman's short story "Almost the Last Story by almost the Last Man", this concept is not only applied as a blueprint of the narrative, it is made ex-

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145 Even according to the distinctions made in this chapter, the Alone in the Dark series actually deserves the rating as a "horror game", as it will be defined later.

146 King, Stephen: "Danse Macabre", Warner Books, London, 1981, p. 26f.

plicit when the narrator tries to grasp the horrors he faces as he emerges from a library where he has spent the weeks after a zombie outbreak and discovers that he might be the last living human being on earth:

> "Isolated as I am, I can't tell. I'll never know. I guess that each of us, wherever we are, will appear to be the last to ourselves. And if we appear to be the last, then we are the last. But if by some miracle, I am not the last man telling the last story, if there are others who someday read these words, who have managed to restore a civilization to this planet currently hovering between life and death, think of me from time to time as you go about your day. Think of us. I lived in a time of no hope, feeling there was no life outside my own, and with no new life to follow."[147]

Edelman's text not only highlights the feeling of isolation from other human beings as the core concept of the 'horror genre', it also emphazises the isolation being one of ideas rather than physical solitude. Physically, the zombies offer a great opportunity for close contact with other beings. The narrator's despair derives from the realization that the zombies cannot share the narrator's desire to formulate his ways of trying to make sense of the world. They are not interested in his stories, and without these stories, without the attempt to gather a common understanding of our perceptions with others, the mere concept of existence appears challenged:

> "One thing I've been realizing, as my subconscious mind weaves life into art (well, let others decide if there's any art there) is that all zombie stories are true. Also, no zombie stories are true. Because, you see, there are no zombie stories until I write them. The universe has no opinion of us. No matter how much we want to pretend, real

147 Edelman, Scott: "Almost the Last Story by almost the Last Man", in: Adams, John J.(ed.): "The Living Dead", Night Shade Books, San Francisco, p. 433-456.

> life does not contain the quality of story. No arcs, no morals, no meaning. Life is what we make of it."[148]

An example for constructivist fiction on the one hand, the text confronts - on an anthropological level - the idea of societies as an effort to make sense of the world by sharing our ideas with others. Meaning is not inherent in life, it is a part of and a result from narrative constructions and social acts of negotiation. Without an audience, without society, life and our efforts to make sense of it become meaningless.

At the end of the story, the narrator seizes to exist not because he is killed, but because he stops writing his stories, concluding that our worlds only continue to exist if there's somebody there to read about them:

> "I've always known that fact, and the lesson it taught me is that *my* world will not continue to exist unless someone is there to read about it. That is why I have been creating these stories. That's why I've always created stories. But I can't do it any longer. I see that I have lived too long, have lived through the time of my usefulness out to the time beyond stories.
> I could keep trying to tell them, but what would be the point of that? It's not worth remaining in a world without readers, and I doubt that you still exist.
> My world can survive *my* death. But it cannot survive *yours*."[149]

148 ibd., p. 446.

149 ibd., p.453.

2.3.3 Romero's zombies as epitome of horror

This core element of horror - the shortfall of society and the experience of being all alone - is the main drive behind any given horror tale. Equivalent to one of the most famous movie taglines: "In space, no one can hear you scream" (*Alien, Brandywine/20th Century Fox, 1979*), it's the notion of "no one will believe you", "no one will help you", "there's no one there to save you" that defines this feeling of loneliness and isolation when it comes to the experience of horror.

In *Nightmare on Elm Street (New Line Cinema, 1984)*, the homicidal maniac Freddy Krueger may be a scary figure. But it's not his deadly ambitions that account for the horror experience. It's the fact that, while the main character Nancy Thompson soon understands Krueger's logic and is willing to take action against his schemes, the world around her insists that she is making things up, and in misguided attempts to help her with her alleged mental problems, corrupt any of her attempts to survive Kruegers manhunt.

And, to draw on a more recent example, in the remake of *The Texas Chainsaw Massacre (New Line Cinema, 2003)*, the chainsaw-wielding "Leatherface" is no doubt giving the protagonists a lot of trouble. But the horror arises when every single denizen of the small Texas town the fleeing youths approach for help turns out to be yet another maniac instead of offering a place of refuge. Even contacting the local police force turns out to be a deadly mistake, as the sheriff himself is no less than the killer's father - and he supports his son's whimsical urge to hunt as best he can.

But while these tales of horror are dependent on narrative strategies, specific situations that arise from a series of events, the horror of Romero's zombies does not lie in the narrative, but in the idea of zombies themselves: the concept of the Romero zombie establishes the dissolution of society long before a specific narration takes its course.

The modern zombie as the epitome of the anti-social becomes apparent in a specific feature of these creatures' constitution: the key function of the brain.

Brains as Minds, Brains as Lunch

> "*Night of the Living Dead*'s most peculiar zombie innovation is the idea that zombies can be destroyed only by being shot in the head or by otherwise deactivating the brain core. This is consistent with the implied physicalism of the trilogy: however aberrent, the life force inhabitating the errant bodies is intrinsically connected with the physical brain process. *Day of the Dead* (1985) provides more detail: the brain is slowly rotting, and when the decomposition consumes the brain more entirely, the zombie will cease functioning."[150]

The brain is the place where we tend to localize what makes us human. The threat of zombies may at first glance be a physical one - similar to the assaults of Freddy Krueger or "Leatherface" - but it is even the bigger as it explicitly arises from the same "black box" that we hold responsible for our idea of "being human". It is what is commonly called "the human mind" that enables us to establish values and beliefs, thereby making sense of the world around us and - by

150 Dendle, Peter: "The Zombie Movie Encyclopedia", McFarland, Jefferson N.C., 2001, p. 6.

enhancing our perceptions with meaning - renders possible concepts of social interactions leading to what we call culture.

Unlike the brain's function as host of 'the mind', the modern zombies' drive is a last flicker of a decomposing brain, not a fulfilling of the functions we usually assign to it. It results from a malfunction, it is a reflex. Similar to the action tremor of dead fish or the stories of headless chicken still running, it is scary precisely because it cannot be explained by goals, functions or even the creatures' instinctive behaviour, but as a lifelike symptom for the absence of life - a lack of life not in terms of an organism's ability to exist, survive and expand, but as the idea of human life as the notion of cultural existence.

Most interestingly, Romero himself breaks down his own concept of the modern zombie, and he does it by re-introducing the idea of societies to the concept. In one of his more recent movies, *Land of the Dead (Universal Pictures, 2005)*, he grants the zombies the ability to establish a society on their own. The birth of this 'zombie nation' begins the moment one of the zombies witnesses the slaughtering of his fellows by a group of bloodthirsty humans, and instead of defending himself, and contrary to what we used to believe about his species, experiences the humans' sadism as cruel and unjust. Instead of acting out of reflexes and instincts, he makes a deliberate decision, initially defending his companions, and finally making the effort of organizing the zombies in order to survive the humans' cruelty. It is the moral decision of this special zombie that leads to the establishment of a basic society, and Romero's statement is clear: all culture starts off with values, and the moment decisions are based on values and beliefs, the transition from mere existence to culture has taken place.

With this simple twist, Romero brings to the point what he has established as the modern zombie topos by challenging the concept with its own limits: what we are used to associate with the contemporary zombie is the absence of culture, the breakdown of values and beliefs mooring the individual in a context of societies. The moment the individual stops thinking of itself in its own terms only, it becomes a social being, and the duality of 'self' and 'other' becomes the driving force for its existence.

2.3.4 The appeal of horror: experiential set up

While the concept of a society breaking down, leaving the individual to himself, constitutes a horrifying element in horror tales, it does not necessarily lead to a negative experience. On the level of experiential set up - the arrangement of elements that open up a contingency field of possible experiences before values and beliefs are applied and a perspective on these events is taken - it simply establishes a situation where individual actions are only legitimized by individual decisions, not by responsibilities for a society no longer in existence.

When there's no one left to tell me what to do, I'll have to figure out my way on my own, and for my own good. "While the master was riding, the servants decided to play"[151], as the Alan Parsons Project put it, and there is undoubtedly some appeal in that.

In these terms, the breakdown of societies opens up for experiences of 'the Self' - what is left of a person when they are stripped from any societal restraints,

151 The Alan Parsons Project: "May Be a Price to Pay", Arista Records, 1980.

dependend only upon themselves? This is well reflected on a physical level in zombie movies:

> "A major concern of zombie movies is the stripping away of surface ornament, such that the insides are out, in body no less than in mind. The skin is unable to confine the organs, just as the cerebral cortex is no longer capable of controlling the reptile brain"[152]

And this is what Romero gets out of his staging of the modern zombie outbreak: the stripping of the individual from any social context. These are not tales of people trying to find their way amongst other human beings, but on a personal survival trip. When the world has gone crazy, there is no use for long-term plans, any decision being a momentary reaction to imminent threats.

2.3.5 Experiential Set Up of the Modern Zombie Topos

On the level of experiential set up, the modern zombie topos disregards any kind of strategical thinking: any action is intended to survive the moment, as there is no use to plan ahead for a tomorrow that may never come. The thinking required in Romero's vision of a zombie-infested world is merely tactical: staying alive is the motto of the day, and it does not matter how you do it, as long as you keep on living. There's no one left who could judge you, and if you think too long about how your actions define yourself morally, you'll end up dead.

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152 Dendle, Peter: "The Zombie Movie Encyclopedia", McFarland, Jefferson N.C., 2001, p. 7.

So far to the experiential set up underlying narrative implementations of the contemporary zombie topos. But what about games? How can a game as a rule-based system account for a similar experiential set up, opening up contingency fields of experience compatible with those promised by the modern zombie narrative?

Or, to put it another way, what are the elements on the level of game mechanics that can correlate with a fictional layer derived from the concept of (modern) zombies as an experience focussed on the individual, liberated from the security and demands of society - and how can a game's mechanics sometimes distinguish the gameplay experience from the experiential set up of the zombie topos on a fictional level - the result most certainly being another experience than that of 'horror'?

2.4 Third Case Study:
The 'contemporary zombie topos' in Survival Horror Games and MMORPGs

On a fictional level - employed as a 'theme' - the contemporary zombie topos as outlined above has become a persistent motive in the genre of Survival Horror Games. This is not to say that there are no alternative themes the genre draws upon. In *ObsCure (Hydravision Entertainment, 2004)*, a group of high school students battles an army of mutated plants, which have escaped the school's laboratory and have developed a taste for blood; even though the game is often claimed to be inspired by the movie *The Faculty (Los Hooligans Productions, 1998)*, Robert Rodriguez's tongue-in-cheek take on the 'alien invasion' motive, the game's fictional backdrop actually shares the idea of 'science gone wrong' with the contemporary zombie topos. Its experiential set up, however, is quite different, even though the idea of 'horror as isolation' is a strong motive in the game. In the *Alone in the Dark* Series *(Infogrames, 1992-94)*, and most prominently in the game *Alone in the Dark: The New Nightmare (Darkworks, 2001)*, the backdrop of failed experiments gives way to mythological motives; while the creatures players fight in the game are again plant-like monsters, this time they are the offspring of ancient forces, who inhabited the world long before the 'dawn of man'. While the series is generally inspired by H.P. Lovecraft's writings, *The New Nightmare* may also qualify as an adaptation of the 'indian burial ground' motive, which has its place in contemporary western horror culture at least since Tobe Hooper's and Steven Spielberg's movie *Poltergeist (MGM, 1982)*. The underlying fictional backdrop of the game may therefore be argued as an

evocation of post-colonial 'bad consciousness' regarding the suppression of a country's original inhabitants, and the fear of the re-emergence of a repressed past. In a much more introspective sense, this kind of fear also becomes a guiding fictional element in the *Silent Hill* game-series *(Konami, 1999-2004)*, in which the protagonist's confrontation with his or her inner fears and suppressed memories constitutes the game's story. Contrary to the above examples, this game's fictional backdrop does not translate outward menaces into gameplay confrontations, it reflects the dark, subconscious spaces of the mind, from which the past may come back to haunt you.[153]

All these examples illustrate different adaptations of the 'horror experience' in the genre of Survival Horror Games. But on a fictional level, this experience is reflected mainly by means of narrative strategies: it is important to 'get the story straight' in order to appreciate how the experience of 'horror' enacted on a gameplay level is also reflected in the game's fictional theme. When it comes to the zombie topos, this appreciation does not have to rely on a certain structure of the 'background story'. As has been argued above, the topos itself incorporates the idea of horror as isolation and societal breakdown, while the specific events taking place during the game's unfolding narrative merely provide an additional consolidation of the theme.

There are of course examples of successful implementation of the zombie topos in digital games. These games are not successful simply because they add a fictional layer of zombie fiction on otherwise straightforward action-oriented

153 see: Rusch, Doris C.: "Staring into the Abyss: a close reading of Silent Hill 2", in: Davidson, Drew (Ed.): "Well Played 1.0 - Video Games, Value and Meaning", ETC Press, 2009, p. 235-254.

gameplay possibilities. Rather, they operationalize basic elements resulting from the zombie topos (and the horror tale as defined above in general) as game mechanics, achieving a compliance between the fictional topos and the gameplay possibilities on the level of experiential set up.

This 'operationalization' in form of a game's mechanics and the resulting possibilities of 'actions and consequences' have gradually become a key interest in the game studies discourse. Contrary to the idea of games as yet another form of narrative, relying on their fictional 'themes', the notion that it is the rules of a game, rather than it's fictional layer, that enables the emergence of experiences has been acknowledged as a 'new form' of mediated meaning generation, as Ian Bogost points out:

> "I call this new form *procedural rhetoric*, the art of persuasion through rule-based representations and interactions rather than the spoken word, writing, images, or moving pictures. This type of persuasion is tied to the core affordances of the computer: computers run processes, they execute calculations and rule-based symbolic manipulations."[154]

With a focus on gameplay genres, zombie games like the classical *Resident Evil Series (Capcom, 1996-2004)*[155], *Dead Rising (Capcom, 2006)* or *Left 4 Dead (Valve Corporation, 2008)* seem to form quite diverse examples for different game mechanics enabling gameplay experiences. However, focussing on the experiential

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154 Bogost, Ian: "Persuasive Games - The Expressive Power of Video Games", The MIT Press, Cambridge, M.A., 2007, p. ix.

155 The *Resident Evil* games produced before 2005 are prime examples for the Survival Horror genre. Beginning with *Resident Evil 4 (Capcom, 2005)*, the series has been subject to significant changes in the games' mechanics, which to discuss is not the aim of this chapter. The reference to the series, however, specifically refers to the earlier games.

set up of these zombie games, it will be argued that each of these games constitutes a different way to conform with the experiential set up of the modern zombie topos as defined above.

The siginficance of these strategies will be clarified in comparison to the experiential set up of another game form, the genre of Role Playing Games (RPGs), or more specifically Massive Multiplayer Online Roleplaying Games (MMORPGs). While there seems to be a wide area of fictional topoi employed as backdrops for these kinds of games (fantasy settings like Tolkien's The Lord of the Rings or Star Wars, Science Fiction settings like Star Trek or The Matrix, or more general topoi like pirates, vampires and werewolves), there is no RPG making use of the modern zombie topos as a fictional backdrop (even if on a representational level, zombies are sometimes encountered as enemies or even playable characters in RPG's, as in the case of *World of Warcraft*).

This assessment will be limited to the specific differences between Survival Horror Games and MMORPGs in regard to their consistency with an 'experience of horror', which has been discussed above, in contrast to the support of experiences of societal responsibility and commitment.

Extensive studies of the 'procedural rhetorics' in digital games have already been conducted, and even the 'procedural adaptation' of the zombie topos in Survival Horror Games - with a focus on the *Resident Evil* and *Dead Rising* games - has been the angle of a thorough investigation[156], which takes an exten-

156 Weise, Matthew J.: "The Rules of Horror: Procedural Adaptation in *Clock Tower*, *Resident Evil,* and *Dead Rising*", in: Perron, Bernard: "Horror Video Games. Essays on the Fusion of Fear and Play", McFarland, Jefferson, N.C., 2009, p.238-266.

sive look on the genre and the way it re-models the experience of Romero's movies as sets of possible actions and consequences.

In the third case study, which will conclude this chapter, I will therefore single out a very specific element which quite articulately illustrates how game design strategies may suggest or deny different player experiences.

It will be argued that the mechanics and design of RPG's, by reflecting a fictional backdrop that offers matters of society for debate, do not conform with the experiential set up of the modern zombie topos, which on the contrary opens up for experiencing the individual while pushing matters of society and its rules to the background. This 'experience of the Self', however, is strongly supported by the mechanics and design common in 'Survival Horror Games', which promote the enactment of much more self reliant strategies and behaviour, while eclipsing the confrontation with matters of society, responsibility and commitment. In order to illustrate these different implications of a game's possibilities of 'actions and consequences', the case study will focus on the different uses of inventory space, which will be argued as a distinct example for the distinguishing features of the different game genres.

2.4.1 Items and Inventory in Survival Horror Games: Make do with what you got

One of the first things that stand out when comparing Survival Horror Games to RPG's is the fact that they present two very different challenges when it comes to item- and inventory management. Survival Horror Games usually of-

fer players very limited inventory space. In the original Resident Evil series, players had to make do with 4 to 6 slots in their inventory, and this hasn't changed much. In a game in which one constantly stumbles upon items that may be helpful and promise to be important ressources in defeating enemies and surviving (different kinds of weapons, ammunition, health items etc.), this primarily leads to one thing: sacrifice.

In a *Resident Evil* game, the player might find a very powerful grenade launcher, which brings enemies down with one shot. But there are only three rounds of ammo to go with it. This means the player has to sacrifice one or even two inventory slots for a weapon that guarentees an instant kill - but only for the next three enemies. Probably, the player will rather drop the super-weapon and stick with her simple handgun, which is much less powerful and unreliable, but contrary to the grenade launcher, carrying the gun and, say, 60 bullets, will leave the player prepared for a longer time and still use up only two inventory slots.

In the *Dead Rising (Capcom, 2006)*, which has already been discussed in an earlier chapter, players start with only four inventory slots, which can be upgraded to a maximum of 12 slots during the game. While this is slightly more than *Resident Evil* players are used to, item management in *Dead Rising* is not only a challenge due to limited inventory space. The game enables the player to pick up a multitude of items found in the zombie infested shopping mall and use them to kill zombies. Many of these items are not traditional "weapons" like those usually found in the *Resident Evil* series, but household items like frying pans, chairs or television sets. As most of these items represent large and sturdy objects, they cannot be stored in the inventory like the more common objects

(guns, food or books, which will be discussed later). The player can pick up one of these items, carry it around, use it against zombies and drop it. While she is holding the item, however, she cannot access her inventory without dropping the item.
The other limiting factor concerning items in *Dead Rising* is the fact that most of these items have limited durability. Even a steel pipe (an almost 'traditional ' weapon in the survival horror genre) can only be used a limited time before it breaks - qualifying *Dead Rising* zombies as the most resilient in the history of the zombie game.

Instead of preparing for a fight by choosing the most suitable weapon from her inventory, the player will often find herself surrounded by hordes of zombies, pick up a microwave oven and use it to bash some of the zombies until it breaks, then turn around and pick up a cash register to continue - using every item as long as possible before it breaks.

This is where books come into play. Just like food and weapons, the player can find a variety of books in different bookstores located around the mall. The purpose of these books is to provide bonuses to certain skills, the most important bonus regarding items being the ability to use certain items three times longer before they break. There is, however, no book that provides a bonus for all kinds of weapons; specific kinds of books also provide durability bonusses for specific kinds of items. The "hobby" book for example (presumably advisory literature on how to spend your leisure time), provides a durability bonus for "toys" like a boomerang, a toy bear or a toy laser sword (which actually can be used to kill zombies). The "sports" book provides a durability bonus for sports equipment like baseball bats, dumbbells or bowling balls, while the "en-

tertainment" book expands the durability of items like television sets or musical instruments.

Some items benefit from more than one book, multiplying the durability of the item. The small chainsaw, for example, can get the durability bonus from 3 different books ("entertainment", "engineering" and "criminal biography"), boosting its durability to last 27 times longer than usual. While this makes the small chainsaw one of the most powerful weapons in the game, it also significantly limits inventory space: to get the full bonus, the player must carry the chainsaw and each of the three books, thereby sacrificing 4 precious inventory slots for one powerful item.

In the game *Left 4 Dead (Valve Corporation, 2008)*, the game design goes even a bit further in suggesting a short-term, tactical playstyle when it comes to inventory. In different scenarios players can form groups of four via the internet to try and escape a zombie infested city through the streets, the city's suburbs, its airport and the surrounding woodlands. More in the tradition of cooperative ego-shooters than classical survival horror games, there is no inventory at all. Apart from pistols, which provide a weak, if reliable backup weapon, players can carry one firearm, one grenade type weapon and one health item at a time. Every time a weapon is picked up, the previous weapon has to be dropped, and the player has to stick with the decision until another weapon can be found. But the choice of a single weapon is not the only element favoring short-term tactical over long-term strategical thinking: contrary to most survival horror games, ammunition is not a seperate item which has to be managed in addition to weapons. Every time a weapon is picked up, it automatically comes with full ammo, and switching a weapon for another one and immediately switching

back also restores the previous weapons full ammunition. Even the limited strategical consideration whether to choose a weapon because I already carry around plenty of ammunition for this specific weapon becomes obsolete. This does not mean that the game provides unlimited ammo at all times, as the switching of weapons can only take place at designated weapon stashes located at certain spots in the game (which also vary every time the game is played). If a player runs out of ammo at some point, she will have to try and reach the next weapon stash before she can reload, having to rely on her much less potent handgun for the time.

The linking of supplies to a fragmentation of the gameplay course constitutes a persuasive implementation of an experiential set up suggesting a short-term tactical playstyle, enabling an experience of 'every man for himself' even more convincingly than the limitation of supplies in more 'conventional' survival horror games.

At the beginning of a mission, players don't have to focus on the longer-term goal of reaching the end of the level, but just on getting to the next weapon stash alive, where everybody can gear up again, pick up new weapons and ammunition, grab a first aid kit and make a fresh start into the next section of the map.

While the limitation of supplies and inventory, as in the *Resident Evil* series, still calls for a fair amount of strategy, even if one cannot plan ahead for a long period of time, the linking of supplies to a string of supply stashes throughout the game map strongly supports a 'step by step' gameplay.

In all three examples, the limitation or absence of inventory space, the restricted availability of supplies or the fragility of items lead to very short-term, tactical decisions: the 'I have to make do with what I got' effect. Will I take the grenade launcher with me because there seems to be a very strong opponent coming up, or do I leave this powerful weapon behind, because at this moment, the handgun makes more sense? Do I run for cover, or do I pick up the television set to bash a few zombies out of the way? Will the pumpgun be my best choice to get around the next corner alive, or will the sniper rifle get me further?

2.4.2 Inventory Space in (MMO)RPGs: Pick your battles (several answers possible)

In RPGs, the challenge concerning item and inventory management is very different. Contrary to the limitation of available items and scarce inventory space common in survival horror games, RPGs offer a huge amount of items accessible to the player, and inventory management is not challenging due to a restriction of available space, but due to the magnitude of inventories.

A Level 80 character in *Everquest 2 (Sony Online Entertainment, 2004)*, for example, has to manage almost 900 inventory slots (my Assassin Kendrick currently owns twenty 36-slot boxes and six 28-slot bags, which adds up to a total of 880 inventory slots). This is not counting alternate characters ("alts") or guild inventory. As certain items can be "stacked" in amounts of up to 100 pieces of the same item per slot, this amounts to a vast number of items a player has to manage.

And in the popular MMORPG *World of Warcraft (Blizzard Entertainment, 2004)*, inventory seems a challenge due to its limitation only in the early stages of the game. The initial inventory space of 44 slots (the character's basic 16-slot bag and 28 additional slots in the bank vault) seems to call for item sacrifice. As characters advance, however, inventory space grows immensely. By equipping the highest-level bags in the game, by expanding the bank vault and by forming a guild, which grants access to an expandable guild bank, inventory space can be increased to up to 874 inventory slots.

The fact that most RPGs offer only limited inventory space in the beginning of the game might partly be due to the fact that designers try to give players a chance to grow accustomed to inventory management before challenging them with huge numbers of items and inventory slots. But the gradual expansion of inventory space may also be argued to establish the value of inventory space in the game, as most players will first meet the limits of their current inventory before deciding that larger bags or more complex strategies to manage their items might be a worthwhile sub-goal at the current stage of the game.

