Constructive Play
Game Theory
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Mads Kjærulf Caspersen (macae06@itu.dk)
Kristian Helle Jespersen (megalomania@itu.dk)
Christoffer Holmgård Pedersen (holmgard@itu.dk)

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1 Introduction

It's Counter-Strike; as always. The map is cs_mansion. I'm standing at the top of the left-most stairs, seen from the perspective of the main door. The rest of my team lies outside riddled with bullet-holes, without getting a single frag, much less saving any hostages. What n00bs. I broke off at the beginning of the round, painstakingly sneaking through the underground tunnel, making it out the back door and up the ladder without being discovered. Now I'm at the stairs, looking at the backs of three terrorists camping out, waiting for me, but not covering their backs. More n00bs. Instantly I holster my Steyr-AUG and ready my knife. No reason to kill n00bs too easily. Smirking broadly, I plunge down the stairs, wildly slashing razor-thin slits in the cordite-laden air, the knife singing of imminent death. This might be a kill to remember.

A subfield of the emerging tradition of computer game theory is the study of players. This subject is of great importance to computer game academia as well as the computer game industry, however, the field is as of yet only beginning to receive due attention from the academic community. An solid understanding of how and why players act within computer games, can yield valuable information on how games are perceived and used by gamers, how gamers are influenced by games:

This synopsis focuses on a particular part of player/game interaction, namely the tension between the formal rules inherent in computer games and the actual actions that players perform within these simulations. Many anecdotes suggest that players sometimes act in ways that seem irrational when examining the formal rules of any given game. The anecdote above provides such an example. Recent work on player behaviour founded on classical game theory [not to be confused with computer game theory] and economics (Smith, 2006) concludes that players of multiplayer computer games mostly act in accordance with the formal rules of games and that the perspective of the Rational Player Model can be used to understand most gaming behaviour. There are, however, exceptions.

1.1 Statement of research question

Through this synopsis we take on the task of trying to draw a sketch of a theoretical framework, that can be used to analyze these instances of seemingly irrational player behaviour, understand the players' motivations and the importance of these actions. Firstly, based on the psychological concept of flow we present a particular perspective on how players pursue the intangible experience of 'fun' in computer games. Secondly, with reference to the work of Jonas Heide Smith (2006), we present two seemingly incompatible models of players: The Rational Player Model and The Active Player Model. We relate these to Smith's concepts of the Game- and Gaming-circles, and argue that these can be used to

create a coherent, graded scale for the description of players' actions at a moment to moment level of observation.

This scale is used to analyze empirical results and support the proposed theoretical models, giving a new perspective on player motivation.

Thus our research question can be stated as follows: Why and when do players carry out actions that are not rational from the perspective of the Rational Player model. What is the significance of these occurrences?

2 Motivations, Actions and Flow.

To grasp player actions within any game space, we consider it crucial to have a theory of players' motivations for interacting with the game, and with one another in the game. Why are players playing in the first place? This is a difficult question indeed, and while we do not pretend to be able to come even close to answering it exhaustively in this synopsis, we will point to the foundational work of psychologist Mihaly Csikszentmihalyi (1992).

Games in their broadest sense are completely woven into the fabric of our cultures and have complex social connections and meanings (Salen & Zimmerman, 2004). One need just point to the economic and political influence of the Olympic Games for a blatant example of macro level meaning. On the micro level, most people will be able to recount the social importance, of being allowed to participate in the games, played in their childhood schoolyard. Our interest, however, does not lie with the social-instrumental connections of games as motivation for engaging in them; rather, we are interested in the intrinsically motivational aspects of games, that draw people to play them even when little or nothing is at stake. That is, how does playing motivate the player in terms of experience rather than instrumental outcome?

A key notion to understanding the motivation for playing, can be found in Mihaly Csikszentmihalyi's concept of flow. The concept of flow stems from Csikszentmihalyi's research into human enjoyment where his primary interest has been to describe and understand situations where planning and action to a large extent merge, giving the individual a sense of acting effortlessly and intuitively (even though the task in itself actually can be quite complex and strenuous). 'Flow' describes such a state of consciousness which at the same time is an experience and an action. According to Csikszentmihalyi one enters into this state when one is preoccupied with a challenging task (in the broad sense of the concept), which has a level of difficulty that matches one's abilities. As long as this equilibrium is maintained, the individual will be in the flow channel. Figure 1 is a graphical representation of this relationship.

When the person experiences flow, the person's psychological self is momentarily