Still, due to the complexity of the game and the huge number of different items acquired throughout and useful in the game, players very often meet the limits of their seemingly huge inventories. Many players create a number of alternate characters specifically in order to make use of additional bags and bank vaults, thereby multiplying inventory space. To keep track of these enormous number of items they have to manage, some players make use of specific "add-ons", small programs that can be intergrated into the game offering additional inter-

face options. One example is *Altoholic*[157], an add-on that lets players keep track of all the items scattered between their different characters' inventories. Altoholic also lets players see all the items that have been sent via in-game mail from one character to another and are being intermediately stored in the recipient-character's mailbox, a strategy which bypasses inventory restrictions and provides virtually unlimited inventory space.

The challenge RPGs present to players in regard to inventory management does not call for sacrifice. The question here is not which item to disregard in favor of another one, but which item to place in which bag, how to arrange the inventory so items can be found again when needed, and how to develop and keep track of complex inventory management systems: which items will be useful for the next tasks in the game, which items might be needed later, which items should be set aside for another character? This calls for long-term strategical thinking, and for always keeping in mind that everything found in the game, while useless at the moment, might be useful later.

Contrary to the short-term tactical thinking required in Survival Horror Games, this conforms much more to the idea of societies and culture: current actions will have consequences much later in the game, one has to keep different factors and needs in mind as one aims to plan ahead and provide for the future. This becomes even more apparent when different characters are involved:

For instance, playing an assassin-class character, a player might stumble upon an item that can only be used by a conjurer-class character, therefore being

157 http://wow.curse.com/downloads/wow-addons/details/altoholic.aspx

completely useless to the character and the current gameplay. Still, the player might decide to keep the item instead of discarding or selling it, as she is planning on creating a conjurer-character at a later date, and the item might be a great start for this different game.

This might well resembles the idea of progeny and heritage: in the role of one character, players aim their actions not only at this character's personal well-being, but keep in mind that they might want to provide a 'secure footing' for their 'descendants': just like saving up my money so 'the kids will have a better start in life than I myself had'.

2.5 Summary: constructing experiences

The affordances of (MMO)RPGs in regard to item and inventory management have proven to be quite different to those of Survival Horror Games. It has been argued how this difference also supports very different experiences for players. As the experiential set up of Survival Horror Games highlights matters of individual success, self-dependency and, finally, isolation (thereby modeling a clear-cut 'experience of horror', as it has been defined above), they enable experiences of the self, of short-term tactical thinking and personal moment-to-moment survival in a world where society's rules and demands have broken down.

Contrary to this, the much more complex challenge of item- and inventory management in Online Roleplaying Games have been shown to support long-term strategical thinking, integrating the idea of sacrifice for one's peers (even if they are simply the player's own alternate characters) into the gameplay, and

require careful planning and deliberate, sustainable decisions. Accordingly, these games open up issues of commitment and responsibility, of using one's part in life not only for short-term success, but also as a way to provide for the future, keeping in mind that one has to plan ahead for tomorrow. These issues, which have been shown to be strongly suggested by the game's mechanics, enable experiences that resemble matters of the individual embedded in society, supporting the negotiation of personal desires within a societal framework, and thereby disregarding an 'experience of the Self' which is so central to Survival Horror Games.

This difference may well account for the lack of the 'contemporary zombie topos' in the realm of Online Roleplaying Games. The experiential set up of this topos, which has been examined in the second case study, stands in direct opposition to the experiential set up of Online Roleplaying Games, while being consistent with the set up common in Survival Horror Games. The deficiency analysis, however, has also shown how a differentiation between experiential set up and experiential perspective, as it has been argued in the first case study, can provide a fruitful perspective on the construction of experiences. While the concept of 'experiential set up' can highlight the elements and relations of a specific topic or event, which provide the 'building blocks' of subsequent experiences, it is the 'experiential perspective' which, through the application of specific 'values and beliefs', determines the actual experience.

This idea of an 'experiential set up', however, does not imply a realist notion of 'topics and events'; these, too, must be considered as results of construction processes, which single out a certain set of elements and relations as a specific topic or event. The 'experiential set up', therefore, complies with the notion of

'first order realities', while the application of values and beliefs constitutes a level of 'second order realities', on which an 'experiential perspective' may be applied. As a manifestation of 'first order realities', the 'experiential set up' does not constitute an objective factuality, but is again a result of social and cultural negotiations and agreements; this constructedness is reflected in the second case study's examination of various examples of cultural production, which may all have played their part in establishing the 'contemporary zombie topos' as a constant in western culture.

While the distinction between 'experiential set up' and 'experiential perspective' can therefore serve as a viable approach for addressing the transition between mediated events and the experiences they may support or neglect, it only goes so far as a theoretical and methodical tool for the assessment of play experiences: if even the set up of experiences, which constitutes *what* is experienced, is a result of cognitive construction processes, how can these basic processes of construction be assessed in an adequate way?

The next chapter will address this problem by digging even deeper than a differentiation between 'experiential set up' and 'experiential perspective' allows for. In the aim to answer the underlying question of this thesis - 'Why do people play games?' - the focus of this chapter will be on the cognitive processes underlying the organization of experiences, and by highlighting the emergence of pleasure and satisfaction, it will be attempted to develop a viable model of human experience which may shed a light on the guiding issue of this thesis: the 'play experience'.

Part 3:

The Play Experience

"The eternal problem of the human being
is how to structure his waking hours."
(Eric Berne)[158]

3.1 Play, Satisfaction and Anthropology

In the previous chapter it has been argued that a focus on player experiences may heighten our understanding of games and game-related phenomena.
A distinction between the 'experiential set up' on a level of first order realities and the 'experiential perspective' arising from the application of values and beliefs as the construction of realities of second order has been suggested in order to make the emergence of experiences from (mediated) events and, finally, games more tangible.

Still, at this point the distinction between these two levels constituting experiencse is no more than a useful methodical assumption, a way to approach certain questions in order to reach more satisfying conclusions, a viable tool at best.

158 Berne, Eric: "Games People Play - The Psychology of Human Relationships", Penguin Books, London/New York, N.Y., 1964.

In the following chapter the assessment of play experiences will be expanded to address one of the more basic questions of digital games research, a question which Simon Egenfeldt Nielsen has labeled as one of the "larger questions" defining the field of computer game studies:

> "Another question central to game studies is this: "Why are there games?" Why do we, biological entities capable of creating poetry, climbing mountains, and splitting the atom, spend so much time playing games - especially when playing these games often conflict [sic] with our basic human needs: to sleep, to feed ourselves, to communicate with our spouses? We don't know. Or rather, the question has sparked surprisingly little interest and no consensus exists. However, some answers have been proposed, and, not unreasonably, they tend to be rooted in biology. They usually go something like this: the ability to play allows organisms to simulate reallife situations. Through these simulations, the organism can practice important skills in relative safety. The individual with a disposition towards play then has an adaptive advantage over those lacking this disposition; natural selection takes care of the rest. The individual who practices throwing his spear in his spare time stands a better chance of survival when a sabre-tooth tiger attacks. Such an answer, though sensible, is not comprehensive. While evolutionary biology, for instance, may explain *why* there are games, it does not explain very clearly why our games look the way they do. Nor does it explain why people like different games and display such an enormous range of attitudes about the very act of playing games."[159]

So, why do people play games? In the context of this thesis, I will refrain from approaching this question from a viewpoint "rooted in biology". The reason for this is simple. The biological approach towards play and games contains a simple, yet far-reaching safeguard against the problems this question bears for the discipline of games studies: the utilitarian explanatory models for the human

159 Egenfeldt Nielsen, Simon; Heide Smith, Jonas; Pajares Tosca, Susana: "Understanding Video Games", Routledge, N.Y./London, 2008. p. 4.

affinity towards play Egenfeldt Nielsen mentions employ (or, at least, imply) a definition of play and games that is different from the definitions that underly the field of game studies. The terms "play" and "game" are applied in both cases, but they are used to define different phenomena.

3.1.1 Who defines "games" ?

Following the idea that any academic discipline presents a "small universe"[160] which defines itself by first defining and negotiating its object of research and the strategies adequate for conducting this research, the discipline of game studies, as broad as it may be, is constituted by a set of assumptions about what criteria have to be met by something before it meets the requirements of "play" and "games" in the context of game studies.

When game designer Will Wright talks about the emerging of game studies as an academic discipline, slowly but assertively laying claim to what has hitherto been considered as a craft at best, he rightly employs metaphors of building bridges and developing a language rather than the finding of absolute truths:

> "The bridges between the game industry and the academics that want to study and teach games are slowly beginning to form. A shared language is developing, allowing both sides to speak about games and helping developers to more easily share their experiences

160 see: Jensen, Stefan: "Erkenntnis - Konstruktivismus - Systemtheorie. Einführung in die Konstruktivistische Wissenschaft", Westdeutscher Verlag, Opladen/Wiesbaden, 1999, S. 38

> with one another. It is in this language that the students of tomorrow will be taught."[161]

This shared language, this negotiation of defininitions, is not only beneficial as it helps to internally structure a discipline and makes it possible to exchange ideas based on mutual assumptions, it also delineates game studies from other disciplines, which define an object of research in their own specific way.

Hence, the question is not simply: "what is a game?" but rather: "what is defined as a game in the context of game studies?". One central factor by which the discipline of game studies defines its object of research is the assumption that games 'do not have a function', meaning that playing a game - while it provides certain benefits, or the game wouldn't be played - does not serve a purpose which lies outside of the game world. It is this idea of 'games being without purpose' that contradicts the assumptions underlying the biological approach mentioned by Egenfeldt Nielsen, which seeks to understand play through its function to allow organisms to 'simulate real life simulations', aimed at an 'adaptive advantage', and thereby relies on understanding play through its function, its 'purpose'.

In the game studies discourse, however, the notion of 'games being without purpose' is a central and persistent argument. Historical theories of play and games clearly emphasize the absence of purpose in their definitions. While it has been argued in an earlier chapter that Johan Huizinga implicitly contradicts this notion in his study on 'the play element in culture', his initial definition ex-

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161 Wright, Will, in: Koster, Raph: A Theory of Fun for Game Design", Paraglyph Press, Scottsdale, Az., 2005, p. viii.

plicitly includes the idea that "play is superfluous"[162] and thereby without purpose, while Roger Caillois' definition is even more to the point by stating that play is simply "unproductive"[163].

While the pitfalls of delineating conceptions in regard to the idea of 'play' have been discussed in an earlier chapter, the notion of 'games' as rule-based systems which have no apparent 'purpose' can be argued as a basic assumption defining the game studies discourse. This assumption, however, may still be a bit misleading. Of course, any 'positive effect' that is perceived as part of playing a game within the play activity can also effect the player's life outside the game. But what leads game scholars to the agreement upon the constituting nature of the 'purposelessness of games' is the perception that these positive effects are just that: they are *effects of*, not *reasons for* playing the game.

While theoretical - and definitory - discussions about the criteria constituting "games" and "play" have led to a wide range of different conceptions - and even the 'purposelessness of games' is increasingly challenged when it comes to 'serious 'or 'persuasive games'[164], the notion that desired positive effects might be an explanation *why* games are played is simply not viable in the context of game studies as an academic discipline. Even though games might be designed for a specific purpose, the desire to instill a productive purpose in games can

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162 Huizinga, Johan: "Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 8.

163 Caillois, Roger: "Man, Play and Games", University of Illinois Press, Chicago, I.L., 2001, p. 10.

164 see: Bogost, Ian: "Persuasive Games - The Expressive Power of Video Games", The MIT Press, Cambridge, M.A., 2007; for applications of the 'purposeful games movement' see: http://www.gwap.com (the 'Games with a Purpose' website.

only be ascribed to the game's producers, not its players; the notion that games might serve a purpose may explain why specific games are *made*, not why they are *played*. The moment players engage in a game *because* they expect a productive outcome outside of the game world, the experience disqualifies itself as a manifestation of play as it is defined and employed in the game studies discourse.

But if playing games by definition does not provide a productive benefit for their players, what else can be the reason people willingly, regularly and even joyfully engage in this activity? An obvious answer might be the idea that games are 'fun'. But while playing games can at some times certainly be fun, this concept provides only a limited explanation for humans' desire to play. Players who spend hours organizing their inventory in MMORPGs may do this with a joyful and dedicated attitude, but it is doubtful that this experience is adequately being described as 'fun'; and when a challenging sequence of an action game is attempted over and over again until players finally succeed and can move on to the next level, the experience of constantly being on the verge of frustration puts the idea of 'fun' in even greater distance.

A possible alternative to the idea of 'fun' suggests itself in Raph Koster's attempt to assess the seductive power of games. While Koster explicitly names this attempt 'A Theory of Fun', in the course of his argument a much more encompassing concept seems to emerge:

> "Fun is all about our brains feeling good - the release of endorphins into our systems. The various cocktails of chemicals released in different ways are basically all the same. Science has shown that the pleasurable chills that we get down the spine after exceptionally

> powerful music or a really great book are caused by the same sort of chemicals we get when we have cocaine, an orgasm, or chocolate. One of the subtlest releases of chemicals is at the moment of triumph when we learn something or master a task. [...] Fun from games arises out of mastery. It arises out of comprehension. It is the act of solving puzzles that makes games fun."[165]

Contrary to the explicit use of the term 'fun', Koster implicitly describes what may better be expressed in terms of 'pleasure' and 'satisfaction'. Koster's argument, which is based on the assumption that the human mind's primary function is that of 'pattern recognition', emphasizes the satisfying experience of 'things falling into place', of succeeding in making sense of our perceptions of the world. Contrary to the idea of 'fun', which is a very specific manifestation of pleasurable experiences, pleasure and satisfaction seem to provide much more extensive concepts for the assessment of play as a seductive experience.

But while Koster's argument draws the attention to pleasure and satisfaction, these concepts again require a closer examination before they can provide viable explanations for the seductive power of play. What is needed is a model of human experience that accounts for both, the emergence of pleasure and satisfaction, and the specific nature of play experiences. Again, Koster's reference to chemical processes only goes so far. The production of endorphins may provide a neurobiological basis for the feeling of pleasure[166], but in order to make the question 'Why do people play games?' tangible, an adequate model for this assessment must incorporate the construction of experiences as a prerequisite for

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165 Koster, Raph: "A Theory of Fun for Game Design", Paraglyph Press, Scottsdale, AZ, 2005, p. 40.

166 see: Berns, Gregory: "Satisfaction - The Science of Finding True Fulfillment", Henry Holt and Company, New York, N.Y., 2005.

the emergence of pleasure and satisfaction, while at the same time providing a conclusive model of 'play'.

Before an according model will be developed, however, it seems noteworthy that experiences of pleasure and satisfaction have already emerged as an issue relevant to constructivist debates, and the way these concepts are discussed already hints at a connection between 'pleasure' and 'satisfaction' on the one hand, and the specific qualities of 'play'.

3.1.2 Levels of satisfaction: Ernst von Glasersfeld and 'curiosity'

After holding a talk about constructivist perspectives on learning[167] in the autumn of 2009, Ernst von Glasersfeld was asked how he would explain the idea of 'curiosity', or more specifically: 'how to explain the apparent human desire for learning'. Glasersfeld chose to give two answers to that question: the first answer draws on Jean Piaget's theory of learning, and highlights the assumption that humans are motivated by the desire to overcome obstacles and, more generally, avoid unpleasant experiences. Learning promises to provide strategies that enable this 'successful behaviour'. Similar to the biological conception of 'play', this explanation is based on the idea that learning is acknowledged as purposeful and, therefore, regarded as a desirable experience.

In regard to the pleasurable and satisfying experience of play, Glasersfeld's second answer is far more significant: by stating that it is simply *satisfying* to solve problems, Glasersfeld picks up on one of three 'types of learning' that he dis-

167 Glasersfeld, Ernst von: "Drei Mal Lernen", talk held at the 4th International Heinz von Foerster Congress, Vienna, November 2009.

cussed earlier in his talk: 'learning by abduction'. According to this concept, when people are confronted with new problems, they intuitively imagine 'similar' problems, and test different hypotheses against these imaginary problems in order to reach viable solutions for the problem at hand. According to Glasersfeld, it is this process of problem solving which is deeply satisfying, regardless of the problem's actual significance as a limitation of pleasure. The idea that this process of solving 'virtual problems' may in itself be a satisfying experience, even if no 'actual problem' is solved, hints at a possible relation between pleasure and satisfaction on the one hand, and experiences of play and games on the other. Contrary to the notion of overcoming obstacles as an attempt to avoid unpleasant experiences, this focus on problem solving as an inherently satisfying experience addresses one of the key issues when it comes to questions of games and play: why are players so eager to play games in order to solve problems that wouldn't pose themselves if the game wasn't played in the first place? 'Game problems' do not present obstacles for a successful and pleasant life, they are hypothetical problems, taking the form of artificial puzzles or challenges, which seem to be solved for the sake of problem solving alone.

But *why* is it pleasant and satisfying to solve problems one doesn't really have?

An attempt to address this question needs to consider both of Glasersfeld's answers. Given that it is desirable to solve what we experience as problems, and to overcome what we regard as obstacles to our well-being, this desire calls for strategies or 'tools' which enable this 'successful behaviour'. And it is obvious that the successful application of these tools provides pleasure and satisfaction, simply because this success consists in the avoidance of unpleasurable experi-

ences - hence, in regard to 'actual problems', Glasersfeld's first, pragmatic answer seems sufficient.

But pleasure does not only emerge from the successful elimination of 'actual problems', problems which threaten to endanger our well-being . By applying certain tools and strategies to a problem, these tools and strategies can themselves be tested, expanded or re-assessed. Even in the case of a 'virtual problem', the attempt to solve the problem serves as an opportunity to experience one's *abilities, capacities and skills*, regardless of the significance of the problem at hand.

Experiences of pleasure and satisfaction can, therefore, be identified at three different levels:

(1) Pleasure and satisfaction on the level of specific problems: it can certainly be pleasurable and satisfying to use a hammer to *drive a nail in the wall*, from which I might intend to hang my coat. If it is deemed unpleasant to carry my coat around, or to drop it to the floor, the nail in the wall might actually help to avoid an unpleasant experience.

(2) Pleasure and satisfaction on the level of specific strategies: even if I don't need to hang my coat from the nail, it can be pleasurable and satisfying to see that I can *make deliberate use of a hammer*, a skill which might come in handy at a later time, when a respective problem arises.

(3) Pleasure and satisfaction on the level of meta-strategies: even if using a hammer might not seem an outstanding accomplishment in itself, it can pro-

vide pleasure and satisfaction to experience that I am able to choose adequate strategies when confronted with a problem, and that I am capable of applying and mastering these strategies to a point where the solving of problems is rendered possible. Even if the specific strategy I employ does not have an apparent use, its successful application nonetheless enables a sense of mastery.

It is this third level of pleasure and satisfaction which seems the most significant when it comes to the 'virtual problems' that are presented in computer games. In a game, the pleasure does not emerge from the pragmatic benefits derived from solving a problem, as the 'nail in the wall' is merely virtual, and I won't be able to hang my coat from it. Nor can the success of applying the specific strategy be accounted for the emergence of pleasure and satisfaction, as the game doesn't enable the actual 'use of a hammer', but merely presents an abstracted version of the simulated skill, a skill which doesn't tell me much about my capabilities to cope with an actual nail which might in another context need to be driven in a wall in order to avoid the unpleasant experience of having to carry around my coat all day long. The third level of satisfaction, however, is very well provided by computer games, as even the confrontation with a virtual problem, and the application of abstracted and simulated skills, presents an opportunity to experience my capabilities to assess a problem, to identify strategies adequate to this problem, and to master these strategies in order to succeed.

It is this third level of satisfaction on which a possible answer to the guiding question of this thesis may be found: 'Why do people play games?'. The notion of virtual problems and simulated strategies as sources of pleasure and satisfaction allows to shift the perspective from the pragmatic benefits arising from the

solving of 'actual' problems to the pleasure of problem solving for its own sake. From this perspective, pleasure and satisfaction are not simply 'nature's incentive' for successful adaptation, but experiential categories in their own right, therefore permitting to assess the cognitive processes underlying these experiences.

In order to do so, the next chapters will attempt to develop a model of human experience which takes into account the pleasure and satisfaction inherent to an experience of play. The aim to highlight 'play' as an experiential category, constituting a player-centered rather than a game-centered approach, suggests an anthropological perspective, a perspective which must still prove consistent with the constructivist approach underlying this project. Hence, the close relation between constructivist theory and anthropological approaches will be discussed, before the attempt to develop a constructivist-anthropological model of human experience is commenced.

3.1.3 Constructivist anthropology

While 'anthropology' denominates an established academic discipline, and therefore implies specific traditions of theory and practice, of concepts, methods and cognitive interests, I use the term 'anthropological' as a distinctive formula in regard to the most general implications of the term: the distinctive element of an 'anthropological approach' lies in the attempt to seek certain human traits which are common to all human beings alike, while at the same time being exclusive to the human race.

Any suggestion of such traits is a delicate matter, as this approach contains an amount of generalization that can easily be mistaken for the pretentious claim for absoluteness, and can therefore not be made without certain limitations.

In order to avoid the pitfalls of assuming general truths, these limitations can be derived from two different angles: they can either be limitations in regard to the generality of the statement, or limitations in regard to the assertion of truth.

limiting generality

Limiting the generality of a statement is a common and necessary strategy when the argument derives from objectivist epistemology. Based on the assumption that ontological reality does not only exist, but that the correspondance with this reality determines the quality of the statement, the possibility of a 'true statement' can hardly be given up. Instead, it is the general demand that is relinquished. Examples for this strategy include any kind of purely descriptive research, which insists on the 'truth value' of any single observation, but does not aim at establishing a general statement. The favoring of the 'true' over the 'general' can be argued as a common strategy throughout different academic disciplines including social sciences and the humanities[168].

168 This limiting of a statement's generality is illustrated in the joke about three people riding a train through scotland. When they see a black sheep through the train window, one of them says: "I can see, the scottish sheep are black". The second traveller corrects him: "You mean that some scottish sheep are black". "No", says the third one, "all we know is that there is at least one sheep in scotland, and that at least one side of that sheep is black".

Limiting the generality of a statement is a legitimate strategy when cognitive interest is aimed at specific phenomena which can be treated as singular events, or when it is sufficient to limit the validity of the statement to specific conditions. It does not, however, meet the requirements of what has been called the 'anthropological approach' defined above, as this approach explicitly seeks for 'general human traits'.

limiting the assertion of truth

While the strategy of limiting generality can be summed up as: "It is true, but it is not necessarily a general statement", the complemental strategy of limiting the assertion of truth can be described as: "It is a general statement, but it is not necessarily true". This is the basic limitation of radical constructivist theory, which will be the base for the anthropological model to be developed. The radical constructivist assumption that the quality of a statement cannot be determined in terms of truth but in terms of viability allows for the generalization of the statement, as the statement does not have to be ontologically 'true' in order to be valid, as long as it provides a useful 'tool' to address what is experienced as a problem and to develop strategies to reach what is experienced as solutions.

Constructivism as anthropology

It is precisely this notion of 'it is not necessarily true' that makes it possible to base an 'anthropological argument' on constructivist theory. Without this limitation, it may seem contradictory to make an anthropological statement, assuming a 'logic of man', while at the same time referring to constructivist theory,

which seems to question any kind of 'logic' as an explanatory model by referring to the constructedness of all human insight.

But in limiting the claim for ontological truth, constructivist theory is not only reconcilable with the anthropological argument. In its insistence on its epistemological alignment, constructivist theory discusses the capabilities of human cognition and its limitations, and while these capabilities and limitations are not applicable to all species alike, they are assumed to apply to all human beings in general.

In other words: the constructivist argument is in itself an anthropological statement.

But even the most basic constructivist models do not stop at the sceptical argument of the unreliability of sensual perception. Constructivism does not exhaust itself in the notion that all humans experience is *just* a result of cognitive processes of construction.

What is more important is the question - if the realities we experience are constructions resulting from our minds' work - *under what terms and conditions these realities are constructed*, and how our mind gives shape to these constructions by which our perceptions are organized? How do humans shape their own experiences?

In Glasersfeld's remarks on "the radical constructivist position", this implication of constructivist theory is not only treated as an option, but as an obligation:

> "If one adapts a constructivist orientation, one is obliged to go beyond the mere proclamation that the world we experience is a world we construct. At least one must try to show how what we call 'knowledge' - that is, our successful ways and means of managing our lives and conceptual structures - could be built up; and if one claims to be a radical constructivist, one must also show that this experiential world can be built up without reference to a supposedly 'existing' world."[169]

This assessment of the 'terms and conditions' of constructing an experiential world leads to the presupposition of certain mental characteristics which may give shape to these human processes of construction; the 'rules' which enable the emergence of all kinds of human experience. Glasersfeld's concept of viability and the favoring of the 'operative' over the 'truthful', Watzlawick's notion of the unevitability of cause-and-effect thinking, or Foerster's discussion of the biological conditions enabling (and limiting) experiential 'computation' constitute different conceptual elements of the notion of 'human cognition'.

While these multifaceted examinations form a discourse circumscribing a concept of the functionality of the 'human mind', at no point these concepts are consolidated into an explicit 'logic' of human experience. Implicitly, however, these different concepts form the base of a bigger, comprehensive undertaking, fulfilling the demands of what I would define as 'constructivist anthropology': a logic of man devised in constructivist terms.

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169 Glasersfeld, Ernst von: "Knowing without Metaphysics: Aspects of the Radical Constructivist Position", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 18.

In the following, I will attempt to argue the notion of a certain 'distinctive human trait', which may help to find a viable definition of the idea of 'pleasure' and 'satisfaction' and its possible relation to the experience of 'play'. Following the idea of devising a general statement by means of limiting the assertion of ontological truth, the argument aims to measure up to the demands of what has been defined as 'constructivist anthropology'.

3.2 System Experience

In a previous chapter, it has been shown how Johan Huizinga's attempt to examine the "play-element of culture", while he keeps recurring to ethnological and etymological observations, aimed at uncovering a logic in diversity, still ends up with a distinctly anthropological conclusion: "All peoples play, and play remarkably alike"[170].

I will not claim that the "distincly human trait" the anthropological model I aim at is based upon can simply and conventiently be grasped with the idea of "playing games". This would not qualify for a general model simply because definitions of "play" and "games" vary widely, as has been shown in a previous chapter, when Sutton-Smith's argument on "the ambiguity of play" has been discussed.

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170 Huizinga, Johan: Homo Ludens. A Study of the Play-Element in Culture", The Beacon Press, Boston, 1955, p. 28.

A distinctive human trait

I will, however, claim that a 'distinctive human trait' can be argued which gives rise to the phenomena leading to Huizinga's observation, and can even shed a light on why his cross-reading of the sphere of declared play and spheres of cultural organization labeled as "serious" has proved so yielding. This trait derives from constructivist theory, it is limited by the ontological non-commitment which constructivist theory highlights, and it makes explicit the implicit anthropological character of constructivist theory.

I will label this trait "system experience", and I would describe this trait as follows:

Human beings experience their perceptions of the world as systems.

3.2.1 System Experience and established systems theories

The systems paradigm

At the beginning of the 21th century, the term "system" is anything but an unassigned term. The idea of systems as a productive concept to describe, assert and utilize a wide range of phenomena has become a formative paradigm in the philosophy of science, leaving its mark not only in natural sciences, but on sociological, psychological and cultural studies alike. When in the midst of the 20th century, western society encountered increasing problems in organizing the implications of technological development, the performance of natural sci-

ences, the claim for global political perspectives and even the notion of social change experienced in terms of "revolutions", explanatory models that promised to account for this experience of increasing complexity were in high demand.

One especially promising notion was that of "system thinking". The proposition of systems theorists is as simple as it is seductive: contrary to the well established analytical paradigm, which aims at understanding a phenomenon by understanding the seperate parts it is made of, systems theory aims at considering not only the individual parts of an "entity", but takes into account the interrelations between these parts. Slogans like "the whole is more than a sum of its parts" reflect the notion that it is not only the seperate parts of an "entity" that need to be assessed in order to understand this entity, but that these parts are related and interact with each other, and that it is this interplay that needs to be accounted for in order to cope with the complexity of the phenomenon:

> "Application of the analytical procedure depends on two conditions. The first is that interactions between 'parts' be non-existent or weak enough to be neglected for certain research purposes. Only under this condition, [sic] can the parts be 'worked out', actually, logically, and mathematically, and then be 'put together'. The second condition is that the relationship describing the behaviour of parts be linear; only then is the condition of summativity given, i.e. an equation describing the behaviour of the total is of the same form as the equations describing the behaviour of the parts; partial processes can be superimposed to obtain the total process, etc.
> These conditions are not fulfilled in the entities called 'systems', i.e. consisting of parts 'in interaction'. The prototype of their description is a set of simultaneous differental equations [...], which are nonlinear in the general case. A system or 'organized complexity' [...] may be circumscribed by the existence of 'strong interactions' [...] or interactions which are 'nontrivial' [...], i.e., [sic] nonlinear. The methodologi-

> cal problem of systems theory, therefore, is to provide for problems which, compared with the analytical-summative ones of classical science, are of a more general nature."[171]

It is this idea of interplay between an entity's elements that constitutes the concept of 'systems', and there is hardly an area of examination that seems to have completely eluded the implications of this concept; when Ludwig von Bertalanffy chooses the title for his introduction to general systems theory, it seems almost a battle call: "Systems Everywhere" [172].

While a thorough discussion of systems theories in different disciplines would both go beyond the scope of this thesis and fall short of its objective, it seems appropriate to clarify how a constructivist-anthropological model of system experience deviates from established concepts of systems, and in which aspects it shares or adapts similar notions.

System experience vs. the systems paradigm in established systems theories

a) the deliberate assumption of 'real systems'

If one is to follow the idea of 'systems everywhere', the crucial question to be asked may be: 'why?'. Where do these systems come from? Are they a characteristic of an ontic world, or are they just a way to organize our perceptions?

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171 Bertalanffy, Ludwig von: "General Systems Theory: Foundations - Development - Applications", The Penguin Press, London, 1971, p. 16f.

172 von Bertalanffy, Ludwig von: "General Systems Theory: Foundations - Development - Applications", The Penguin Press, London, 1971, p. 1.

This question leads to the basic problem underlying constructivist theory, which Heinz von Foerster has formulated as the question:

> "Is the world the primary cause and my experience the consequence, or is my experience the primary cause and the world the consequence?"[173]

In regard to the systems paradigm, this question becomes especially noteworthy when constructivist issues flare up at the core of systems theory; in his examination of 'social systems', Niklas Luhmann addresses the question whether systems are 'real' or whether the systems paradigm presents a certain way to perceive reality. His answer is quite definitive:

> "The following considerations assume that there are systems. Thus they do not begin with epistemological doubt. They also do not advocate a 'purely analytical relevance' for systems theory. The most narrow interpretation of systems theory as a mere method of analyzing reality is deliberately avoided. Of course, one must never confuse statements with their objects; one must realize that statements are only statements and that scientific statements are only scientific statements. But, at least in systems theory, they refer to the real world. Thus the concept of system refers to something that is in reality a system and thereby incurs the responsibility of testing its statements against reality."[174]

It is at this point noteworthy how statements like 'systems are real' or the 'testing of statements against reality' may at first glance seem like a deliberate di-

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173 Foerster, Heinz von: "Through the Eyes of the Other", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 67.

174 Luhmann, Niklas: "Social Systems", Stanford University Press, Stanfode, C.A., 1995, p. 12.

gression from constructivist theory and a provocant disregard of the sceptical argument of empirical doubt, which is at the core of radical constructivist theory. Luhmann has discussed the epistemological problem of the constructedness of cognition elsewhere, and has pointed out the necessity to deliberately make distinctions and thereby assume a perspective in order to make observations, as these distinctions are part of the observation rather than being contained in the thing observed:

> "Cognition is different from the environment, because the environment does not contain any distinctions, but rather is as it is. [...] Thus, there is nothing in the environment which equates cognition; because everything that equates cognition is dependent on distinctions, within which it denominates something as this and not that. There are neither things nor events in the environment, if this term [sic] means that that which is to be denominated is different than something else. There is not even environment in the environment, as this term only denominates something by distinction, i.e. necessitates to specify for what system the environment is an environment. And no more are there, apart from cognition, systems. (*Therefore* we have above *said* that there are systems)."[175]

Luhmann's assumption that 'there are systems' is therefore not a naive acceptance of perceptions as reality, but an attempt to account for the necessity to set a cognitive focus by deliberately *assuming* a perspective before any observation can be made resulting from this assumed perspective.

It can further be argued that in his definition of systems Luhmann deals with the sceptical argument by drawing the pragmatic conclusion Glasersfeld has

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175 Luhmann, Niklas: "Erkenntnis als Konstruktion", Bentelli, Bern, 1988, p. 15f. [translation by the author]

suggested[176]: if our perceptions are the closest we get to an assumed reality, then we have to deal with perceived problems in order to reach what we perceive as solutions, or in other words: what we perceive is 'as real as it gets'.

From this perspective, the possibility of 'testing a statement against reality' is consistent with the notion of viability rather than the idea of a depictable ontological reality, and the 'assumption' that 'there are systems' is rather a limitation than a claim. While it is formulated in quite startling terms, Luhmann's statement is in downright accordance with constructivist epistemology.

What is more important at this point, however, is Luhmann's deliberate decision to treat these systems *as if* they were 'natural systems', and to try and observe them *as if* the observer could be excluded from these systems. Again, this is a pragmatic and deliberate decision, and while this methodical exclusion has lead to discussions about the limitations of his approach[177], it reflects the basic perspective of his systems theory: contrary to his epistemological examinations, in his theory of social systems Luhmann is simply not interested in the terms and conditions of human cognition and experience, but in the nature of social systems - be they 'real' or not.

While in the case of Luhmann's 'social systems', constructivist epistemology can be argued as the basis for a deliberate assumption of systems in the 'real

176 see: Glasersfeld, Ernst von: "Siegener Gespräche über Radikalen Konstruktivismus", in: Schmidt, Siegfried J. (Ed.): "Der Diskurs des Radikalen Konstruktivismus", Suhrkamp, Frankfurt/M., 1987, esp. p. 402.

177 In a recent interview, Francisco Varela expressed his reservations against Luhmann's decision to 'eliminate the human being' from his theory in order to accomplish a 'predictable theory' of social systems. See: Heiseler, Till Nikolaus: "Medientheater", Kadmos, Berlin, 2008, p. 258f.

world', the result is not much different from approaches that assume the same perspective *without* incorporating the deliberate nature of this assumption. When Talcott Parsons devises his "Theory of Action", it is made clear that the systems to be observed are conceived of as rooted 'in the physical world':

> "In order to place in context what I consider the relevant problems of a sociology of knowledge, I should like first to sketch a framework for the analysis of all human action conceived as a system. Action, so conceived, is an ordered system of components that root in the physical world and the living organism and that are controlled by cultural patterns and symbols."[178]

This is the first and foremost instance in which the model of system experience I am about to suggest deviates from established systems theories: contrary to approaches focussing on an assessment of the nature of assumed systems, system experience focusses on the systemic terms and conditions of human experience.

b) The systems paradigm as a deliberate perspective

The difference between a focus on the characteristics of systems and the characteristics of experience is only one aspect in which established systems theories and a constructivist-anthropological model of system experience diverge.
Luhmann's rejection of 'systems theory as a mere method of analyzing reality' is a clear demarcation of his systems theory against propositions to use the systems paradigm as a methodological framework to organize perceptions, as a tool of 'purely analytical relevance'. It is a demarcation against a recurring sug-

178 Parsons, Talcott: "An Approach to the Sociology of Knowledge", in: Parsons, Talcott: "Sociological Theory and Modern Society", The Free Press / Macmillan, New York, N.Y., 1967, p. 140.

gestion in systems theories, which Bertalanffy has promoted as a contribution of the systems paradigm to scienctific reflection in general:

> "Against reductionism and theories declaring that reality is 'nothing but' a heap of physical particles, genes, reflexes, drives or whatever the case may be, we see science as one of the 'perspectives' that man, with his biological, cultural and linguistic endowment and bondage, has created to deal with the universe he is 'thrown into', or rather to which he is adapted owing to evolution and history."[179]

The suggestion that the 'systems paradigm' may be an especially useful 'perspective' is not just another new approach; its application is regarded as an emancipatory strategy in the systems discourse, promising not only to 'liberate' scientific examination and theorization from reductionist tendencies; when applied to the understanding and manipulation of social systems, it is promoted as a conceptional tool which may help to improve social interaction through the purposeful 'design of social systems':

> "By studying and working with social systems in the course of the last several decades, we developed an increasing realization of the inquiry power we can gain from systems theory and systems philosophy and their application through systems methodologies. We have liberated ourselves from the constraints and limitations of the analytically oriented and reductionist inquiry mode of traditional science. Systems inquiry enables us to orchestrate the findings of various scientific disciplines within the framework of systems thinking and to develop and apply systems approaches, models, and methods in working with social systems."[180]

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179 Bertalanffy, Ludwig von: Foreword to: Laszlo, Ervin: Introduction to Systems Philosophy: Toward a New Paradigm of Contemporary Thought", Gordon & Breach, New York, N.Y., 1972, p. xixf.

180 Banathy, Bela H.: "Designing Social Systems in a Changing World", Plenum Press, New York, N.Y., 1996, p. 156.

This ‘perspectivist approach’ puts systems theory in close proximity to constructivist epistemology. In regard to the ontological status of ‘systems’, Banathy states

> “[...] that there is no such thing as a system out there. Systems exist as mental pictures in our minds. Saying this another way, systems thinking structures thinking about whatever entity or phenomenon we become aware of and assign meaning to."[181]

But while this approach is much closer to the idea of system experience, as it relocates the systems paradigm from the ‘natural world’ into the realm of human cognition, it regards the systems paradigm as a conscious strategy. The more systems theorists promote the use of the systems paradigm as a useful framework for assessing and organizing perceptions, the more it becomes an optional tool to be chosen deliberately, or to be dismissed at will:

> "Systems thinking is a property of the thinker, who organizes internalized systems ideas, systems concepts, and principles into an internally consistent arrangement, using a systems way of viewing and understanding, in order to establish a frame of thinking. As we observe what is 'out there', this frame of thinking enables us to reflect upon what we experience; thus we construct our own meaning.”[182]

Systems thinking as a conscious tool, enabling us ‘to reflect upon what we experience’ implies that the systems paradigm only becomes important when it comes to the conscious assessment of experiences. While this ‘frame of thinking’

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181 Banathy, Bela H.: “Designing Social Systems in a Changing World”, Plenum Press, New York, N.Y., 1996, p. 156.

182 Banathy, Bela H.: “Designing Social Systems in a Changing World”, Plenum Press, New York, N.Y., 1996, p. 156.

is promoted not only as a methodical tool for scientific examination but as a means to re-think our ways to make sense of and interact with 'real world phenomena' on a much broader scale, it is presented as a consciously applied organizing principle; the accomplishment of systems theory is seen as the development of a method of reflection which can be devised, taught and employed in order to gain a better understanding of a broad range of complex phenomena.

By contrast, the model of system experience which I am about to suggest is intended as a viable model of understanding for human experience, and is not limited to human cognition on a conscious level. It is important to note that the model is intentionally labeled "system experience", not "system thinking". If this model can claim any general quality, it has to be made clear that it does not only apply to rational, conscious thought. This is the second aspect in which experiential systems have to be distinguished from ideas of systems common in established system theories.

c) Human Cognition, perceived as a system

A reformulation of the systems paradigm to relocate it from 'the ontic world' to the realm of human cognition, in combination with the notion that conscious reflection may only be a specific form in which human cognition is connected to the idea of systems, are two relevant aspects of a model of system experience. But there is a third instance in which the concept of system experience needs to clarified to avoid confusion with approaches common in established systems theories. Even when the systems paradigm is used to focus on human cognition, and even when this focus is general enough to allow for conscious and unconscious acts of cognition alike, it has repeatedly been employed in a way that

is very different from the idea of system experience: the notion that human cognition may itself best be examined *as* a system.

When Laszlo brings to the point his theory of cognitive systems, this notion of a systemic nature of human cognition becomes apparent:

> " '*Cognitive System*': a system constituted by mind-events, including perceptions, sensations, feelings, volitions, dispositions, thoughts, memories and imagination - i.e. anything 'present in the mind'."[183]

This definition does not only emphasize an explicit focus on cognition as the object of investigation, it also refrains from limiting this system to conscious processes of reflection. But in this conception, the concept of 'systems' is not only rooted in the terms and conditions of human cognition, cognition itself becomes just another system.

This is the third instance in which a constructivist-anthropological model of system experience deviates from the use of the systems paradigm in established system theories: even if the focus of system experience is on the terms and conditions of human experience, this focus does not necessarily result in a conception of human cognition *as a system*, even if the terms and conditions of human cognition are assumed to *produce* systems.

Even if the assumption that human cognition will always produce systems in order to organize its perceptions seems to leave no other option than also as-

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183 Laszlo, Ervin: "Introduction to Systems Philosophy - Toward a New Paradigm of Contemporary Thought", Gordon & Breach, New York, N.Y., 1972, p. 120

sessing cognition itself as a system, there is a crucial difference between these two assumptions.

This difference between a systemically *organized* mind and a systemically *organizing* mind, however, is not simply a matter of defining a specific perspective. If human cognition does - and does always - organize whatever it perceives in systemic terms, how else can human cognition become the object of observation if not *as a system* itself?

This delicate ambiguity forms a constructivist key problem, and a closer look at the implications of this problem and the significance of a systemic conception of the human mind and its disintegration in constructivist epistemology may help clarify the focus of a constructivist-anthropological model of system experience.

Heinz von Foerster and the systemic 'assembly' of human cognition

In his attempt to discredit a realist world view by examining the biological preconditions of sensual perception, Heinz von Foerster commences with the notion of human cognition being organized *as a system*. While this is the same notion that has been argued to be a common concept in established system theories, Foerster uses this idea to form the base of a very different argument.

The initial step of this argument is derived from neurophysiological enquiries and lies in the observation that whatever stimulus is transmitted from our sen-

sual perceptors to our brain, it can only be perceived in terms of quantity, not quality. :

> "The response of a nerve cell does *not* encode the physical nature of the agents that caused its response. Encoded is only 'how much' at this point on my body, but not 'what'. "[184]

Foerster's argument is based on the physiological setup of the mamallian central nervous system. While the sensomotory units of protozoa and metazoa - very 'simple' biological entities when compare to humans and other mammals - react to sensory change very 'unmediated' by simply changing their spatial position (which again leads to sensory change, as the sensory units themselves change their position in relation to the environment), the evolution of the mammalian central nervous system has lead to the appearance of so called 'internuncial neurons' - units which are placed between the sensory units and the motor units. Whatever input is received by the sensory units, so Foerster's argument, is not directly transmitted to the motor units, but is 'translated' by the internuncial neurons. And no matter whether the sensory input is received visually, auditively, olifactory or in any other way we usually conceive as 'sensually specific', the internuncial neurons translate it into one kind of information: electrical activity. Internuncial neurons, therefore, constitute a perceptive 'filter' which does not allow for simple models of perception based on the idea of analogous representation.

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184 Foerster, Heinz von: "On Constructing a Reality", in: Watzlawick, Paul (Ed.): "The Invented Reality - How Do We Know What We Believe We Know? (Contributions to Constructivism)", W. W. Norton & Company, New York, N.Y., 1984, p. 45.

Therefore, Foerster argues, the quality of sensual perception (i.e. visual, acoustical) can only be grasped as a result of cognitive computations, not a characteristic of an external impulse; thus, human cognition constructs realities through processes of computation:

> "The nervous system is organized (or organizes itself) so that it computes a stable reality."[185]

It has to be noted that, in his argument on the systemic organisation of human cognition as a base for the constructedness of realities, Foerster treats the systemic nature of biological organisms *as if* it presented an objective reality, which in result could 'prove' the constructedness of cognitive realities. On the one hand, this can be seen as a 'tactical move' aimed at building a convincing argument even for those audiences who are attached to a realist world view: even if one complies with a positivist idea of measurement in assessing physical (in this case, neurological) phenomena, and even if the resulting observations are regarded *as if* they constituted objective data on a physical reality, the outcome of the observation still results in the finding that 'objective perception of reality' is simply not a viable possibility. Foerster reduces realist epistemology to absurdity by employing its own means.

On the other hand it can be argued that such an assumptive basis is the only possible way any observation can be commenced, which leads back to the problem addressed in regard to Luhmann's deliberate assumptions:

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185 Foerster, Heinz von: "Through the Eyes of the Other", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 67.

> "We begin with the assumption that all cognitive systems are real systems, in a real environment, in other words: that they exist. It is often objected that this is naive. But how else than naive can one begin? A reflection of the beginning can not be carried out from the beginning, but can only be based on a theory that has already built up sufficient complexity."[186]

Foerster chooses a positivist examination of biological structures to 'begin' his reflections, assessing the nature of human cognition in systemic terms. But not only does he use this positivist examination to simultaneously discredit the viability of positivist epistemology; even within the seemingly positivist derivation of the autopoietic terms and conditions of human cognition, Foerster eliminates the prospect of predictability which may arise from the idea that the human mind can be compared to a system, to a 'machine' which receives input, computes it by means of its own, inherent 'algorithms' and produces a certain 'output'. The base for this elimination is the distinction between two concepts: trivial and non-trivial machines.

What both concepts have in common is that a 'machine' is a system which can (1) receive input, (2) compute this input according to its own, inherent algorithms, or 'functions' and (3) does in turn produce output.
The difference between the concepts of trivial and non-trivial machines lies in the nature of the machines' 'functions', its internal organizing principles.

In the case of trivial machines, the functions determining the computation and, thereby, the output is static, i.e. the machine will always use the same functions to decide which output a certain input results in. The observation of a trivial

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186 Luhmann, Niklas: "Erkenntnis als Konstruktion", Bentelli Verlag, Bern, 1988, p. 13. [translation by the author]

machines will therefore show that a specific input will always produce the same output. Consequently, the observation of the machine's output following a specific input allows for 'reverse engineering' of the machine's internal organizing principle. Hence, trivial machines are analytically determinable and, once the organizing principle is identified, predictable.

This is not true in the case of non-trivial machines, as these machines' internal organizing principle is not static, but changes dynamically: it incorporates previously made computations and the resulting outputs into its algorithms. In other words: a machine that encounters input A *for the first time* may behave and compute this input differently than a machine that *has already* computed input A before. As non-trivial machines will not always produce the same output following the same input, the principle of reproducibility does not apply, which makes these machines analytically indeterminable and, as there is no way to reverse-engineer their internal organizing principle, unpredictable[187].

Obviously, Foerster uses the concept of non-trivial machines as a model for the human mind, extracting human cognition from the sphere of positivist examination. His epistemological argument is at this point still rooted in the application of positivist methdology; but it takes a purely constructivist turn when the

187 Foerster argues that even in the case of a non-trivial machine with no more than four types of input and four types of output, the number of possible variants of computation adds up to 102466, which makes it practically impossible to analytically determine the algorithm by means of observation. see: Foerster, Heinz von: Entdecken oder Erfinden. Wie läßt sich Verstehen verstehen", in: Gumin, Heinz; Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 65. The practical impossibility, however, becomes a theoretical impossibility when either the number of possible inputs and outputs becomes infinite, or when even the terms and conditions of *how* previous computations are incorporated are unknown, and in regard to the notion of human cognition as a system, both instances apply.

concept of non-trivial machines is not only used to describe an object of observation, but is employed as a model applicable to the observing cognitive system. The model of non-trivial machines is expanded to include the observer of another non-trivial machine, who must now be seen as a non-trivial machine herself, both forming an interacting system of non-trivial machines. The result can be conceived of as another, larger non-trivial machine:

> "The foundation for the vast expansion of this interest and activities [in studies of interaction rather than action] is the demonstration of the operational equivalence of an arbitrary large number of interacting non-trivial machines with a single, non-trivial machine recursively operating on itself [...], and the demonstration that under this condition these systems approach dynamic equilibria that go today under various names: fixed points, Eigen-values, Eigen-behaviors, attractors, strange attractors, and so on, which account for the stability of things observed or created, be they objects, concepts, languages, customs, rituals, cultures or whatever."[188]

The implication that an interacting 'network' of non-trivially organized cognitive systems may behave like a single non-trivial machine anticipates the common positivist objection to constructivist epistemology, namely, the apparent reproducibility of empirical observations. This objection is rooted in the experience that different people come to similar conclusions about the things they perceive:

> "One of the standard objections to constructivism, particularly *radical* constructivism, runs somewhat like this: 'There's a book in front of you on the table; you know it's a book, I know it's a book, and any-

188 Foerster, Heinz von: "Through the Eyes of the Other", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 72.

> one who looks at it would recognize it as a book - why do you keep telling us that the book is not *really* there?"[189]

By expanding the systemic assessment of human cognition to a network of cognitive systems, Foerster accounts for the 'computation of a stable reality' on a larger scale: the construction of stable realities on a social level becomes controlled not only by the terms and conditions of a single cognitive system, but by the terms and conditions of social interaction. By this 'turn', realist conceptions are no longer only reduced to absurdity by their own means, they appear as the result of construction processes on a level of social interaction.

Foerster, therefore, does not simply employ a conception of human cognition as a system to argue the constructedness of human experience. He succeeds in taking an argument originally rooted in positivistic epistemology to not only discredit a positivist position, but to provide a constructivist explanation for the emergence of what is easily taken as 'objective reality'.

By taking this turn, Foerster shifts the perspective to the intersubjective terms and conditions of constructing realities and assesses even the observing organism as embedded in a larger system which organizes itself 'so that it computes a stable reality'. The initial 'first distinction' - the assumption of human cognition as a system whose assembly can be approached positivistically - is thereby embedded in a theoretical framework accounting for the constructedness and conditionality of this initial assumption.

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189 Glasersfeld, Ernst von: "Knowing without Metaphysics: Aspects of the Radical Constructivist Position", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 17.

Hence, the introduction of a new perspective implies the occurence of a new ‘first distinction’ which results in an observation that is fit to include the former distinction, a further ‘stepping back’ which makes apparent the conditionality of the original distinction - shifting the ‘blind spot’ underlying the observation which Luhmann has addressed by stating:

> “[...] that the disctinction which a cognitive system uses to make its particular observation is its 'blind spot' or its latent structure. Because this distinction itself cannot be distinguished; otherwise some other - exactly this - distinction would be used as a guiding distinction, and this, again, blindly. And it means the same when one says that all observation calls for and necessitates a demarcation, a cutting through the world, a breach of the 'unmarked space'."[190]

By carrying out this shifting of his ‘first distinction’, Foerster reconciles his argument with the constructivist claim - and lays the base for a constructivist-anthropological model of system experience; while his initial ‘demarcation’ - the assumption of a systemic nature of human cognition - does not comply with the basic assumption of system experience, the shift of perspective resulting from his conclusion opens up a field of observation which also reflects the cognitive interest of system experience: the terms and conditions of human cognition, under which everything takes the form of a system - even if the observation is focussed on the idea of cognition itself.

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190 Luhmann, Niklas: "Erkenntnis als Konstruktion", Bentelli Verlag, Bern, 1988, p. 17. [translation by the author]

The focus of System Experience

In established systems theories, the systems paradigm is sometimes assumed as a characteristic of an assumed 'ontic world'; sometimes it is proposed as a possible and deliberate way to organize perceptions in systemic terms; sometimes it is even drawn upon to understand human cognition itself *as* a system. The constructivist-anthropological model of system experience I am suggesting is focussed on the terms and conditions of human experience; but instead of aiming at an understanding of human experience *as* a system, it is focussed on how human experience *produces* systems, and, to sharpen the point, implies that humans do not *sometimes* experience the world by organizing their perceptions in systemic terms, but that the production of systems is a constituting feature of human experience. As a result of these assumptions, system experience does not ask for any kind of specific system, not even a 'system of human experience', but for the way systems are produced in the human mind as an intuitive way to organize our experiences.

The cognitive interest underlying this model, and setting it apart from other theories employing different ideas of 'systems', can be summarized as follows:

(1) System experience is a model of human experience, not a model of systems. It does not deal with the experience *of* systems, as no assumption about the existence or non-existence of systems in the 'world' is made. Neither does it suggest to approach human cognition as a system. Instead, system experience is based on the assumption that human experience *gives rise* to the systems paradigm; human cognition is understood as the terms and conditions leading to the sys-

temic organization of perceptions: perceptions are organized *as if* they were perceptions of systems or parts of systems.

(2) System experience is regarded as a general condition of human cognition. It is not restricted to conscious thought or reflection. System Experience argues that human experience is based on the intuitive assumption that the world is organized in systems, and that every perception is intuitively assumed to be part of a system; this intuitive assumption is not confined to conscious reflection.

(3) System Experience, therefore, is assumed to be a general human trait. It does not promote the systems paradigm as a tool to be applied to methodical examination at will or implicate that it can be dismissed deliberately. From this perspective, methodical approaches explicitly employing the systems paradigm (e.g. 'systems thinking') are not regarded as unique because they are organized in systemic terms, but because they make the terms of conditions leading to the systemic organization of any cognitive endeavour explicit.

3.2.2 System Experience Everywhere

The assumption that system experience - the organization of perceptions in systemic terms as a general human trait - can be regarded as a precondition for cognitive processes of all kind suggests that virtually any domain of human experience can be employed as an example for the application of system experience. The basic notion of system experience does not suggest system experience as an optional way to organize experiences, but implies that system experience

serves as a general organizing principle, thereby giving Bertalanffy's claim of 'systems everywhere' a more cognitive focus by implying that there is 'system experience everywhere'. When in the following, specific examples serve to illustrate the emergence of system experience, the choice of examples is therefore not intended to show in which specific cases system experience applies, but rather guided by the aim to show the ease and inevitability of system experience as a general human trait.

The idea of 'conclusive arguments' as an application of 'system experience'

When I tried to assess the development of the term "system" and the field of "systems theory" earlier, this is as good an example as any for the inevitable application of system experience: assuming that there is a 'system' of scientific knowledge, I have chosen a set of concepts and summarized them as 'systemic'. (which I was helped by theorists who have conveniently labeled these concepts with the 'systems'-term; there may or may not be numerous concepts that are similarly suitable to 'populate' my 'system of concepts', but do not offer themselves as conveniently). I have assumed *boundaries*, delineating the 'field' of systems theory from other possible fields. I have considered these concepts and their authors, such as Bertalanffy, Laszlo, Luhmann and their ideas, as *elements* being part of this system, implying that the *interrelations* between these authors and their ideas are relevant for a broader concept of 'systems theory'. I have implied a *hierarchical structuring* of these elements, mainly in terms of chronolgy, assuming that there are earlier notions of systems theory which enabled further evolution by later theorists. In this chronological hierarchy, I have implied *strategies* between elements, assuming that the first notion of systems the-

ory was a premise for later theories, finally culminating at the point where I myself 'arrive' at a preliminary *goal* by arguing a concept of 'system experience'.

And ultimately, I have even assumed that this system of "systems theory" is itself an element in another, encompassing *system of systems*, referring to 20th century technology and natural sciences, and to certain aspects of 20th century politics and societal change - evoking allusions to the development of computation, genetics, globalization and civil rights movements, which can all be assessed as constructed concepts, even though they are so broadly defined that they may qualify as social constructions on the level of first order realities.
Finally, this assumption of "systems theory" as a system was made to present me with an *operative* system, enabling me to legitimate my view of "system experience" by presenting a relatively clear background from which to set apart my approach to the application of the systems model - by presenting my own views as elements of a system.

By doing this as part of this chapter, I did not only try to sketch a 'systemic argument', but I did this to present an argument that is fit to convince others who might read it. This does not necessarily mean that these others will agree on the content and implications of this 'system', but it derives from the hope that they will find the argument conclusive - based on the assumption that these others, too, will experience the presented argument in systemic terms, thereby reaching the conclusion that the argument presented implies a conclusive system, that it 'makes sense'.

Taking an academic argumentation as an example for the application of system experience, however, is a little delicate for two reasons. First, the processing of

concepts in a systemic manner and the organization of possible relations between single observations and broader theoretical assumptions (which already suggests a basic systemic approach) might simply be a constituting element of academic practice; at this point, what I call 'systemic' could still be regarded as an established 'tool' to be applied in an academic context.

Second, the example of academic practice strongly emphasizes the rational and deliberate application of systemic procedures, which does not necessarily equate the notion of system experience. As a general human trait, system experience is assumed to emerge on an intuitive level, even before rational reflection takes place.

In order to cover the notion that system experience may be a viable model to grasp the way humans experience the world as a general human trait, measuring up to the claim of an anthropological approach, it is therefore important to discuss the application of system experience in cases where the conscious intent to establish a 'system' is not as self-evident as in academic practice. And as in the academic example, it may be countered that the systems discourse in the 20th century may *indeed* present a discoursive 'system', and that the systemic organization of these elements is therefore not an effect of human cognitive processes, but an effect of the 'factual' discourse, a conclusive example must be found that exposes an application of system experience in a case where a 'factual' systemic organization is not plausible.

What is needed is a case in which elements are offered for peception, which are deliberately designed to contradict the idea of systemic organization. If the perceptions of these elements still lead to a systemically organized experience, it

may seem viable to assume that this systemic organization emerges from cognitive computation rather than from a 'factual' systemic organization of the elements perceived.

Kuleshov revisited

The Kuleshov effect, usually harnessed in regard to montage in film and the contextualization of perception, also clearly illustrates the emergence of system experience - especially as this emergence is not rationally reflected upon as part of the experiment and thereby not dismissable as easily as in the previous example.

The basic experiment is as simple as it is famous:

> "In order to prove the impact of editing on the significance of shots, [Kuleshov] inserted one and the same shot of Mosjukhin's otherwise noncommittal face in different story contexts; the result was that the actor's face appeared to express grief on a sad occasion and smiling satisfaction in a pleasant environment."[191]

As far as this is possible, the arrangement of shots creates an artificial assembly of elements that are not inherently related: they simply present a 'set' of different elements, which may at the most 'belong together' because they are presented one after the other. Whatever relation is stated by the audience, it is clearly a result of cognitive computations, not a reflection of 'factual' relations. The way these elements still are conceived of as related, however, suggests an

191 Kracauer, Siegfried: "Theory of film: the redemption of physical reality", Oxford University Press, London/New York, N.Y., 1997, p. 69.

intuitive employment of system experience, incorporating every aspect necessary to 'sketch' experiences *as if* they were systems. While these aspects are sometimes only employed by implication, they can all be argued to be essential for the meaningful construction of a functional experiential system: the experience arising from the simple setup of the experiment is dependent on the assumption of *borders* - what is part of the system, what is not. When the shot of Moshjukin's face is contrasted with shots of a bowl of soup, a dead woman or a child, these shots are the only *elements* which are contained within these borders. Other possible elements are excluded. While the actual 'contents' of the shots can only be assumed, in the reports there is no mention of the man's clothes, or of the design of the soup bowl. Does he feel hot, because he's wearing a coat indoors? Does he feel snug because he's sitting at a table in a secure home? These possible elements are excluded from the experience, as the simple setup of the experiment does not seem to allow for a very complex system. The only 'additional' element may be considered to be the coffin in which the woman is lying, but this coffin is actually part of a single element: it is a *dead* woman that is seen in the shot, which is not an additional information about the woman, but constitutes the element in principle.

This very confined system, containing very few, specific elements, allows for an accordingly small range of possible *relations*. The base for these relations is the assumption of needs and desires, leading to *strategies* which may or may not be fulfilled: the man is assumed to have positive feelings for the dead woman, implying a desire to share a life with her as an unreachable *goal*, and it is the impossibility to fulfill this desire that leads to the assumption that he may be grieving. Likewise, his desire for the soup is only assumed, just as is the the notion that the soup, while presenting a context for interpreting his feelings, is just

outside his reach: he may see the soup, he does not engage in eating it. The emotion assumed could just as well be joy, if the assumption is made that a waiter is finally serving his food, but there are no elements which point in that direction, there is no waiter and no hint at the fictional setting of a restaurant. The desire for the soup may lead to joy when he gets it, and to frustration if he doesn't; in the simple setup of the two shots, it just results in an assumption of hunger: 'if you hear hoofes, think horses, not zebras'.

A shot of a waiter would probably alter the experience instantly, just as would a shot of a flask of poison or, in the case of the dead woman, the suggestion that the man is, in fact, a vampire hunter. These alterations would suggest another system, in which different elements are related in a different way, leading to the assumption of different desires, goals and strategies.

For an assessment of the application of system experience, it seems notable that the single elements of this experiential system are regarded as ambiguous: the system is not based on a specific goal, which might lead to the assessment of the single elements significance in regard to the goal. On the contrary, it is the mere presence of the elements which in turn leads to the assumption that there must be some kind of goal, or the elements can not be put in a functional relation.

Within the assumed border of the system, the arbitrary elements immediately raise the question which goal needs to be assumed in order to relate the contained elements so that they seem to *present* a system in the first place. In regard to system experience, this is the significant finding of the Kuleshov experiment.

It has to be noted, however, that the widespread accounts of the original experiment may be imprecise in an essential aspect. A later 'recreation' of the experiment - motivated by scepticism regarding methodological shortcomings and possible ideologic bias of the original experiment - has shown that the reported effect did not occur when the reported circumstances were accurately followed. It was, however, suggested that the deviance may be due to an improper evaluation of the 'neutral' expression on the actor's face. The recreated sequence did not call forth anything close to the expected Kuleshov effect when the shots of the actor's face were perceived as expressionless. When these shots, however, were substituted by others which - by a control group, which was presented these shots without the context of the counter shots (soup, woman, child) - were rated as showing an ambiguous emotion rather than none at all, the test audience suddenly started to assume the expected relations:

> "The ambiguous expression seemed to offer a stronger interpretative cue for the viewer than did the expressionless face. If Kuleshovian montage may not be capable of making an expressionless face emotive, it may very well do this with an ambiguous expression, since the objects (soup, coffin, child) provide a context for resolving the ambiguity."[192]

This difference between the perceiced absence of emotion and the perception that some kind of emotion seems to be expressed, but that it cannot be distinctly determined is another important observation in regard to system experience: only when the perception is made that there is *something there*, cognitive processes aimed at 'making sense' of this perception will take place. In the failed Kuleshov recreation, there is no reason to establish a relation between the

192 Prince, Stephen; Hensley, Wayne E.: "The Kuleshov Effect: Recreating the Classic Experiment", in: Cinema Journal 31, No.2, Winter 1992, p. 70.

counter shots and the actor's emotion, as there is no sign of emotion perceived, and therefore no reason to establish a system which accounts for an emotional response of the actor.

When Alfred Hitchcock illustrates the effect on the example of one of his movies *(Rear Window, Paramount Pictures, 1954)*, it is therefore not coincidental that there is no mention of an 'expressionless face'. Instead, Hitchcock's example makes use of a highly ambiguous expression - a smile:

> "In the same way, let's take a close-up of [James] Stewart looking out of the window at a little dog that's being lowered in a basket. Back to Stewart, who has a kindly smile. But if in the place of the little dog you show a half-naked girl exercising in front of her open window, and you go back to a smiling Stewart again, this time he's seen as a dirty old man!"[193]

Only when the perception is made that there *seems to be some kind of emotion* (in this example, revealed by the smile), there is reason to ask: *what emotion is ist?* As a smile seems to be able to convey a wide range of emotions, the specific emotion cannot be deduced from the smile alone. In order to determine the underlying emotion more clearly, an obvious question may be: *what is the smile caused by?*

This question, again, is answered by relating the different shots: through the assumption of a cause-effect relationship, the emotion of the smiling man is now regarded as the effect of what he supposedly encounters: either the dog, or the young woman. While the shot of the dog may imply a state of fond amusement,

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193 Truffaut, Francois: "Hitchcock", Simon & Schuster, New York, N.Y., 1983, p. 216.

the shot of the young woman will better serve the function of providing a cause for his emotion when the emotion is interpreted as libidinal excitement.

The different elements of the assumed system (a smiling man, and an object he seems to be watching) are dynamically arranged in order to relate them in a functional way, guided by cause-effect relations, leading to a conclusive interplay of these elements. This dynamic character of the process does not aim at establishing fixed interpretations of the single elements, but at the sketching of a conclusive system: when the counter shot is changed, the interpretation of the smile changes with it, simply because the prior interpretation of the smile does not make sense if experienced as a causal effect of the new shot, and would thereby threaten the experience of a conclusive system: if the shot of the dog seems to be the cause for the man's libidinal excitement, there is clearly an element of the system not regarded for, which could establish a causal relation between the dog and what has before been determined as the man's lustful smile - and as this missing element can not be determined, the interpretation of the emotion underlying the smile is intuitively changed.

System experience as an anthropological constant

The Kuleshov effect may serve as an example for the application of system experience on an intuitive level. But even if an intuitive application of system experience can be argued, this still does not constitute system experience as a general human trait: system experience may still present a cultural technique, one so commonly applied that it manifests itself on an intuitive level, even before it is rationally assessed.

The assumption that system experience may be a model for human experience on a general level also requires a viable explanation for its emergence independently of cultural habits. If system experience is not to be regarded as a result of cultural influences, where then does it derive from?

Some may argue that the ways humans experience the world are 'hardwired' to the brain[194], that the biological infrastructure of the human mind is built in a way that allows for certain kinds of mental processing, while we are simply not 'designed' to employ others.

But while this basic assumption is most certainly true - whatever the human mind accomplishes must obviously be within the range of what it is physiologically *able* to accomplish - neurophysiological data simply does not aim at providing an 'inside view' of cognitive processes, but at the physiological preconditions of these processes.

Developmental psychology, on the other hand, argues that mental strategies result from learning processes in the earliest stages of human development[195] - raising the question where the ability to 'learn' does derive from in the first place. But Dieter Wyss makes a convincing argument when he traces back the structure of human experience to a set of "basic experiences", which fulfill the anthropological claim of applying to any human being alike. According to

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194 see: Clark, William R.; Grunstein, Michael: "Are We Hardwired? The Role of Genes in Human Behaviour", Oxford University Press, New York, N.Y., 2000.

195 see: Piaget, Jean: "Der Aufbau der Wirklichkeit beim Kinde", Klett Verlag, Stuttgart, 1975.

Wyss, the newborn child traverses a serious of experiences, which build the 'vocabulary' for the emergence of experiential patterns. These patterns in turn determine the organization of later experiences. Through the experience of a parent's presence, for instance, children become aware that time and space do not constitute steady agglomerations of events, but that they are (or can be) structured around the notion of 'presence' and 'absence', and as events that are either occuring at a present time, or that have occured or may occur at another[196]. In the same way, concepts like effort and goals, the difference between the self and the environment, cause and effect or value and beliefs are similar constructions resulting from the child's early experiences.

In this conception, the 'structuring' of experiences is not a 'hardwired phenomenon', but results from continuous processes of action and orientation, in which the idea of 'viability' once again becomes a key concept. While development-psychological models are at the core of radical constructivist theory[197] - and also allude the idea of 'things becoming real through use', which is a key concept of interactivity and computer games[198] -, the experiential categories Wyss describes are also consistent with the idea of system experience: even if he mostly uses a different terminology, his argument may be regarded as a description of the emergence of borders, elements, relations or goals as experiential categories, therefore providing a suggestion of possible 'origins' of the catego-

196 see: Wyss, Dieter: "Strukturen der Moral. Untersuchungen zur Anthropologie und Genealogie moralischer Verhaltensweisen", Vandenhoeck & Ruprecht, Göttingen, 1970, p. 35f.

197 see: Glasersfeld, Ernst von: "Radical Constructivism: A Way of Knowing and Learning", The Falmer Press, London/Washington D.C., 1995, esp. p. 56f.

198 see: Murray, Janet: "Hamlet on the Holodeck", The MIT Press, Cambridge, M.A., 1998, p. 111.

ries constituting system experience, the 'tools' needed to experience our perceptions 'as systems'.

Relations between 'System Experience', media and narrative

As an explanatory framework for the cognitive organization of human perceptions, 'system experience' is only one of various efforts that share a similar claim. As the examples for the ubiquituous nature of 'system experience' also kept touching on issues of narrative (and narratological approaches keep flaring up in discussions of games and play), it seems especially relevant to point out the relation between system experience and "narrative comprehension theory" which also claims to provide a general, ubiquitous framework accounting for the terms and conditions of human experience:

> "Today narrative is increasingly viewed as a distinctive strategy for organizing data about the world, for making sense and significance. As the features of narrative came to be specified more precisely, it was detected in a bewildering number of places: not just in artworks, but in our ordinary life and in the work of historians, psychologists, educators, journalists, attorneys, and others. It became clear that narrative was nothing less than one of the fundamental ways used by human beings to think about the world, and could not be confined to the merely 'fictional'." [199]

"Narrative comprehension theory" - the idea that humans organize their experiences *as if* they were narratives (or, as fantasy author Terry Pratchett puts it,

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199 see: Branigan, Edward: "Narrative Comprehension and Film", Routledge, New York/N.Y., 1992.

that "humans think in stories"[200]) - is certainly different from the notion that humans organize their experiences *as if* they were systems or parts of systems. However, 'system experience' does not render 'narrative comprehension theory' obsolete, but provides a more encompassing framework, which can draw on the notion of 'narrative comprehension' to make specific implications of 'system experience' tangible.

While the proposition of 'system experience' certainly challenges the notion of narrative organization as a way to *think* about the world, i.e. as a framework accounting for the organization of *experience*, narrative organization may still be closely related to the idea of system experience.

Assumed that 'system experience' - the organization of perceptions in systemic terms - is indeed a viable framework for the terms and conditions of human experience, then it can also be assumed that the contingent nature of experiential systems - while at the core of cognitive processes - is in its complexity ill suited for social negotiations without the means to make the contingencies arising from the dynamic nature of these experiential systems tangible. Systemic simulations or, more specifically, digital games provide such a means to put experiential systems 'on record', as it is in digital games that the complex nature of systemic assumptions can not only be experienced, but expressed and offered for negotiation - maybe one of the most significant attractions of games as a media[201]. The use of game design as a means of expression, however, does not

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200 Pratchett, Terry; Stewart, Ian; Cohen, Jack: "The Science of Discworld", Ebury Press, London, 1999.

201 see: Flanagan, Mary: "Critical Play: Radical Game Design", The MIT Press, Cambridge, M.A., 2009.

qualify as an everyday principle, not only because the creation of digital simulations is much more cumbersome and laborious than verbal expression, but mainly because the involvement in playing a game again evokes individual experiences rather than mutual negotiation, even if the systemic statements offered by the game form the base of these negotiations.

While it is a viable assumption that intersubjective negotiations rely on narrative strategies to foster mutual comprehension, the idea of 'narrative' is not simply an alternative to 'system experience'. Without the means to make an assumed experiential system and its dynamic and contingent character tangible in its complexities and contingencies, intersubjective negotiations require a way to communicate these assumptions in a more comprehensible way, and narrative devices provide the necessary articulateness to achieve this task.

Contrary to the dynamic nature of experiential systems, narrations describe a specific manifestation of these systems by depicting one of many possible variations of one of the same system; any narration refers to an underlying experiential system, but while any single narration can only portray one specific course of events that may arise from this system, it is the accumulation of different narrations and their variations that gradually unravel the contingent character of the system.

While the narrative account of "an ambitious businessman being successful in the world of commerce" might simply state the possibility of success in an assumed economic system, a second narrative about a "lazy businessman being unsuccessful in the world of commerce" might add the relevance of ambition to the assumed system's elements; a third narrative about "an ambitious busi-

nessman being unsuccessful in the world of commerce", however, might expand the contingencies of the system by indicating that ambition alone does not determine success in this assumed system of economics, gradually adding to the elaboration of a more and more complex and contingent system.

From a perspective of system experience, therefore, narrations appear not only as a means to express systemic assumptions by providing exemplary 'freeze-frames' of an experiential system's contingencies, it is the idea of different narrations adding to an experiential system which hints at the gradual development of systemic assumptions: in order to accomodate increasingly diverging narrations within already established experiential systems, the assumptions about this system must either gradually become more complex, or the established assumptions must be put into question, if the respective narrative is to be consolidated with the system.

Without the relation to the underlying assumption of experiential systems, however, the notion of 'narrative comprehension' as "one of the fundamental ways used by human beings to think about the world" does not seem viable: while the idea of narratives may account for the ways humans *express* how they think about the world, an assessment of cognitive processes underlying the construction of realities must go further. While narratives may be the basic principle underlying the negotiation and exchange of ideas and assumptions about 'how things work', narratives can only provide specific manifestations of these 'systemic assumptions'; in order to 'make sense' of these exemplary 'results' of assumed systemic relations, any given narrative must be related to the assumption of an underlying experiential system, and either lead to the experi-

ence of ‘making sense’ if the narrative can be reconciled with these systemic assumptions, or disregarded as ‘not making sense’.

Without this relation to ‘system experience’, the idea of ‘narratives’ as an underlying cognitive principle can not account for the *emergence* of narratives, as the lack of contingency within any given narrative does not allow for the emergence of new ones. It is the idea of contingent, dynamic relations of an experiential system which allows the assumption, exploration and expression of alternate possibilities, which may consequently make use of narrative devices and lead to the emergence of new narratives.

Contrary to narratives, experiential systems bear the contingent potential to accommodate a multitude of different manifestations; this potential, however, also highlights one of the basic aspects of experiential systems, which distinguishes the concept not only from the idea of narratives, but also from conceptions of objective or physical systems: experiential systems are characterized by their indetermination. It is this indetermination which will initiate the next chapter’s discussion of the basic aspects of experiential systems, in which a model of ‘system experience’ is grounded.

3.2.3 A Model of System Experience

Based on the assumption that the terms and conditions of human cognition lead to an organization of perceptions in systemic terms, it is necessary to find a way to also assume a specific form these 'experiential systems' may take. This definition of a possible 'form', however, can not aim at an exhaustive set of criteria covering all possible variations of actual experiences. In order to suggest system experience as a 'general human trait', the challenge lies in finding definitions for these criteria that are broad enough to account for the seemingly infinite scale of human experience, while at the same time providing a viable tool for the assessment of experiential systems.

First and foremost, as it is not assumed that these systems are 'real' systems, or even physical systems, but that they are merely assumptions themselves, a definition of these systems must account for the *indetermination* of these assumed systems.

functional (in-)completeness

This indetermination leads to a conception of systems which may to some degree employ aspects similar to those constituting models of 'real' systems; the relation of these aspects, however, does not result in the same notion of functionality which constitutes the idea of 'real systems'.

The main difference between these conceptions lies in the idea of functional completeness: the assumption of 'real' systems necessitates models which allow

for a functional relation of their elements, enabling not only an identification of the assembly of the system, but also accounting for its self-contained behavior. A model of a 'real' system is not complete if it does not account for the functional behavior of the system.

If, for example, a clockwork is assessed as a system, and its functionality defined by physical transmission of power from a spring to an assembly of cogwheels resulting in a movement of the clock's hands at a certain speed, it is necessary to account for a continuous connection between the spring, the cogwheels and the arms. If at some point the cogwheels are not physically connected, the model of the clockwork as a physical system of power transmission does not account for a movement of the hands.

The same is true for less physical 'real' systems, as it is the application of the systems paradigm that demands for functional completeness, not the physical quality of the object assessed. Models of economic systems, for instance, will not account for functional completeness if they only consider instances of supply and demand; in order to provide viable explanations of the system's functionality, they have to factor in a conclusive relation of these elements, for example through economical goods and ways of distribution.

Models employing the idea of 'real' systems demand a completeness that accounts for the system's functionality; they meet their limitations when certain functional aspect of the system are not accounted for.

By contrast, when focussing on human experience instead of the assumption of 'real' systems, the idea of functional completeness has to be given up. Based on

the assumption that under the terms and conditions of human cognition, experiential systems are themselves only *assumed* systems, they can not be disregarded for their lack of functionality. The assumption that human cognition organizes perceptions by assuming that they are systems or parts of systems does in no way imply that these systems really exist, and much less can their functionality be a criterion for their assessment. Contrary to the assumption of 'real' systems, experiential systems may not even constitute 'complete' systems at any given time, they may only consist in a single aspect which is *assumed* to be part of a system - constituting the 'missing elements' only by implication.

Indetermination

This ambiguity and indetermination is a common problem when dealing with the idea of human experience. When Erving Goffman proposes his concept of 'framing' as a model applicable to the assessment of human experience, he encounters the same level of volatility - and the ease with which humans deal with this indistinctness:

> "Primary frameworks vary in degree of organization. Some are neatly presentable as a system of entities, postulates, and rules; others - indeed, most others - appear to have no apparent articulated shape, providing only a lore of understanding, an approach, a perspective. Whatever the degree of organization, however, each primary framework allows its user to locate, perceive, identify, and label a seemingly infinite number of concrete occurrences defined in its terms. He is likely to be unaware of such organized features as the framework has and unable to describe the framework with any com-

> pleteness if asked, yet these handicaps are no bar to his easily and fully applying it."[202]

While system experience proposes a slightly different model to be applied to human experience than Goffman's concept of framing, the problem of ambiguity is the same. Both models are confronted with the same inaccuracy arising from the indetermination underlying human experience and the ease with which it takes place.

This ease of application in spite of the indetermination of the processes applied does not allow for a conception of experiential systems which aims at assessing the systems themselves, implying that they could be treated in the same way the assumption of 'real' systems suggests. Experiential systems can at no point be envisioned as 'whole', working systems, and accordingly be tested and observed.

One way to picture this ease of application in spite of the indetermination of the process applied is the idea of a gardener building a garden-fence - continuously driving fence posts into the ground along a straight line. But instead of using a whole batch of fence posts, the gardener always uses the same one: every time she gets down to driving the 'next' post into the ground, she absent-mindedly reaches back, plugs the last post from the earth and drives it in the next designated spot. The gardener is at every given moment engaged in the act of building a fence, but at the same time never actually building it. There is no fence, only the act of building, and the assumption that the current post is the link between a previous post and the next one - and as long as the gardener holds on

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202 Goffman, Erving: "Frame Analysis - An Essay of the Organization of Experience", Northeastern University Press, 1986, p. 21.

to this assumption, the act of 'building' the fence may seem a meaningful activity.

The idea of a 'fence' is therefore only assumed by the gardener; she assumes that the current post is connected to the previous one, just as she assumes that it will connect to the next post at a later time. For an outside observer, any assessment of this process focussing on the 'fence' will fail, as there is and will never be a 'fence' - only by assessing the assumption of the fence as the base for the gardener's current actions will the gardener's experience of 'building a fence' be made tangible.

Any attempt to assess human cognition and the experiences emerging from its terms and conditions must account for this indetermination. Accordingly, a definition of possible aspects of experiential systems can not imply a functional completeness of these systems, but must account for its experiential focus by incorporating the assumptive nature of these aspects.

Only by taking this assumptive nature into account can a definition of experiential systems succeed in providing a viable perspective on the terms and conditions of human cognition; the following 'aspects' of experiential systems are therefore intended as possible assumptions in the process of organizing perceptions rather than a list of mandatory characteristics aiming at functional completeness.

Aspects of Experiential Systems

In order to make the characteristics of experiential systems tangible, I suggest the following aspects as a preliminary framework for the assessment of system experience:

-) distinctive permeable borders, which define the system and delineate it from aspects that are not part of the system

-) elements which are part of the system

-) a hierarchical structuring of these elements

-) relations between these elements

-) strategies, enabled by the paths resulting from the elements' relations

-) partial goals (on the level of the elements' relations)

-) goals (on the level of the system)

It has to be noted that this 'list' of systemic aspects seems rather banale when employed in regard to assumed 'real', physical systems, as they do not provide any new insight into this idea of systems. It is for just this reason that I will repeatedly employ examples of physical systems to clarify these aspects before they are applied to the indetermination of experiential systems. In order to illus-

trate the manifestation of these aspects in the form of play experiences, these aspects will further be discussed in regard to the experience of digital game-worlds and, more specifically: the MMORPG *World of Warcraft*.

borders and distinctions

The idea of a 'system' (experiential or 'natural') necessitates a delineation of what is considered part of the system, and what is not. To fulfill the requirements of (or simply experience) a system, and account for the qualities enabling for the system's (assumed) functionality, any concept of 'systems' requires the idea of a delineating characteristic, a 'border'.

In the case of the clockwork mentioned above, this border will most likely be some kind of metal or plastic casing, which contains all the parts necessary to make the clockwork 'work'. This border, of course, is in no way impermeable. While it is most likely designed in a fashion that will prohibit the parts to fall out of the casing, and if designed efficiently will even hold the parts in position, it does not provide an 'absolute' border: the casing might not prevent temperature to pass through its hull and it will most likely allow the clock's ticking noise to escape. Though most wristwatches today provide 'water resistance' up to a certain pressure, this is not a feature deemed necessary for the system's primary function, and in the case of high-class collector's watches, the casing might even be equipped with a transparent crystal back to allow visual observation of the clockwork's operations. All the casing does is provide a border for the forces regarded as 'functional' for the system to operate: mechanical parts are to form an 'enclosed' system, and the exchange of mechanical energy providing the clock's functionality must be sufficiently contained within the system

for the clock to work more or less reliably. The border, therefore, provides impermeability in regard to very specific qualities.

In digital games, the concept of borders is rather obvious, and in the form of Huizinga's 'magic circle' is a key concept of the game studies discourse. Even if the 'magic circle' implies a strict delineation between the inside and the outside of a game world, this absoluteness is put into question when Ian Bogost points out:

> "[...] that the magic circle of the game world ruptures into the material world, but yet it does not disappear entirely. Such an understanding of the magic circle disrupts the notion that play space possesses a stable interiority and exteriority. The idea that 'you're either playing a game or you're not' or that games offer an 'artificial space' that contrasts sharply with the material world needs to be revised in light of this new understanding of the magic circle."[203]

In the case of digital games, it may seem that the game world is strictly disconnected from the 'outside world': the avatar the player takes control of and the characters she interacts with, the challenges and the means to overcome them, the quests and the fictional events behind them, they only exist within the gameworld, and they cease to exist when the game ends. But this separation between the 'game world' and the 'world outside the game' is far from absolute. The most obvious link between the game world and its surroundings is the player itself, as without the player's willingness to make decisions and interact

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203 Bogost, Ian: "Unit Operations: an approach to videogame criticism", MIT Press, Cambridge, M.A., 2006, p. 134.

with the game's rules there would not be a game. In a game there is nothing like a 'fourth wall' which - in theory - might be closed down and still leave the virtual events behind it intact; it is the idea of 'interaction' itself that implies that there must be a transfer between the game and its surroundings, that the very nature of the game necessitates openings which enable the constant crossing of the game's borders. Apart from the necessity of interaction, however, the permeability of the game's borders is also a prerequisite for the player's efforts to care for the events and conflicts presented by the game world, which has been discussed earlier in this thesis[204]. The experience of the game's events as relevant and guiding factors for player decisions again requires a transfer between her values and beliefs and the demands of the game world; while this transfer is a general premise of digital games, it gains additional significance when a number of players shares the same game world. In MMORPGs like *World of Warcraft*, the interactions constituting gameplay events and their meaning are not limited to a transfer between a single player and the game, the game world can become a space for the negotiation between myself and an assumed community of players, be it a group of 'friends', a players' guild or the more general 'players' public'. While the game most certainly promises the freedom to explore an alternate world which is *not equal* to the world outside of the game, this world is still connected to this outside world, excluding some of its aspects and obligations, but allowing others to permeate its borders and even inviting them to do so.

This relative impermeability of an assumed border is obvious in the idea of the 'adiabatic' in thermodynamics; the classification of a thermic system's border as

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204 see Chapter 1.2 of this thesis.

'adiabatic' means that this border delineates the system by specifically prohibiting the transfer of heat, while the transfer of other kinds of energy may or may not be possible[205]. This nature of specifying the *quality* of what is prohibited to pass through a border is often neglected in the theoretical assessment of systems, but it is a necessary prerequisite for the validity of these assessments.[206]

While the border constitutes a 'distinctive function' in determining what is part of the system and what is not, it is this 'qualitative alignment' of the border which defines the system's 'universe' even before it is delineated: the 'first distinction' therefore does not lie in the demarcation of a system from its environment, but in the decision under which terms the delineation will take place:

> "This first distinction, as I have frequently said, is analogous to the one the artist makes with the first few lines on a sheet of paper, lines that determine what is going to be 'figure' and what 'ground'. For the point of view I have adopted, the most important thing about that distinction is not *what* is being distinguished, but that the artist makes the distinction *within* the sheet, the canvas, or whatever he happens to be drawing on. Both figure and ground are parts of one and the same sheet."[207]

In Glasersfeld's example, the 'universe' within which the distinction between system and environment takes place is determined by two-dimensional, visual

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205 Atkins, Peter: "Four Laws That Drive the Universe", Oxford University Press, New York, N.Y., 2007, p. 8f

206 see: Foerster, Heinz von: "On Self-Organizing Systems and Their Environments", in: Foerster, Heinz von: "Understanding Understanding: Essays on Cybernetics and Cognition", Springer, New York, N.Y., 2003, p. 1.

207 Glasersfeld, Ernst von: "Knowing without Metaphysics: Aspects of the Radical Constructivist Position", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 19.

delineations - even before it is decided whether the distinctive lines to be drawn will form a line, a square or a circle, and whether they will be drawn in the middle of the sheet or in one of the corners. The decision to make a visual distinction *by drawing on a sheet* (maybe aimed at representing an abstract idea) already excludes the qualities of mechanical power, water pressure or heat transfer as defining characteristics of the distinction.

Only if this limitation is kept in mind can the idea of 'perfect continence' be held up, which George Spencer-Brown chooses as the basic definition of his 'Laws of Form':

> "Distinction is perfect continence.
>
> That is to say, a distinction is drawn by arranging a boundary with separate sides so that a point on one side cannot reach the other side without crossing the boundary. For example, in a plane space a circle draws a distinction."[208]

While a border certainly constitutes a 'distinction' in seperating elements on one side of the border from elements on the other side, the nature of the border itself already constitutes a distinction by defining the nature of the delineation. In other words: the nature of the border is itself dependent on the nature of elements to be separated, and the 'purpose' this separation serves.

In regard to experiential systems, it is this defining character of setting the border which pre-determines what kinds of experiences can emerge. It makes a huge difference whether the daily rising of the sun is assessed as a cosmological

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208 Spencer-Brown, George: "Laws of Form", E.P. Dutton, New York, N.Y., 1979, p. 1.

or a mythological event; while the assumption of a cosmological system might include the idea of planets which behave according to physical laws, the assumption of a mythological system might include very different elements, possibly deities or mythological figures being responsible for the sun's perceived movement[209], or maybe the sun itself being a deity, whose behavior provides explanations for the otherwise bewildering observation of solar events[210].

elements

> "Once a distinction is drawn, the spaces, states, or contents on each side of the boundary, being distinct, can be indicated."[211]

Establishing a border enclosing a system at the same time defines a set of elements which are part of the system, delineating them from other elements which are not.

For the clockwork, the constituting elements may include the spring, the bolts transmitting movement to the hands and a certain number of cogwheels. And *World of Warcraft* does not simply contain 'digital entities', but distinct avatars, NPCs, locations or items with their specific abilities, functionalities, opportunities and "stats".

These elements need to be 'different' from each other; even if the clockwork was to be assembled from a number of identical cogwheels, the single cogwheels

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209 see: Sturluson, Snorri; Byock, Jesse L. (Ed.): "The Prose Edda. Norse Mythology", Penguin Classics, London, 2005, p. 21f.

210 see: Barber, Elizabeth Wayland; Barber, Paul T.: "When They Severed Earth from Sky. How the Human Mind Shapes Myth", Princeton University Press, Princeton, N.J., 2004, p. 179.

211 Spencer-Brown, George: "Laws of Form", E.P. Dutton, New York, N.Y., 1979, p. 1.

need to be different entities to enable functional behavior of the system. If there is only one single element contained within the border, the border does not constitute a system showing functional behavior, but exactly this single element. A single *World of Warcraft* avatar, or a single item, does not constitute a game world, but an allusion to a potential game at best; in the case of the clockwork, a single cogwheel may not be regarded as a system, as it shows no functional behavior on its own (as long as the distinctive quality remains the transmission of mechanical energy).

On the other hand, the nature of a system's elements may allow to regard them as seperate systems themselves: in the case of a personal computer, incorporating a processor, a graphics card and a harddrive, it is obvious how single elements which serve as functional elements in a larger system might also be regarded as seperate systems with their own functional behaviors. This would, however, require a different distinction, delineating exactly these former elements as systems of their own. Under the terms of the current system - be it the personal computer, the clockwork or a digital game - the elements have to be indicated as functional elements of this system.

hierarchies

The quality of 'difference' between a system's elements is not exhaustively assessed by the notion that these elements constitute seperate parts of a system enabling the system's functionality. It is of importance which specific element is effective at a specific 'location' within the system, i.e. at a specific point of the system's operation. The different elements of a system are not in principle interchangeable. In a clockwork, the arrangement of the cogwheels can not be

changed at will without changing (or even jeopardizing) the function of the clockwork.

This arrangement of elements is meticulously employed in the design of digital games: in *World of Warcraft*, players may start with items adequate to the challenges posed to a new player, and use them to gradually acquire higher-quality items and overcome more demanding obstacles; and while a certain 'enemy' may pose a challenging opponent at a certain character level, the same enemy may be unconquerable at an earlier level, or become trivial later in the game. The delicate functionality of the game can only be maintained by the appropriate arrangement of its elements.

This dependence of function and arrangement points to a hierarchical structure of the elements. 'Hierarchical' in this regard does not mark an organization in terms of absolute values; the specific characteristics of the elements, however, induce that a certain element may be integral at one point of the system, while being superfluous or even obstructive at another; conversely, at a certain point of a system a certain element may be vital for the functioning of the system, while another may be needless or impedimental.

relations

The mere presence of elements within a border does not comply with the idea of a system, even if a hierarchical structure of these elements is taken into account. In order for the system to develop functional behavior, its elements must be in some way related to each other. In the case of the clockwork, the cogwheels must physically connect if movement is to be transmitted. A set of cog-

wheels turning in a casing without touching each other will not result in any behavior of the system, but will be restricted to the behavior of its parts. The functional completeness of a personal computer necessitates that the graphics card is plugged into the mainboard, not simply lying on top of the harddrive. And quite obviously, the value of a new weapon in *World of Warcraft* is not determined by its "statistics" alone (e.g. *damage per second*), but by the relation of these "stats" to those of challenging foes (e.g. their *hitpoints*).

This does not mean that the relation between elements must necessarily lead to perceivable action. The functional behavior of a system might just as well be determined by stasis rather than perceivable change. The clockwork may not only contain parts that are related in a way that allows for the transmission of power, some parts may be related so that they restrict this transmission in a specific way.

Accordingly, in the case of experiential systems, it is not the absence of relations that provides explanations for the non-occurence of events. When during the cold war the idea of nuclear deterrence was used to pacify a public terrified of a nuclear holocaust[212], the whole concept was based on the assumed relation between the United States and the Soviet Union; the non-occurence of a nuclear strike was perceived as the result of each state's *awareness* of the other's nuclear capabilities, not as the result of a lack of relations.

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212 for a closer examination of the concept of nuclear deterrence and its historical assessment see: Sheehan, Michael: "The Balance of Power. History & Theory", Routledge, London/New York, 1996, p. 171-176.

Even in digital games, which seem to grant action a much greater role than inaction, the idea of deterrence through assumed relations can become significant. Though obstacles and encounters that are too hard for players of a certain level are sometimes obstructed by technical means, e.g. when players of *World of Warcraft* are simply denied access to a raid instance if they try to enter it without an adequate number of fellow players, deterrence through assumed relations is a common and effective means of game design: the discovery of an oversized 'mob' with a red nametag and a skull instead of a level designation (indicating the enemy as a 'raid mob' or 'epic encounter') does not prompt to engage in a fight, but to flee or evade the enemy. The assumption of the enemy's strength and endurance suggests instant player-death as a certainty, which is related to the inconvenience of losing time and to the damaging of player equipment, which again is related to item repair costs and the spending of in-game money, which again is related to the efforts necessary to obtain this money in the first place. The assumed relations between the game's elements, therefore, are not only a more immersive means to prevent her from taking certain actions than the mere technical prohibition of the action, they also evoke the whole scope of system experience, prompting players to make (obvious) decisions guided by the relation of the system's elements.

strategies and ressources

Relations between a system's elements are a prerequisite if they are to be ressources (or obstacles) for the functionality of the system. The functional behavior is dependent on one question: can the operation of one element influence the operation of another?

The idea of elements which are related to each other while at the same time being of hierarchical relevance for the systems functionality allows for the assumption of 'strategies' applicable to the elements' relations. As the system's functionality is dependent on specific relations between specific elements at a certain point within the system, the connections made between these elements become of strategic importance. The assembly of a clockwork's elements is guided by strategic decisions: will the connection between cogwheel A and cogwheel B lead to a translation of mechanical power desirable for the clockwork's functionality, or is a connection between cogwheel A and cogwheel C more consistent with the system's desired functionality? This may seem banale in the mechanical example, but it is this assumption of strategic relations which is a constituting factor of experiential systems.

As experiential systems are assumed to be a device of cognitive organization, the general 'goal' of these systems lies in the meaningful interpretation of perceptions. While the aspect of 'goals' will be discussed at a later point, it may be anticipated that the assumed relation between elements enables their strategic assessment in regard to an attainable goal: single elements are not simply experienced as unrelated components of a system, but the hierarchical structure and relation between these elements implies that it is desirable to 'get' from one element to another in a certain way.

This idea of 'getting to one point from another' enables to experience a system's elements as 'ressources', as they may not themselves constitute the system's goals, but can be 'converted' into something else in order to make the goal more likely to be attained.

An experiential system of ‘owning a yacht’ may be functionally completed by paying a certain amount of money to buy the yacht. If I don’t own the ressource ‘a certain amount of money’, the ressource of ‘I am a certified accountant’ may be experienced as convertible into a professional occupation providing income, which in turn may be converted into ‘a certain amount of money’, making the goal of ‘owning a yacht’ attainable.

And in digital games, it is the strategies of converting ressources that determine the gameplay possibilities per se. In *World of Warcraft*, the ‘core’ of the game may be seen in the efforts to convert available ressources into those not yet available. The ressource of time might be converted into completed quests, gathered materials or successful bargains in the auction house, which convert into the acquisition of money or items, ressources which again may be converted into better chances to defeat enemies or craft better items. The different possibilities to convert one ressource into another may constitute the most significant aspect for gameplay decisions, determining or at least suggesting players’ strategies of action.

It may seem short-sighted to imply that experiential systems are always aimed at providing strategies of action. But the idea of ‘action’ in this regard does not necessarily comply with Parsons’ notion of observable behavior, rooted “in the physical world and the living organism”[213]. Following the idea that experiential systems provide models for organizing perceptions in a meaningful way, ‘action’ may consist in the intuitive decision to relate certain elements in a certain

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213 Parsons, Talcott: "An Approach to the Sociology of Knowledge", in: Parsons, Talcott: "Sociological Theory and Modern Society", The Free Press / Macmillan, New York, N.Y., 1967, p. 140.

way: if the goal of a mythological system is to provide a satisfactory explanation of the sun's movement across the sky, relating mythological entities in a way that accounts for this perceived phenomenon can be considered as action, strategically aimed at achieving this goal.

More important, however, is the notion that strategies of action do not necessarily result in performing an activity. As means of providing conclusive explanatory models, experiential systems do not in principle call for necessary actions, but more often than not will lead to the (intuitive) assessment that no action is required at all. The assumption that system experience is a general trait applying to the entirety of human experience implies that in most cases the systems we assume are primarily means to provide legitimation for refraining from deliberate activity in terms of a change of behavior: just like the assumption of a mythological (or cosmological) system accounting for the sun's movement across the sky provides an explanation consistent enough not to call for immediate action, it can be assumed that experiential systems generally allow for unhindered operation rather than constant behavioral change in everyday life.

partial goals

'Assembling' a system by relating its elements in a strategic way does not mean that there is only one specific succession of strategies that will achieve the system's functionality. Every time a strategy is employed to 'utilize' the assumed relations of one element to another, the successive element is determined as a 'partial goal' within the system. If alternate 'partial goals' both are regarded as compliant with the system's functionality, the decision which strategy to follow

can not solely be guided by the demands determined by the system's functionality.

If gps navigational systems and route planners can be trusted, the scenic route will get me to the same destination as the fastest route, which again may not be the most fuel efficient route leading to the same destination. The software may suggest all of these routes, as they all comply with the affordance of 'reaching a destination'. As the different routes present contingent strategies to reach the same destination, the software cannot choose the optimal route for me, as long as I do not specify the criteria defining what I consider 'optimal' - a specification which does not arise from the functional demands incorporated in a navigational system, but from the likes and dislikes of the person using it. The system itself only connects elements of a transportanion network in a way that links my current position with a future destination. I have to decide myself whether in reaching this destination I want to spend a minimum amount of time, whether I want to save as much fuel as possible or whether I want to visit the most interesting locations on the way to my goal.

In the case of experiential systems, it is this aspect of 'partial goals' which (beside the goal of the system itself) provides the most obvious connection to the system's 'environment'. Due to the assumptive nature of these systems, this 'environment' can be experienced as the person making the assumption, or may take the form of another, encompassing system, as will be shown later.

Even when achieving the system's goal is deemed necessary, the possibility to choose different strategies and setting different partial goals can enable a certain degree of agency. An experiential system arranging the means to 'get into col-

lege' might present different viable options to achieve this goal. One of these options might be the aspiration of a football scholarship, which may be an 'optimal' strategy for those who enjoy doing sports and experience the challenge of physical training as a tempting concept, presenting a partial goal of satisfying physical accomplishment. For others, a strategy employing hard study and getting good grades may be more tempting, as this strategy, while probably necessitating long nights of mental strain at the library, minimizes the risk of getting bruises, and presents a partial goal of philosophic joy. And for those who favor risk over effort, it may even seem a viable option to kidnap the dean and blackmail the college into admission, establishing the thrill of notorious conduct as a partial goal.

This example, though admittedly overstretched, illustrates several notable characteristics of experiential systems:

(1) First, the setting of specific strategies and the respective partial goals determines the nature of emerging experiences, even if the system's functional goal does not change. Any of the proposed strategies in the 'college' example aim at enabling college admission as the system's functional goal, but each strategy presents very different partial goals as the steps toward this goal, leading to different anticipations. The assumption that athletic achievements are a means to the desired end forms a different experience than the assumption that intellectual accomplishment is the way to go. The setting of specific partial goals may be regarded as the main criterion in determining the character of the experience.

(2) Secondly, this leads to the relevance of contingent strategies for the experience of agency within an assumed system. If, for some reason, the football

scholarship is regarded as *the only way* to get into college, there is no way to engage in the process of shaping the experience of the system according to one's personal preferences. While those with an affinity towards physical exercise may still experience the mandatory strategy as persuasive, those who don't will find it disagreeable, and might even consider renouncing the initial goal. None of them, however, will experience themselves as engaged in the process of shaping the system, as the strategies enabling the system's functionality seem predetermined and do therefore not support an experience of agency.

(3) Thirdly, as the setting of different partial goals does not necessarily change the goal of the system, experiential systems may superficially seem alike even if the specific strategies employed lead to a very different character of the system. Different people may share the same goal in regard to the system, while at the same time experiencing the system in very different ways, depending on their decisions regarding its partial goals. However, this does not determine how these different experiences are dealt with. The initial impression of a shared experience can be scrutinized when the football scholar realizes that the grade-grubbing student experiences the way to college in completely different terms. Then again, the shared goal can serve as a unifying element, when the kidnapper and the football scholar realize that in spite of their very different conduct, they both share a common goal. It is this friction between shared and divergent goals and strategies that is subject to processes of negotiation, resulting in the social construction of second order realities.

(4) Fourthly, due to the indetermination of experiential systems, the difference between a system's functional goals and the partial goals within the system can not be ultimately determined. While the assumption that 'admission to college'

is the system's functional goal may serve to embed the partial goal of a football scholarship in an according functional system, the same elements may simultaneously present a system employing 'playing football' as its functional goal, consequently appointing the aspect of 'admission to college' as a partial goal within the system. It can be assumed that these different systems do not emerge exclusionary, but that many overlapping experiential systems may apply simultaneously. The assessment of experiential systems can therefore not assume a consistent nature of these systems. Instead, the 'sketchy character' of system experience calls for incorporating the idea of indetermination by not only giving up the notion of functional completeness, but by also accounting for the erratic application of experiential systems.

goals

It has already been pointed out that - in the case of experiential systems - the difference between the system's functional goals and the partial goals within the system can not objectively and ultimately be determined. But even the seemingly objective functional goals of physical systems are subject to the same level of indetermination, when it is granted that the respective 'purpose' of physical systems arises from assumptive experiential systems.

In the case of the clockwork, it has only been *assumed* that the functional goal of the system is the movement of the hands at a certain speed - a viable assumption as long as the clockwork is assessed as a tool to be used to measure time. If the specific clockwork is, for example, part of an experimental setup aimed at measuring the accuracy of a specific mode of assembly, or at testing the durability of a new alloy used for the cogwheels, it is this measurement which becomes

the functional goal of the system. The movement of the hands may now be a means to control if and up to which point the assembly provides accurate transmission, or whether the alloy can bear the strain, becoming a partial goal aiming at fulfilling the system's functional goal.

This indetermination may not be obvious in the case of digital games in general, as the goal-oriented character of games is often regarded as self-evident, and the 'goal' of the game seems to congruent with beating and, therefore, ending the game. This conception, however, does not account for the experiential aspects of playing a game, which are not sufficiently explained with the desire to 'get it over and done with'. The indetermination of a game's goals and the partial goals that constitute its course again become apparent in the case of MMORPGs, games in which a designated 'end' is not provided. While an external observation might, for example, content itself with the idea that these games' goal is reaching the highest character level, this notion is contradicted by the fact that this highest level is only a prerequisite to engage in the game's 'high level content', a 'partial goal' required to explore its more challenging and exciting aspects. And while the acquiration of a specific item might be pointed out as a partial goal, enabling success against more demanding foes, this item might present itself as the functional goal for a player's efforts for long stretches of time, temporarily constituting the single aim of her efforts before, through its acquisition, it regains its status as a partial goal and new ambitions are sought after.

The assessment of experiential systems can therefore not rely on a definite conception of the system's functional goal. What serves as a partial goal within an experiential system can effortlessly take the place of its functional goal, drag-

ging along with it what previously constituted the system's function and appointing it the role of a partial goal.

Correspondingly, a mythological system may on the one hand follow the strategy of employing social relations as an explanation for cosmological events, the consistent explanation being the functional goal, while the comprehensiveness of social relations serves as a partial goal to achieve this function. At the same time, the consistency of the explanatory model may be a partial goal, serving as a strategy in legitimating the terms of social relations [214]: the observation that the sun actually moves across the sky - through the linking of cosmological event and social relations - becomes evidence that the social relations used as a base for the explanation are eligible.

With this ambivalent character of the indetermination of their functional goals, the assessment of experiential systems' potential aspects comes full circle and returns to the initial aspect of setting a border by making a first distinction. Just as this first distinction is the 'blind spot' of any experience and pre-determines the distinctive qualities of the experiential system, the difference between the system's functional goals and its partial goals enabling this functionality is not necessarily deliberate, but is subject to the indeterminate character of experiential systems.

For the assessment of experiential systems, this does not only mean that there is no way to ultimately single out a specific functional goal of any assumed expe-

214 see: Lehmann, Winfred P.: "Germanic Legal Terminology and Situations in the Edda", in: Polomé, Edgar C.: "Old Norse Literature and Mythology. A Symposium", University of Texas Press, Austin, TX/London, 1969, p. 227-243.

riential system. It also means that these systems can be constituted by different functional goals simultaneously. But the indetermination of experiential systems also challenges the idea of an ultimately delineated, closed system: if one system is experienced as an element of another, more encompassing system, the system's functional goal now serves as a partial goal in a larger context.

But how does this difference between an experience of discrete, closed systems and an experience of systems embedded in and dependent upon other systems account for the emergence or absence of an experience of play, pleasure and satisfaction? In order to address this relation, it seems appropriate to examine the conditions under which experiential systems can be experienced as either discrete or interrelated systems, and how this difference may serve as a useful category for the assessment of play experiences. This examination, however, requires a closer look at the terms and conditions that guide the experience of systems as either discrete or embedded in other systems.

Systems within systems: Agency, Passivity and Mortification

According to the observation that a system's elements can in some cases themselves be singled out and experienced as discrete, closed systems, any experiential system can correspondingly be experienced as an element of another, more encompassing system. The former system's functional goal becomes a partial goal supporting the newly established system's function.

In order to serve the purpose of a partial goal, however, the former system has to be experienced as a non-operative system, as its specific operations and effects are now pre-determined by their contribution to the encompassing sys-

tem's functionality. Strategies which seemed functionally equivalent and could be chosen 'at will' when the system was experienced discretely - and therefore enabled operational choices - may be evaluated very differently under the terms of the encompassing system, as the system itself now seems to serve a 'higher purpose'.

In the example of a systemic experience of 'college admission', this system can be experienced as one element in an encompassing system of 'advancing a professional career', thereby providing a partial goal in a bigger set of strategies. Contrary to the discrete experience of the different ways to get into college, the experience of demands deriving from the 'larger' system of pursuing a professional career may now determine which of the possible strategies conform with the encompassing system's functionality, and which don't. When professional expertise is assumed to be a key factor of successfully pursuing a professional career, the strategy of studying hard and getting good grades will become more than an optional strategy; it may be experienced as necessary to employ this specific strategy in order to fulfill the encompassing system's functionality. If the experience of the 'career system' emphasizes competition or a multifaceted resumé, however, the focus on sports activities may present a viable or even necessary strategy.

This is not to say that the experience of how one experiential system influences another is determined by rational assessments; as system experience is based on the idea of intuitive assumptions, which may or may not give rise to rational reflection, there is no reason to assume that the factors guiding the interplay of what is experienced as different systems necessarily arises from rational evaluation. What counts is the intuitive assumption, the *feeling*, that decisions within

the system have *consequences* which are relevant *outside* the system's borders, even if this feeling does not hold up to rational assessment.

The difference between an experience of discrete systems and systems as elements of a bigger, encompassing system imposing its functional demands on the encompassed system may be decisive in determining whether the system can provide pleasurable, satisfying experiences, and may even equate to the question whether the experience is one of 'play'.

Before the 'pleasure' of discrete systems and the 'promise of satisfaction' enabling an idea of 'play' can be assessed, however, it is necessary to examine the contrary experience of non-discrete systems, and the different ways in which this experience may hinder the emergence of play, pleasure and satisfaction. As the ideas of 'operationality' and 'choice' are at the core of this difference, it may seem obvious to relate it with the idea of 'agency' - even if a closer look at the concept of 'agency' reveals that it can not simply be equated to pleasure and satisfaction.

different concepts of agency

When a system is experienced as a discrete system, and the decisions made within the system are experienced as having consequences only within the system, different strategies can be employed, tested or disregarded, based on personal likes and dislikes, interests or whim.

This 'freedom of choice' seems to constitute an experience of 'agency', as it allows for a deliberate exploration of the system through making different deci-

sions and exploring the outcome, thereby unraveling the contingency space of the system and gaining increasing competence in operating within the system. In regard to the assessment of pleasure, satisfaction and play, a premature answer may suggest itself: if agency is pleasurable and satisfying, then the experience of agency may be the key to satisfying experiences. From a perspective of system experience, however, this is not a viable suggestion.

Most notably, an experience of agency does not necessarily comply with a concept of 'factual' agency as it is generally employed in the context of game studies. This notion of agency prevalent in game studies does not differentiate between the 'actual' possibility of choice within the game system and the experience of this freedom: when Janet Murray defines agency as "[...] the satisfying power to take meaningful action and see the results of our decisions and choices."[215], this definition does not account for possible discrepancies between the factual possibility to choose different strategies within the system, and the experience that these different strategies are at one's disposal.

In this conception, agency arises from the interplay of two factors: (1) the 'factual' availability of different strategies within the system and (2) the exploration of the resulting possibility spaces through action. For Murray, the experience of agency reflects a factual agency within the game system, which is made accessible by interacting with the system: "When the things we do bring tangible results, we experience [...] - the sense of agency."[216]

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215 Murray, Janet H.: "Hamlet on the Holodeck. The Future of Narrative in Cyberspace", MIT Press, Cambridge, MA, 1997, p. 126.

216 Murray, Janet H.: "Hamlet on the Holodeck. The Future of Narrative in Cyberspace", MIT Press, Cambridge, MA, 1997, p. 126.

While this is a useful approach when it comes to the assessment of games and interactive media as artifacts, highlighting their specific characteristics in comparison to non-interactive media, which do not provide the same kind of 'factual agency', a focus on experiential systems requires a more exact differentiation between 'factual' agency and the experience of agency.

the experience of agency

As has been pointed out, system experience does not focus on the experience *of* systems (which can be argued as the base for Murray's notion of agency), but on the organization of perceptions *as* systems or parts of systems.

Due to the assumptive character of experiential systems, the experience of agency does not necessarily reflect a 'factual agency' which can be explored through action. As a smoker, I may be convinced that 'I can quit anytime I want', thereby experiencing agency in regard to the assumed system, not because quitting will *actually* be this easy, but because I *assume* that the strategy of 'quitting' can be chosen at will. Even if this assumption does not withstand the terms of my 'actual' addiction, it can be kept up as long as and *because* there is no action taken by which the assumption might be verified or disproved. An experience of agency is not necessarily dependent on 'factual agency' provided by the assumed system and verified through explorative interaction.

Conversely, the factual possibility of employing different strategies does not necessarily result in an experience of agency. A lack of experienced agency does in no way mean that taking action aimed at exploring different strategies would

result in failure or disappointment; it may simply mean that these different strategies are not experienced as viable possibilities and therefore not tested in the first place. In a psychotherapeutical context, the negotiation between a predominant and seemingly unavoidable strategy (equatable with an experience of non-agency) and the suggestion of viable alternatives (suggesting 'factual' agency as a possibility) is often regarded as a guiding therapeutic principle:

> "Psychotherapy is effective whenever, through the joint efforts of the therapist and the patient, it brings to light a new meaning, one of the many possible meanings, from the patient's story, and the new meaning makes the symptom unnecessary. [...] Through this process of joint construction, a transformation occurs in the dominat [sic] stories of the patient/family, which allows for the inclusion of new experiences, meanings, and (inter)actions."[217]

This notion of psychotherapy as a loosening up of experiential 'deadlocks' is based on two assumptions: the assumption that (1) the patient's suffering arises from her clinging to specific interpretations (resulting, in terms of system experience, in specific and unavoidable strategies), which seem inevitable to the patient; and the complementary assumption that (2) alternative interpretations (resulting in alternative strategies) are not only possible, but can be made accessible to the patient, hence resolving the experiential deadlock.

The suggestion of alternate 'reality constructions' as a means to enable an experience of agency necessary to enact alternative solutions is clearly favored by psychotherapeutical approaches rooted in constructivist theory, as it dissents with the realist notion predominant in "[...] the long tradition of psychotherapy,

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217 Liria, Alberto F.: "From Interpretation to Commentary: Truth and Meaning in Psychotherapy", in: Journal of Psychotherapy Integration, Vol.10, No. 3, 2000, p. 331.

from Freud to contemporary cognitive therapists, who construe psychotherapy as an authoritative procedure for improving a client's degree of 'reality contact'."[218]. The relinquishing of a realist viewpoint shifts the perspective from 'faulty' interpretations to the question of experienced agency in regard to alternate options: problems may not simply arise because the current interpretation or strategy is objectively 'wrong', but because it has proved useful in the past[219] - therefore presenting itself not only as a (delusive) solution, but at the same time prohibiting the exploration of alternate strategies in the present situation[220].

From this viewpoint, the respective 'problem' does not lie in a 'factual' lack of alternate strategies, but in a self-induced constraint, which does not allow to give up the current strategy, even if it is not (or no longer) viable, or in other words: even though 'factual' agency may be possible, it is not enacted because action is prohibited by a lacking experience of agency.

It can therefore be argued that the notion of an experience of agency being dependent on 'factual' agency which is explored through action is not viable in regard to the assessment of experiential systems. An experience of agency can arise in regard to a system which does not allow for alternate strategies, as long as no action is taken to contradict the assumption. Conversely, the possibility of

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218 Neimeyer, Robert A.; Raskin, Jonathan D.: "Varieties of Constructivism in Psychotherapy", in: Dobson, Keith S. (ed.): "Handbook of Cognitive-Behavioral Therapies", The Guilford Press, New York, N.Y., 2003, p. 395.

219 see: Watzlawick, Paul: Management & Construction of Corporate Realities", in: Watzlawick, Paul: "Münchhausen's Pigtail or Psychotherapy & Reality. Essay's and Lectures", Norton & Company, New York, N.Y., 1990, p. 166ff.

220 see: Watzlawick, Paul: "The Language of Change - Elements of Therapeutic Communication", Basic Books, New York, N.Y., 1978, p. 102.

alternate strategies does not necessarily lead to an experience of agency; instead, an experience of non-agency may prohibit the exploration of these alternatives.

'Factual agency' and 'experienced agency', therefore, present two very different concepts, which may at some times, but not necessarily conjoin. However, while the 'causes' for an experience of agency may not easily be determined, it is this experience of agency which presents one of the possible conditions for an experience of play. But it is not the only one. While play can consist in the experience of available strategies of action, there are examples which suggest that even the converse experience of 'non-agency' may enable an experience of play.

Passivity

The idea of 'agency' as it is conceived of in the game studies discourse is focussed on the experience of choice of actions. Guided by the specific nature of interactive media, it is obvious that activity is the focus of attention. But it does not suffice to limit the idea of pleasurable play to the notion of active engagement. In the case of sexual games of submission and dominance, it is obvious that for the person taking the submissive role, activity and choice are not the appealing aspects of the game, but the idea of passivity and submission. Still, as long as the activities (and passivities) are conducted in form of a game, the idea is to provide pleasure and satisfaction for both partners.

While for the dominant partner, the idea of agency is clearly present, it is not the prospect of activity and deliberate decisions that accounts for this pleasure for the submissive partner, but the relinquishing of independence and auton-

omy. The role of the submissive consists of doing what one is told to do, and enduring whatever 'torment' the dominant partner conceives of. How can this experience of being at some other person's mercy, of sometimes literally being 'flat on one's back' be consistent with the idea of pleasurable play? Experiencing oneself as a helpless victim is commonly not conceived of as a desirable experience, just as the experience of oneself as a sadistic oppressor is rather negatively connotated in daily life.

From the perspective of system experience, the answer is once again the experience of discrete systems. For the submission/dominance game to be a pleasurable experience of play, the prerequisite is the mutual understanding that the playful acts within the system are not related to the system's environment. Maybe even more than in other games, the discrete nature of the experience is emphasized not only by a clear negotiation of the game's beginning and end and the establishment of a clearly 'fictional' setup (be it an adequate 'decoration' of the play-space, or simply by addressing the partner with a fictional name or appellation). It is also expressed by the stipulation of 'safe words', and the facilitation of reassuring security measures - safeguards that are not only important to guarantee physical safety, but also to provide a feeling of mutual trust. In regard to the playful experience of the discrete system, this trust consists in one crucial agreement: the consent that the actions within this system are play actions, that they have no consequences for the world 'outside the game', and that they are not dependent on this outside world's conditions.

Without this agreement, the setup would not be 'play', and the experience would not provide pleasure and satisfaction. If the roles enacted within the game were considered as reflections of more general attitudes, as manifestations

of the participants' 'real' characters and their relationship, the playful experience would give way to the more serious negotiation of these personal attributes and their implications in real life.

Conforming with the idea of a 'magic circle', the game is clearly confined to boundaries of space and time and, more importantly, it is declared that the acts within the game's confines have no consequences outside these confines. The allocation of roles in the game does not reflect the character of the partners outside the game, nor is it conceived of as a manifestation of an imbalanced power structure in real life. As long as the experience of the game as a discrete system holds up, the submissive doesn't need to worry 'am I really a passive, obedient person?', just as the dominant partner doesn't need to ask 'am I really a sadistic control freak?'. The discrete experience of the game rejects the conditions of the encompassing environment, the 'real world', as its guiding terms, just as it confines the implications of its events to the system itself. This discrete experience allows for a mutual exploration of roles and activities, without regarding these events as relevant for or dependent on the evaluation of the bigger, encompassing systems that are assumed to constitute 'real life'.

If agency were the sole criterion for the emergence of pleasurable play and satisfaction, submission/dominance games could provide this experience for the active partner at best. But it has to be assumed that neither agency nor the surrender to passivity itself constitutes this experience. Rather, it is the notion that whatever action is taken or omitted within the game, the consequences are limited to the system, and can be explored without leaving the system's boundaries.

From a perspective of system experience, Bateson's notion of 'play-actions', which are "similar to, but not the same as"[221] the 'serious actions' they resemble can be expanded to include not only actions, but also *inactions* that take place within the game system's boundaries: no matter what decisions are made within the system, as long as the discretion of the system is maintained, it is the *consequences* of activities and passivities alike which do not become 'serious' as they stay within the system's well-defined borders.

This exploration of consequences within a system also hints at the idea of satisfaction: the discrete system promises to not only allow for a range of possible actions to be explored either by enacting or omitting these actions, it also promises that the consequences of these acts will become obvious within the system itself, instead of being effective only in another system, at a later time. The experience of consequences comes full circle with the actions and omissions related to these consequences *within* the system, enabling a satisfying experience.

Mortification

This idea of satisfaction as the exploration of consequences within a discrete system becomes obvious when opposed to the experience of systems as being not discrete, but dependent and related to other, encompassing systems. While this experience might also allow for a broad range of actions or an attitude of passivity, choices of action or inaction seem dependent on the consequences these choices might have for other experiential systems, and it might not even be certain how these encompassing systems can be delineated. When a system's

221 Bateson, Gregory: "A Theory of Play and Fantasy", in: Salen, K.; Zimmerman, E.: "The Game Design Reader - A Rules of Play Anthology", MIT Press, Cambridge, M.A., 2006, p. 316.

borders are experienced as permeable or only vaguely specified, the risk of uncalculable consequences can therefore become great enough to limit the pleasure of exploring the possibilities within the system and experience the consequences of these explorations in a satisfying way.

The limitations arising from the experience of a system as dependent upon larger, encompassing systems do not consist in the absence of possible actions, nor in the impossibility to refrain from action. But the choices guiding what actions to take or to omit are not guided by the system's functionality alone, but by the demands of other, less 'manageable' system. The consequences within the system alone are not the only conditions under which decisions and explorations take place, as the experience of a 'higher purpose' limits the range of what seems viable within the system. In order to denote this phenomenon, which opposes the idea of 'pleasurable, satisfying play', I suggest the term 'mortification', which Erving Goffman[222] has used to describe the surrender of inmates to 'total institutions' in terms of the limitation of individualist tendencies in favor of the totality of the institution's demands: the term 'mortification' does not simply imply the absence of alternate possibilities of action or inaction, but the limitation of options by the assumption of consequences that are not restricted to the system itself, but dependent on larger, encompassing and seemingly more important systems.

Mortification is the surrender to limitations in favor of the demands of systems of 'higher order', in favor of a 'higher purpose'. The options within the system

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222 Goffman, Erving: "On the Characteristics of Total Institutions", in: Goffman, Erving: "Asylums. Essays on the Social Situation of Mental Patients and Other Inmates", Penguin Books, London, 1961, p. 24.

are not explored in a pleasurable, satisfying way, not because these options do not seem available, but *even though* they do.

The concept of 'mortification' is directly related to the idea of 'seriousness' as an opposite of play. An experience of overwhelming complex interrelations between experiential systems, experienced as embedded in larger, more encompassing systems doesn't provide manageable spaces of experience which can safely be explored and approached as 'operative systems'. When everything is experienced as potentially related to everything else, if any action may have unforeseen consequences that go far beyond the current experience, there is hardly any room to safely explore different actions and strategies; instead of enabling the exploration of contingent possibilities and alternatives, it may seem unavoidable to follow well-trodden paths, to accept things 'they way they are', and seek out the 'right course of action' instead of exploring contingent possibilities.

This is not to say that 'the world we're living in' is 'more complex than ever'. Such an argument would for one imply a 'world' whose complexity can be assessed objectively. Furthermore, it can be assumed that 'the world' always seems a little more complex than any available mental concept designed to make sense of it. What can be argued, however, is that the idea of growing complexity is a prevailing element in the experience of an "information age". For this experience of complexity, questions of how information is assesed, how it is distributed and how it is organized in the media are of secondary importance. What is important is that the demand for instant and comprehensive information on the one hand, and the growing distrust of the value of specific in-

formation on the other clearly promotes an experience of increasing complexity that hardly invites an unencumbered attitude of playful exploration.

Instead of this explorative attitude, which enables the application of a multitude of different strategies and evaluate the outcome, certain strategies which have already proven to be 'successful' may be promoted as the 'right and necessary' course of action. These strategies take the place of a formerly contingent system, and instead of allowing this system to be experienced by exploring a multitude of different strategies, a single 'path' through the system is emphasized and presented as obligatory. The system becomes a 'black box', truncated to a static form instead of being experienced as a dynamic, contingent system, and instead of providing the pleasure of exploration, it suggests a single and obligatory course of action.

This mortification in favor of a 'higher purpose' is obvious in everyday, real life activities; for instance, deliberately not paying my electricity bills might provide interesting insights in the functionality of banking, debt collection and the electricity business. But as the paying of my electricity bill seems related to my personal financial management, my quality of life and, finally, more existential needs like illuminating my home and cooking my meals, I don't deliberately take the risk. Usually, the consequences of not paying my bills only become obvious when I don't have the money to do so, and at that point, I will probably not experience these consequences in a playful and explorative mood, but again as an unavoidable and, therefore, unpleasant mishap.

But even the engagement in what is readily called a 'game' can easily become less pleasurable and more 'serious' if this engagement is not experienced as the

exploration of a discrete system, but if the 'borders' of the system seem to dissolve: if *World of Warcraft* is used as a platform to gain the respect of other players, or my skills in *Sim City* are experienced as a measure of my chances of success in real life, the tolerance towards failure can become very small indeed. Instead, it becomes increasingly important to succeed, and in order to do so, the need to employ the 'right' strategies becomes more important than the pleasure of the game itself; the idea of a 'higher purpose' favors the mortification of the experienced system over an emergence of 'play'.

3.3 Play as Pleasure and Satisfaction within discrete systems

There is an old saying: "Quidquid agis, prudenter agas, et respice finem" ("Whatever you do, do it wisely, and mind the outcome"). If the world is experienced as a complex arrangement of interdependent systems, there is a pretty threatening aftertaste to this dictum. When the consequences of my actions or inactions are unclear, the demand to 'mind' these consequences can become a serious burden. But an experience of overburdening responsibilities will hardly leave any room for playful exploration. Even if there is a notion of alternate possibilities, the necessity to operate 'successfully' within the system in order to guarantee a certain outcome seems to call for strategies and assumptions which have already proven successful in the past (or are supposed to have done so), and favors a careful and deliberate approach over the casual and playful, but potentially risky exploration of possibilities whose outcome is uncertain.

In contrast to this 'mortification' - the self-induced abstinence from alternate (and possibly more rewarding) possibilities in favor of the 'higher purpose' of ensuring successful operation - the idea of play as the experience of discrete systems enables an explorative attitude, in which alternate possiblities can be 'played with', tried out, pursued and rejected freely and confidently; as the consequences of actions or inactions are experienced as limited to the system, the system can safely be assessed and re-assessed, its contingencies allowed to 'unravel', instead of truncating the system to the predetermined function within a larger system.

System experience, which has been argued as a basic 'feature' of the human mind, becomes limited or even contradicted when mortification leads to the truncating of experiential systems as 'black boxes' with a predetermined function. As has been argued, the organization of experiences in systemic terms is inherently guided by the dynamic nature of these systems, and as a basic human trait, it unfurls only in the idea of explorative operation and the unraveling of contingencies.

This notion of 'operative systems' finally leads back to Ernst von Glasersfeld's remarks on 'curiosity': it is indeed a pleasurable experience to 'learn', but this pleasure does not arise from the mere acquisition of knowledge, from the fact that some kind of information is gained. It is the way this information is acquired that provides satisfying experiences. Adopting a present understanding - an understanding which is being 'taught and accepted' as approved knowledge - is not pleasurable in itself, as it provides a static conception of knowledge instead of an experience of dynamic and contingent systems. While this appropriation of 'approved' information and strategies is often promoted as efficient and necessary, it also requires this 'allusion to the inevitable' in order to account for its lack of inherent pleasure.

Given that 'system experience' is indeed a general human trait, and that the explorative inquiry of experiences organized as dynamic, operative and contingent systems is a basic mode of mental operation, this 'inquisitive approach' - the living out of Glasersfeld's notion of 'curiosity' - is denied when a specific attitude, interpretation or action is enforced through the idea of inevitability; even if alternate possibilities seem present, they are relinquished in favor of the

'higher purpose' of success, and the experiential system becomes truncated and static, giving way to an experience of mortification.

In order to provide the emergence of pleasure and satisfaction, the experience of systems as discrete and delineated is a necessary prerequisite. Contrary to an experience of mortification, the experience of discrete systems allows to give up the imperative of success in favor of an explorative and ultimately playful attitude, an attitude which is consistent with the intuitive assumption of dynamic, operative and contingent systems; this attitude is constituted by the unhindered application - the 'living out' - of what has been argued as the basic human trait of 'system experience'.

3.3.1 'Why do people play games?'

The assumption that pleasure and satisfaction arise from the experience of discrete and thereby operational systems, in which consequences are regarded as limited to the system itself and can therefore be tried out without the risk of unforeseen ramifications, provides a possible answer to the question posed at the beginning of this chapter and this thesis' guiding question: 'Why do people play games?'.

While a playful attitude, which allows an explorative approach and dynamic operation in regard to an experienced system, is possible in any given situation, it is the idea of games' that makes the suggestion of such an attitude explicit; be it Huizinga's conception of a 'magic circle', Caillois' notion of 'unproductivity' and 'voluntariness', or Bateson's idea of play actions being 'similar to, but not

the same as' the real actions they represent - conceptions of 'games' are inherently guided by a prevailing principle: they describe experiences which are regarded as isolated events, as realms of action (or passivity) in which decisions do not influence the 'outside world', as 'safe spaces' enabling risk-free exploration. The notion of 'games' is equal to the idea of discrete systems.

This conception of 'games' does in no way constitute a definition of games in a realist sense. From a perspective of system experience, which suggests a model of mental organization in systemic terms rather than the experience *of* systems, the idea of 'games' must accordingly be regarded as an experiential category. The notion of 'games' is in itself a social construction, an agreement to regard certain experiences as inconsequential for the 'rest of life'. Labelling an experience as a 'game' constitutes a 'carte blanche' for a playful and explorative attitude, giving free rein to the enactment of system experience, and eliminating any idea of necessity or inevitability. Societal demands are precluded from the notion of 'games', as it is the societal agreement of insignificance itself that denies the idea of a 'higher purpose', and renders an experience of mortification unnecessary.

Games, therefore, describe nothing less but experiences which are considered insignificant and, therefore, available for explorative inquiry without the need to guarantee successful operation. This is, of course, not a statement about the actual significance of these experiences. This question is not part of the present examination and, from a constructivist perspective, it may not even be a viable question. In regard to the experience of play, pleasure and satisfaction, it is much more crucial that the notion of 'games' constitutes an agreement, a construction, which allows certain experiences to be detached from the general idea

of 'real life', and therefore allows for an attitude of explorative operation, for the trying out or neglecting of multiple strategies or interpretations, a playful attitude in which the intuitive application of system experience can take effect, and the mortifying experience of a higher purpose gives way to an experience of unconcerned curiosity. Games, therefore, promote a playful attitude, and through the label 'this is a game', the basic human trait of system experience can unravel and give rise to experiences of pleasure and satisfaction.

Friedrich Schiller's often quoted statement that "man only plays when he is in the fullest sense of the word a human being, and he is only fully a human being when he plays"[223] is far too easily simplified to a contradiction between life's serious burdens and the joys of play. From a perspective of system experience, however, it is the notion of 'fullness' that gives a specific significance to his statement: based on the assumption that system experience is a general, intuitive and universal mode of human cognition, experiences can only become pleasant and satisfying when this mode can blithely be lived out through an explorative and playful attitude - an attitude which is openly invited by the declaration: 'This is a game'. It is this invitation to play, the permission to give in to the basic human trait of system experience, which may serve as a viable answer to the question: 'why do people play games?'.

223 Schiller, Friedrich: "Über die ästhetische Erziehung des Menschen in einer Reihe von Briefen", Reclam, Stuttgart, 2000, p. 62f. english translation: Wilkinson, Elizabeth M.; Willoughby, L.A.: "Friedrich Schiller: On the Aesthetic Education of Man in a series of letters", Clarendon Press, Oxford, 1967, p. 107.

4 Summary, Implications & Conclusion

"What if we've been looking at this all wrong?
What if this is not about physics, but about people?"
(J.J. Abrams)[224]

4.1 Summary

This thesis project has been guided by two different, if complementary, perspectives: on the one hand the idea that an application of constructivist concepts to the assessment of play and games might provide a valuable addition to the theoretical framework underlying the game studies discourse, expanding the range of viable models of understanding applicable to this field of research in a way that allows for a more comprehensive understanding of phenomena of games and play. The other perspective derived from the attempt to expand constructivist theory itself by applying some of its basic concepts to phenomena of play and games, phenomena which not only seem closely related to constructivist epistemology, but also highlight the complex and sometimes contradictory processes guiding the construction of realities, fantasies and make-believe, thereby presenting an opportunity to challenge and re-assess basic constructivist assumptions.

In order to enable this dual perspective, the thesis has focussed on the experiential aspects of play rather than confining itself to an assessment of the content

224 *Fringe*, Season 3 Episode 14 (Bad Robot/Warner Bros. Television 2008)

and structure of games alone; the resulting player-centered approach, however, was guided by the attempt to highlight the multitude and indetermination of possible player experiences without losing track of the significance the game artifact has in constructing these experiences. The discussion of this 'play experience' was hinged on the assessment of a research question which is not only central to the game studies discourse, but also evokes the anthropological dimension of constructivist theory: 'why do people play games?'

The first part of the thesis has highlighted different aspects of 'play' from a constructivist perspective. Basic constructivist concepts have been discussed as starting points for 'constructivist game studies', and the analogies between computer games and constructivist epistemology have been pointed out (see Chapter 1.1). The relation between the artificiality of games and the idea of reality has been examined, and it has been argued that the possibility to satisfy 'real life needs' through playing games is highly dependent on the players' willingness to grant the game's rules a certain reality status by accepting them as guiding factors for their decisions; a willingness which, again, is dependent on the players' desire to experience success and accomplishment and, therefore, hints at the players' crucial role in constructing the significance of the game world, a significance which can be grasped by the notion of 'realization' rather than 'reality'. (see Chapter 1.2). Definitions of 'play' have been discussed, and it has been argued that ideas of 'play' predominant in the game studies discourse are characterized by delineating concepts, defining 'play' in comparison to 'non-play' or 'real life'; the limited viability of these delineating concepts has been shown, and an alternate conception rooted in Friedrich Schiller's 'play theory' and the idea of mechanical play has been suggested. Different examples relevant to the field of game studies have been employed in order to show the vi-

ability and benefits of this conception of play as an intermediating force (see Chapter 1.3). The methodological problems posed by the contingent character of gameplay experiences and the seemingly infinite variations of narratives emerging from these experiences have been addressed, and an attempt has been made to open up these contingencies for methodic assessment, taking into account the multitude and subjectivity of narrations on the players' side, while still making the dependency of these constructions on interconnections with the game product itself tangible (see Chapter 1.4).

The second part of this thesis has temporarily shifted the focus from 'play' to the construction of experiences on a more general level. In the form of three case studies, it has been examined how different experiences can arise from the perception of 'events', and how these events and experiences can be assessed according to the idea of 'first order' and 'second order' realities. A distinction has been suggested between what has been termed the 'experiential set up', constituting the basic elements and their relations subsumized as a perceived event, and the 'experiential perspective' which, through application of values and beliefs, can give rise to very different actual experiences. On the example of the mediated events revolving around September 11th 2001 and the hollywood movie *Independence Day*, the first case study has illustrated how a similar experiential set up can lead to very different experiences, depending on the experiential perspective taken when these events are perceived and assessed, and has highlighted the possibility to examine mediated events in regard to their experiential set up, even before the application of values and beliefs determines a certain interpretation (see Chapter 2.1).

In order to examine the significance of this 'experiential set up' for the construction of experiences arising from playing games and interacting with virtual worlds, the second and third case study have investigated the relation between the experiential set up of a game's fictional backdrop and the experiences suggested by the possibilities of action and decision enabled by its rules and mechanics. An illustration of this relation was based on the observation that the 'contemporary zombie topos', even though it is a common fictional motive in digital games, is completely absent from the world of MMORPGs; it has been attempted to investigate this topos' experiential set up and the different rules and mechanics through which games can either support or neglect the emergence of corresponding experiences.

The second case study has therefore examined the experiential set up of the 'contemporary zombie topos', and has argued that, even before narrative devices are employed, the experiential set up of the topos is a manifestation of the 'horror motive', which has been shown to depend on experiences of isolation and, therefore, experiences of the self, detached from societal demands (see Chapter 2.2). In an attempt to account for the absence of this topos from MMORPGs, the experiential set up established by these games' rules and mechanics has been examined in the third case study, and compared to the genre of so-called Survival Horror Games, which make frequent use of the 'contemporary zombie topos'. On a specific example it has been shown how the experiential set up of MMORPGs suggests experiences of the individual embedded in society, contradicting the experiential possibilities of the zombie topos, while Survival Horror games employ strategies that are highly consistent with the idea of 'horror as isolation'. Ilustrated by this example, the interplay between the experiential set up provided by a game's fiction and the different gameplay

experiences suggested by its rules and mechanics has been argued as a key element in the construction of gameplay experiences. However, while an assessment of an event's experiential set up as a precondition for later experiences might imply a certain 'objective' quality, it has been argued that the concept of 'experiential set up' is consistent with the idea of 'first order realities' - constructions which are based on social and cultural agreements, but constructions nonetheless (see Chapter 2.3).

After the first part of this thesis has outlined basic issues of the assessment of play and games, and its second part has discussed different aspects underlying the construction of experiences through games and media, the third part has addressed the research question more directly: 'Why do people play games?'. Contrary to instrumentalist explanations, which highlight the pragmatic benefits of play, it has been argued that the definitory agreements of the game studies discourse as well as the constructivist approach underlying this thesis call for a focus on the inherent qualities of play, and that it is the nature of the 'play experience' itself that might provide a possible answer see (Chapter 3.1.1). The idea of 'fun' as a general explanatory principle for the fascination of playing games has been given up in favor of the idea of 'satisfaction', which again has been traced back to the pleasure arising from the solving of problems, and argued to be independent from the significance of the problem itself, thereby forming a link to the construction of experiences of 'make believe' and, more specifically, the 'play experience' (see Chapter 3.1.2). In order to make this 'play experience' tangible, the need for an anthropological approach has been argued, an approach which has been shown to be consistent with the concerns underlying constructivist theory (see Chapter 3.1.3). Based on the assumption that the organization of cognitive constructions *as systems* can be argued as a general

human trait, and therefore provides an anthropological perspective on the construction of experiences, an according model of 'system experience' has been suggested (see Chapter 3.2); as the 'systems paradigm' is already an established concept, it has been clarified how a constructivist-anthropological model of 'system experience' deviates from established concepts of 'systems', and in which aspects it shares similar notions (see Chapter 3.2.1). Different examples have been employed to show that the notion of 'system experience' provides a viable model of cognitive organization not only as a deliberate 'tool', but also on an inutitive level; that this mode of organization does in no way imply a systemic organization of an assumed ontological world, but shows even in cases in which a systemic organization has been intentionally excluded; and that considerations on early human development support the notion that 'system experience' may be independent from cultural conventions, but constitutes a basic human trait, therefore meeting the requirements of an anthropological approach (see Chapter 3.2.2). Based on the notion of indetermination as a distinctive feature of experiential systems, a model of system experience has been developed by discussing basic aspects of these systems: *borders*, *elements*, *hierarchical structures*, *strategies*, *partial goals* and *goals* have been illustrated on the example of physical systems, applied to the idea of experiential systems, and assessed in regard to the experience of digital games (see Chapter 3.2.3). Finally, the experience of these systems as *discrete systems*, independent from the demands of other experienced systems, has been pointed out as a constituting factor for the 'play experience': contrary to the 'mortification' arising from the assumption of 'higher purposes', practical constraints or societal demands, the experience of a system as discrete allows for an exhaustive exploration of the actions and consequences within this system, enabling the unhindered application of what has been assumed as the general human trait of 'system experience'. This unre-

served probing of an experiential system's contingencies has been argued as the source of experiences of pleasure and satisfaction, and as the constituting characteristic of the 'play experience', thereby providing a viable explanation for the inherent satisfaction of 'play' and, consequently, answering the research question 'why do people play games?' from a constructivist-anthropological perspective (see Chapter 3.3).

4.2 Implications

As the basic aim of this thesis was to measure up to the dual perspective outlined above - the expansion of the theoretical framework underlying the field of game studies by adapting constructivist considerations to its field of research, and the attempt to use phenomena of play and games as an opportunity to challenge and re-assess basic constructivist assumptions, this project does not seem complete without hinting at the possible implications its findings might have in regard to both, constructivist considerations and the game studies discourse. This discussion is in no way intended to be exhaustive, but an attempt to highlight some of the basic aspects that may provide starting points for further examination.

4.2.1 Implications for the game studies discourse

As a contribution to the field of game studies, it is the idea of 'play as an experiential category' and the constructivist-anthropological model of 'system experience' as a conceptional tool to approach this idea that promise to have the most profound implications for the assessment of play and games. The 'player cen-

tered approach' deriving from this idea emphasizes the importance of individual constructions on the players' side, but - and this has been a recurring issue in the course of this project - it does not promote a mere alternative to the assessment of game artifacts currently predominating the field, but is aimed at the interplay between the multitude of possible player interpretations and the contingency fields of experience opened up by the game artifact itself. This approach suggests a variety of new perspectives on issues relevant for the field.

(1) Shifting the Magic Circle

A focus on the experiential aspects of 'play' might measure up to the decreasing viability of the 'magic circle' idea when the dissolution of a game's borders becomes an objective of game design efforts. On the one hand, games are increasingly integrated into other parts of life by being designed 'for a purpose', be it in the form of educational games, training and advertising games, or in the attempt to apply "the mechanics of gaming to nongame activities to change people's behavior"[225], which is the central idea of the upcoming 'gamification movement'[226]. On the other hand, the demands of an outside world are becom-

225 "Gamification 101: An Introduction to the Use of Game Dynamics to Influence Behavior", Bunchball, Inc., 2010, www.bunchball.com/gamification/gamification101.pdf, p. 2.

226 At the time this thesis is written, the 'gamification movement' may still content itself with the application of 'gamey' adornments and stale incentives to otherwise conventional processes, and remains either unacknowledged by game scholars, or keenly criticized as a 'perversion' of the idea of gaming, e.g.: Bogost, Ian: "Persuasive Games: Exploitationware", in: "Gamasutra - The Art & Business of Making Games", May 2011, http://www.gamasutra.com/view/feature/6366/persuasive_games_exploitationware.php. It might, however, not be long before the same principles that are employed in game design are actually inherent parts of business and commerce, and while the 'purpose' of these efforts might differ from common notions of 'gaming', and even deserve criticism, their investigation still seems justified.

ing more and more dominant within games, which is not only apparent on an abstract level when questions of 'morals and ethics in games' are concerned[227], but shows in a quite pragmatic way in the growing implementation of 'micro-transactions' as a source of revenue for the game industry, which makes the 'greater demands' of everyday life - in the form of financial transactions - an inherent part of game mechanics.

These examples let the idea of a 'magic circle' as a constituting factor of games appear unhelpful or even obsolete, and call for a shift of perspective which might be consistent with this thesis' considerations. A focus on play as an experiential category allows to go beyond the limitations of the structure of game artifacts, and suggests a closer examination of the construction processes on the players' side. While the idea of 'borders' has been a central aspect of this thesis, these borders are not regarded as constituted by the game artifact, but as experiential borders, which to draw is incumbent on the game's players rather than its designers (see Chapter 3.2.3). Questions arising from this conception of play as an experiential category might include:

What can games do to support an experience of play, even if the game artifact is connected to real life problems, demands and obligations? Are respective 'game systems' still made accessible for free exploration if the 'higher purpose' of organizing real-life actions and decisions is a driving force behind this game? How can an experience of play emerge *even if* the game artifact is connected to our everyday problems, demands and obligations? What is the players' contribution to this emergence, and how does it change their experience of processes outside the game? How influential is the players' desire to experience play

227 see: Sicart, Miguel: "The Ethics of Computer Games", The MIT Press, Cambridge, M.A., 2009.

when this contradiction threatens to hinder its emergence? And - drawing on this thesis' considerations on play as an intermediating force - does this contradiction itself become subject of playful negotiation?

(2) Meaning Generation

Assessing the different ways games generate 'meaning' is one of the central concerns of the game studies discourse; not only has the desire to use games as a means of expression, education or persuasion lead to growing interest in games' potential to express ideas and make complex relations tangible, the question how games can achieve this potential is also at the center of attention when it comes to assessing possible negative effects games can have on their players, be it the concern about virtual violence or the discussion of morals and ethics in games.

All these perspectives on games' potential to generate meaning easily lead to a rather onesided conception about games as a 'cause of meaning' and the 'effects' they might have on their players. While this conception allows to focus on a clear-cut idea of game artifacts, it seems obvious that any attempt to address the emergence of 'meaning' as a cognitive phenomenon must employ a more encompassing view by accounting for the players' role in constructing this meaning. This view does not disregard the necessity to gain a better understanding of game structures as a significant part of these constructions; it does, however, require a closer examination of the interplay between game artifacts and cognitive processes on the players' side, as the creation of meaning, while it may use a game's specific terms and conditions as its starting point, is always incumbent on the players. This interplay may be important for an understand-

ing of constructing meaning in traditional media, but it is even more significant in regard to digital games: as this thesis has tried to show, players do not simply enact and interpret gameplay events, it is the application of players' values, beliefs and interpretations which in turn determines the form these gameplay events take (see Chapter 1.4). This thesis has suggested a variety of conceptional tool to make this interplay more tangible:

A conception of play as an intermediating principle, enabling the negotiation between contradicting demands, has been suggested, and its benefits discussed on various examples (see Chapter 1.3). This conception brings into focus the space opened up between these contradictions, a space which emerges between the contradictory demands of the game world, and the players' effort to make sense of actions and decisions possibile within the game world's rules. One side of this interplay has already become an integral part of the game studies discourse in the notion of rule-based statements as games' basic expressive means, made accessible by the idea of 'procedural rhetorics'[228].

But the examination of a game's rules alone does not account for the emergence of experiences and the construction of meaning. While it is valuable and even necessary to evaluate the expressive strategies of games, this evaluation will only illuminate one aspect of this emergence, the 'systemic statements' game designers can make by modelling their conception of certain issues and events: "In my opinion, this is how (violence/love/economy/injustice/a world after the zombie apocalypse) works." The emergence of experiences and meaning is dependent on the game facilitating processes of negotiation within these statements' conditions by prompting players: "What do you make of it?".

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228 see: Bogost, Ian: "Persuasive Games - The expressive Power of Videogames", Boston, M.A., 2007.

In order to get a clearer conception of the different parts of this process, this thesis, guided by the idea of first and second order realities, has suggested a differentiation between a game's 'experiential set up', characterizing the contingent spaces opened up by a game's rules and mechanics, and the 'experiential perspective' taken by players when values and beliefs are applied to and tested against the game world, and actions and decisions within the terms and conditions of the game are explored in an effort to 'make sense' (see Chapter 2).
While this differentiation initially delineates the different aspects which determine the experiential space within which meaning is generated, the attempt to examine the efforts to 'make sense' themselves have led to 'system experience' as a model to make tangible the terms and conditions under which this meaning is generated by suggesting a viable conception of how experiences arising within this space may be organized (see Chapter 3.2). It has been a core argument of this thesis that the experiential spaces opened up between players and the rule-based 'statements' of the game world *can* be made tangible, if they are approached according to their contingent character and as a result of the interplay between both instances, and the concepts developed in the course of this argument may provide useful tools for assessing this relation and the experiences and 'meanings' it enables.

(3) Expanding 'play'

Even the most thorough investigation of the interplay between the experience of play and the terms and conditions provided by game artifacts cannot hide the most crucial implication of the idea of 'play as an experiential category': if it is the experience of systems as discrete which gives rise to the satisfying experi-

ences of free exploration constituting 'play' (see Chapter 3.4), then the discussion of this idea of 'play as an experiential category' cannot be limited to the observance of 'play' emerging from designated 'game artifacts'. While these artifacts are designed with the intention to give rise to 'play', following the common notion that "games create play"[229], an assessment of 'play as an experiential category' suggests that it it also a viable assumption that 'play creates games', that the emergence or absence of the 'play experience' decides whether a 'game artifact' actually takes the form of a 'game', or merely presents an interactive system, utilized and explored under the terms and conditions of 'real life' purposes and demands; conversely, each and every domain of 'real life' can take the form of a 'game' if it is experienced as a discrete system and open for free exploration and, therefore, experienced under the conditions of 'play'.

From this perspective, virtually everything can be thought of *in terms of* a game, as a 'game' is no longer regarded as a specific 'thing', an artifact fulfilling certain structural requirements, but as an organizing principle that may underly the most diverse domains of human exertion and experience, an organizing principle which comes into effect through the emergence of 'play'. When 'play' is no longer thought of as a certain way of action, but as the experiential precondition bringing forth 'games' as its manifestation, as an attitude rather than a specific activity, then 'games' may be found in many different domains, and quite independent of the intention to design and create a 'game artifact'.

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229 Salen, Katie; Zimmerman, Eric: "What is Play?", in: Salen, Katie; Zimmerman, Eric: "The Game Design Reader: a rules of play anthology", MIT Press, Cambridge, M.A., 2006, p. 83.

In this regard, a focus on the emergence of 'play experiences' might provide an expansion of the game studies discourse in two different directions: for one, efforts to widen the scope of strategies game design can employ might benefit from an observation of 'games' being played off the beaten tracks of established 'game definitions'. By drawing on insights about the emergence of play not arising from artifacts designed as 'games', but enabling this experience nonetheless, an assessment of games as a mode of negotiation, a form of expression and a way of organizing our experiences might serve to extend the range of game design strategies and the variety of 'game artifacts' imaginable in the future.

The more significant implication of this approach, however, is that the field of game studies, game theory and even game design might itself find its conceptional expansion by opening up whole new areas of investigation. A conception of 'games' not as a set of interactive design strategies enabling 'play', but as a manifestation of playful attitudes in the form of discrete experiential systems would suggest a wide range of 'real life phenomena' to be investigated under the terms of play and games. Instead of limiting the field of game studies by a strict focus on designated 'game artifacts', an according conception might make methods, concepts and perspectives deriving from the game studies discourse applicable to a variety of activities and interactions that are usually regarded as 'serious' and part of 'real life'; an according approach to these phenomena might not only allow to assess them 'as games', but also to examine the implications of an emergence or absence of an experience of 'play':

Which of these phenomena can be experienced in terms of play and, therefore, as 'games'? If they can, what are the preconditions for this experience? Is an according experience supported by the way these phenomena are organized, dis-

cussed and negotiated? Can the emergence of 'play' be supported by changing the ways of organization, discussion and negotiation? Is this emergence desirable, as it enables an emancipatory attitude, or is it objectionable due to the gravity of possible consequences? When is an attitude of 'play' deemed benefactory, when gratuitous or even irresponsible?

As these questions show, an according assessment does not only promise to provide novel insights about 'real life' phenomena, but is also linked to more fundamental considerations about societal as well as individual values and beliefs underlying the evaluation of these phenomena. From this thesis' perspective, however, these considerations are closely related to the emergence of the 'play experience' and the resulting manifestation of 'games', and offer themselves as future challenges for the field of game studies, be it the development of viable approaches to 'gamification efforts' aiming at the use of actual game design strategies in business and commerce, be it the evaluation of emancipatory strategies in processes of societal negotiation, or the use of game theoretical approaches for a more thorough understanding of the terms and conditions of interactions commonly regarded as 'serious'.

4.2.2 Implications for constructivist theory

While the application of a constructivist perspective to the field of game studies has implied a variety of possible expansions for this discipline, the implications of using observations of play and games as a 'testing ground' for constructivist theory are much more straightforward, if no less significant. One of these implications has already been at the core of this thesis when a model of 'system expe-

rience' has been proposed as a viable framework of human mental organization (see Chapter 3.2), aimed at the general terms and conditions underlying the construction of cognitive realities, which have been argued as a key concern of (radical) constructivist theory (see Chapter 3.1.3). But the suggestion of 'system experience' does not constitute a re-evaluation of constructivist theory, but a provisional result of its basic assumptions.

The assessment of play and games, however, has raised questions which may challenge these assumptions on a more fundmental level, a level on which the attention is drawn to a basic presupposition underlying constructivist theory.

Even if radical constructivist theory is guided by an 'ontological non-committment' that does not claim to make any statements about ontological reality[230], even if it considers the possibility that 'the world' may be the effect of our experiences rather than their cause[231], and even if the idea of 'cause and effect' itself is explicitly challenged[232], there is one basic notion that underlies radical constructivist considerations which still remains an unchallenged assumption about the relation between an experienced world and the efforts to make sense of it through processes of reality construction: namely, that a dis-

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230 see: Glasersfeld, Ernst von: "An Introduction to Radical Constructivism", in: Watzlawick, Paul (Ed.): The Invented Reality. How do we know what we believe we know? (Contributions to Constructivism)", Norton & Company, New York/London, 1984, p. 24.

231 see: Foerster, Heinz von: "Through the Eyes of the Other", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 67.

232 see: Watzlawick, Paul: "Effect or Cause?" in: Watzlawick, Paul (Ed.): The Invented Reality. How do we know what we believe we know? (Contributions to Constructivism)", Norton & Company, New York/London, 1984, p. 63-68.

tinction can be made between the experience of obstacles, problems or conflicts on one hand, and the resulting desire to overcome these obstacles, solve these problems or resolve these conflicts on the other. Maybe due to the central role the re-discovery of Jean Piaget's considerations on cognitive development has for the radical constructivist argument[233], this assumption is not explicitly made an issue or even questioned, but resonates at the core of constructivist theory:

> "The constructs with which we have furnished our experiential world are those we have found useful or, at least, tenable. We use them in our schemes of action and in our conceptional operations; we drop or modify them if their rate of failure gets too high and we are able to construct more reliable ones; and we try to balance and coordinate them among each other. The more generally they are applicable, the less of them we need. And, given the variety of situations we come to distinguish, economy in the number of schemes becomes an important consideration."[234]

Not only does radical constructivism claim to be an instrumentalist approach[235] when it comes to its own status as a theory, it also implies the same instrumentalism as a conceptional precondition for its considerations, as an unquestioned premise of the cognitive construction of realities: based on the assumption that obstacles, problems and conflicts are constitutive part of human perceptions - no matter whether they are regarded as arising from an 'ontic world' or whether they are themselves considered to be experiential categories - cognitive

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233 see: Glasersfeld, Ernst von: "Radical Constructivism: A Way of Knowing and Learning", The Falmer Press, London/Washington D.C., esp. p. 53-75.

234 Glasersfeld, Ernst von: "Knowing without Metaphysics: Aspects of the Radical Constructivist Position", in: Steier, Frederick (Ed.): "Research and Reflexivity", Sage Publication, London / Newbury Park / New Delhi, 1991, p. 20.

235 see: Glasersfeld, Ernst von: "Konstruktion der Wirklichkeit und des Begriffs der Objektivität", in: Gumin, Heinz / Meier, Heinrich: "Einführung in den Konstruktivismus", Piper, München, 2005, p. 14.

constructions of realities are regarded as attempts to overcome these obstacles, solve these problems and resolve these conflicts in order to enable succesful operation, a notion which implies a human desire to avoid these impediments as good as possible.

This recurring idea of cognitive processes as a means to enable successful operation highlights the anthropological dimension of constructivist theory, as it goes beyond the scope of epistemological considerations on the capabilities and limitations of gaining knowledge about 'the world', but focusses instead on the motivations, desires and intentions guiding the processing and organization of this assumed 'knowledge', the 'terms and conditions' underlying cognitive processes of reality construction (see Chapter 3.1.3). If the focus is on these motivations, desires and intentions constituting the terms and conditions of cognitive processes and the construction of realities, however, the pragmatic notion of overcoming obstacles, solving problems and resolving conflicts as an unchallenged presupposition must also be put into question.

It is in the idea of 'play' that this notion is challenged on its most fundamental level. As this thesis has repeatedly pointed out, players of games willingly and enthusiastically engage in overcoming obstacles, solving problems and resolving conflicts they wouldn't have if they didn't decide to play the game in the first place. This voluntary confrontation with impediments is not accounted for by the idea of 'avoiding unpleasentness'; instead, the motivations, desires and intentions underlying the cognitive constructions of realities may call for these impediments as an opportunity to confront them.

Obstacles, problems and conflicts, from this perspective, are not simply annoyances that limit successful operations, but may even appear as a goal of human constructions of reality themselves (see Chapter 1.2). These efforts of constructing 'viable cognitive realties', therefore, may not simply serve the instrumentalist goal of overcoming obstacles, solving problems and resolving conflicts; rather, the construction of and confrontation with these impediments itself may serve a less pragmatic purpose as opportunities to confront challenges, apply strategies to solve problems and deal with conflicts - opportunities which become obvious in the human desire to 'play' and the persistence of 'games'.

Once this human 'appreciation for impediments' has been observed in the ideas of play and games, it may also change the assumptions on human motivations, desires and intentions on a more fundamental level: cognitive efforts of reality construction may not simply be tools to avoid and eliminate impediments, but an attempt to seek and invent them in the first place.

When in this thesis, a model of 'system experience' as a general human trait has been suggested (see Chapter 3.2), this attempt was also guided by the notion that pleasure and satisfaction may emerge from the mere application of cognitive strategies of problem solving - a satisfaction which arises from the experience of confronting impediments, but is not dependent on the gravity of the problem itself (see Chapter 3.1). Obstacles, problems and conflicts may simply be a necessary and aspired prerequisite for the desire to 'make sense': the construction of values can not be accounted for without the challenges presented by 'obstacles'; without the experience of 'problems', the experience of failure and success in the effort to solve these problems is not possible; and even though 'conflict' is often regarded as a despisable aberrance of human interac-

tion, it is through conflict that individuals relate to each other in a most fundamental way.

It is through the observation of games and play that the anthropological dimension of constructivist theory becomes obvious, and challenges some of its basic assumptions by highlighting the significance of obstacles, problems and conflict not only as a limiting and constituting opposition to cognitive efforts, but as a possible purpose of cognitive constructions in their own right.

4.3 Conclusion

An application of constructivist concepts to the assessment of phenomena of play and games has proved to provide an expansion of the theoretical framework underlying the contemporary game studies discourse, while at the same time challenging basic constructivist assumptions about the motivations, desires and intentions guiding cognitive processes of reality construction, hence making the anthropological dimension of constructivist theory more tangible. An emphasis on the idea of 'play as an experiential category' has enabled a focus on the role of players in the construction of meaning in games by highlighting the interplay between cognitive processes of construction and the nature of games' rules and mechanics, and suggests the expansion of the field of game studies to include those 'games' which do not constitute designated 'game artifacts', but arise from an experience of 'play' in a more general sense. As a contribution to constructivist theory, the 'play experience' has been argued as a challenge to the persistence of instrumentalist notions of reality constructions, and suggested the construction of obstacles, problems and conflict as an equally

or possibly more significant aim of cognitive processes than the construction of means to overcome these impediments.

The notion of a 'play experience', therefore, reflects the two perspectives of this thesis: the assessment of 'play' as a specific, yet fundamental, mode of human experience, and the constructivist-anthropological assessment of 'experiences' through the lens of 'play'. Between these diverging but complementary perspectives, and not unlike the emergence of play as the negotiatory space between opposing demands, the possibility of 'constructivist game studies' unfolds as an approach which enables a synergetic liaison between the contemporary game studies discourse and constructivist conceptions of human experience, a liaison to which this thesis has hopefully contributed some initial considerations.

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"Games with a Purpose": http://www.gwap.com

"Gamesnetwork" (Digital Games Research Association's Discussion List): https://listserv.uta.fi/cgi-bin/wa?A2=GAMESNETWORK;4a31a0d2.1103

"The Gamification Whitepaper (Gamification 101)": http://www.bunchball.com/gamification/gamification101.pdf

"Tiltfactor Lab": http://www.tiltfactor.org

U.S. Department of Defense: Report on the "Strategic Defense Initiative":http://www.dod.mil/pubs/foi/reading_room/179.pdf

"Warcraft Realms"(Game Server Statistics):
http://www.warcraftrealms.com/eu_realmstats.php

5.3 Images

Image 1: Map of the Willamette Shopping Mall (Dead Rising, Capcom, 2006)
source: http_i65.photobucket.com_albums_h203_soadrock2_map

5.4 Music, Film and Television

Alien (Brandywine/20th Century Fox, 1979)

C.S.I.: Crime Scene Investigation (Television Series; CBS, 2000-)

C.S.I.: Miami (Television Series; CBS, 2002-)

C.S.I.: NY (Television Series; CBS, 2004-)

Dawn of the Dead (Laurel Group, 1978)

Enemy of the State (Touchstone Pictures, 1998)

Flip (The Flip Wilson Show, NBC, 1970-74)

Fifty Ways to Leave your Lover (Paul Simon/Columbia Records, 1975)

Fringe (Television Series; Bad Robot/Warner Bros. Television 2008)

Independence Day (20th Century Fox, 1996)

I, Robot (20th Century Fox, 2004)

Jacob's Ladder (Carolco Pictures, 1990)

Land of the Dead (Universal Pictures, 2005)

May Be A Price To Pay (The Alan Parsons Project/Arista Records, 1980)

Movie (World Circle Foundation / Kaval Film, 2007)

My Fair Lady (A.J. Lerner; Frederick Loewe/Sony BMG Music Entertainment, 1964)

Nightmare on Elm Street (New Line Cinema, 1984)

Night of the Living Dead (Laurel Group, 1968)

Porgy and Bess (George Gershwin; Ira Gershwin; E. DuBose Heyward/Theatre Guild New York, 1935)

Rear Window (Paramount Pictures, 1954)

The Faculty (Los Hooligans Productions, 1998)

The Sum of All Fears (Paramount Pictures, 2002)

The Texas Chainsaw Massacre (New Line Cinema, 2003)

Twin Peaks (Lynch/Frost Productions, 1990/91)

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Alone in the Dark 1-3 (Infogrames, 1992-94)

Alone in the Dark: The New Nightmare (Darkworks, 2001)

Dead Rising (Capcom, 2006)

Everquest 2 (Sony Online Entertainment, 2004)

Left 4 Dead (Valve Corporation, 2008)

Profit Seed (Tiltfactor, 2009)

Resident Evil 1-3 (Capcom, 1996-99),

Resident Evil: Code Veronica (Capcom, 2000)

Resident Evil Zero (Capcom, 2002),

Resident Evil Outbreak, Files 1&2 (Capcom, 2003-04)

Resident Evil 4 (Capcom, 2005)

Silent Hill 1-4 (Konami, 1999-2004)

Sim City (Maxis, 1989)

ObsCure (Hydravision Entertainment, 2004)

World of Warcraft (Blizzard Entertainment, 2004)

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"/say Thanks!
/camp desktop"

Abstract English

"The Play Experience - A Constructivist Anthropology on Computer Games" is guided by two different, but complementary perspectives: on the one hand, the project's intention is to show that constructivist theory - and especially radical constructivism - can provide a useful framework for the assessment of play and games, and enable a beneficial expansion of the theoretical framework underlying the contemporary field of '(computer) game studies'.
On the other hand, the project aims at an expansion of constructivist theory itself by using phenomena of play and games as an opportunity to challenge and re-assess basic constructivist assumptions.

In order to achieve the application of this dual perspective, the project's focus is on the notion of 'play as an experiential category' and on the examination of the resulting 'Play Experience'. This focus is made tangible by the project's research question: 'Why do people play games?`, one of the larger questions in the game studies discourse.

The first part of the thesis addresses the theoretical and methodical preconditions of assessing play and games from a constructivist perspective. Basic (radical) constructivist concepts are related to the assessment of play and games; the relation of games and the idea of 'reality' is discussed by examining the possible transitions between the game rules' specifications and these rules' significance as guiding factors for players' desires and interactions; definitions of 'play' are examined by showing the dominance of delineating conceptions of play in the game studies discourse, and suggesting an alternative definition of 'play as an intermediating force', which is argued as more viable in regard to various issues of the field; an attempt

is made to render the contingency spaces of experience opened up by digital games accessible for methodic analysis by suggesting a method which accounts for the multitude of possible player experiences, while still tracing the emergence of these experiences back to the terms and conditions presented by the game.

The second part of the thesis shifts the focus on mediated experiences and the role digital games can play in the process of conctructing these experiences. Based on the distinction between first and second order realities, three case studies examine the significance of the 'experiential perspective' taken on mediated events, the 'experiential set up' of fictional topoi, and the strategies employed in digital games to suggest or neglect the emergence of specific experiences by modelling an 'experiential set up' through their own means.

After the basic concepts of 'play' and 'experience' are clarified from a constructivist perspective, the third part of the thesis addresses the research question 'why do people play games?' by examining the 'play experience' more closely. It is argued how play experiences seem desirable due to their inherent features rather than the expectation of beneficial effects. The idea of 'fun' as a motivation for playing games is given up in favor of the notion of 'satisfaction', a notion which is argued to be related to constructivist considerations. Based on this notion, a constructivist-anthropological model of human experience is suggested, which emphasizes the idea of cognitive organization in systemic terms. This model of 'System Experience' is discussed in detail, and gives rise to the idea of play as the pleasurable and satisfying experience of discrete systems, which provides a viable answer to the research question.

Nikolaus König

Curriculum Vitae (English)

Spring 2010	visiting scholar, Singapore-MIT GAMBIT Game Lab, Comparative Media Studies Programme, Massachusetts Institute of Technology
2007-2010	fellow at the Initiative college: "Senses, Technology, Mise-en-scene: Media and Perception", University of Vienna
since Jan 2007	doctoral Student, University of Vienna
1996-2005	Master Studies (University of Vienna): Journalism and Communication Sciences Master Thesis: "On the relation of audio-visual means of television production and the constitution of societies, exemplified by TV judge shows"
2003/04	Tutor of Prof.Dr. Norval Baitello (Sao Paulo), Institute for Journalism and Communication Sciences, University of Vienna
1999	International Studies Program: "Media and Minorities in Multicultural Societies - Training in Multicultural Journalism" (University of Vienna / Pontificia Universidade Catolica de Sao Paulo)

Abstract Deutsch

"The Play Experience - A Constructivist Anthropology on Computer Games" folgt zwei unterschiedlichen, sich ergänzenden, Perspektiven: zum Einen ist es Ziel des Projekts zu zeigen, dass konstruktivistische Theorie - insbesondere der Radikale Konstruktivismus - einen nützlichen Rahmen für die Untersuchung von Spielphänomenen darstellt, und damit eine sinnvolle Erweiterung des theoretischen Fundaments des Forschungsfelds der '(Computer) Game Studies' ermöglicht.
Zum Anderen zielt das Projekt auf eine Erweiterung konstruktivistischer Theorie selbst ab, indem es Spielphänomene als Anlass nimmt, konstruktivistische Grundannahmen herauszufordern und neu zu bewerten.

Um dieser zweifachen Perspektive gerecht zu werden, konzentriert sich das Projekt auf die Idee von 'Spiel als Erfahrungskategorie' und die Untersuchung der daraus folgenden 'Play Experience'. Dieser Fokus wird durch die Forschungsfrage des Projekts: 'warum spielen Menschen Spiele?' zugänglich gamecht, eine der übergeordneten Fragen des 'Game Studies' - Diskurses.

Der erste Teil der Arbeit beleuchtet die theoretischen und methodischen Voraussetzung einer konstruktivistischen Untersuchung von 'Spiel' und 'Spielen'. Grundlegende (Radikal-)Konstruktivistische Konzepte werden in Beziehung mit der Untersuchung von 'Spiel' gebracht; die Beziehung zwischen Spielen und der Idee der 'Realität' wird diskutiert, indem die möglichen Übergänge zwischen den Spezifikationen der Spielregeln und der Bedeutung dieser Regeln als leitende Faktoren für die SpielerInnenbedürfnisse und Interaktionen beleuchtet werden; eine Untersuchung von Spieldefinitionen zeigt das Vorherrschen eines abgrenzenden Spielbegriffs im 'Game Studies' Diskurs, eine Definition von 'Spiel als vermittelnde

Größe' wird diskutiert und am Beispiel verschiedener Themen des Forschungsfeld als viablere Alternative vorgschlagen; es wird versucht, die durch digitale Spiele eröffneten Kontingenzfelder von Erfahrungen der methodischen Analyse zugänglich zu machen, indem die eine Methode vorgeschlagen wird, die die Vielfalt möglicher Spielerfahrungen berücksichtigt, und gleichzeitig das Entstehen dieser Erfahrungen zu den Bedingungen des Spiels zurückverfolgen lässt.

Der zweite Teil der Arbeit richtet das Augenmerk auf mediale Erfahrungen und die Rolle, die digitale Spiele im Prozess der Konstruktion dieser Erfahrungen einnehmen können. Ausgehend von der Unterscheidung in Wirklichkeiten erster und zweiter Ordnung beleuchten drei Fallstudien die Bedeutung des Einnehmens von 'experiential perspectives' hinsichtlich medialer Ereignisse, das 'experiential set up' fiktionaler topoi und die Strategien, durch die digitale Spiele das Entstehen spezifischer Erfahrungen nahelegen oder Unwahrscheinlich machen können, indem sie ein 'experiential set up' mit ihren eigenen Mitteln modellieren.

Nachdem die Grundkonzepte 'Spiel' und 'Erfahrung' aus konstruktivistischer Sicht abgeklärt wurden, widmet sich der dritte Teil der Arbeit einer näheren Untersuchung der Forschungsfrage 'Warum spielen Menschen Spiele?', indem die 'Play Experience' genauer beleuchtet wird. Es wird argumentiert, dass Spielerfahrungen nicht aufgrund erwarteter positiver Effekte wünschenswert scheinen, sondern aufgrund ihrer inhärenten Merkmale. Die Idee von 'fun' als Motivation für Spiel wird zugunsten des Konzepts von 'satisfaction'aufgegeben, eines Konzepts, das in Beziehung zu konstruktivistischen Überlegungen gestellt wird. Basierend auf diesem Konzept wird ein konstruktivistisch-anthropologisches Modell menschlicher Erfahrung vorgeschlagen, das die Idee kognitiver Organisation in Systembegriffen hervorhebt. Dieses Modell von 'System Experience' ('Systemerfahrung') wird detailliert vorgestellt, und führt zu der Idee von Spiel als die lustvolle und befriedigende Erfahrung abgegrenzter Systeme, eine Idee dieeine viable Beantwortung der Fortschungsfrage darstellt.

Nikolaus König

Curriculum Vitae Deutsch

Frühjahr 2010	Visiting Scholar, Singapore-MIT GAMBIT Game Lab, Comparative Media Studies Programme, Massachusetts Institute of Technology
2007-2010	Fellow des Initiativkollegs: "Sinne-Technik-Inszenierung: Medien und Wahrnehmung" der Universität Wien
seit Jan 2007	Doktoratsstudium, Universität Wien
1996-2005	Diplomstudium der Publizistik- und Kommunikationswissenschaft, Universität Wien Diplomarbeitsthema: "Gesellschaftskonstitution und audio-visuelle Inszenierungsmittel am Beispiel von Richtertalks ('Gerichtsshows')"
2003/04	Tutor von Prof.Dr. Norval Baitello (Sao Paulo), Institut für Publizistik- und Kommunikationswissenschaft der Universität Wien
1999	Internationales Studienprogramm: "Media and Minorities in Multicultural Societies - Training in Multicultural Journalism" (University of Vienna / Pontificia Universidade Catolica de Sao Paulo)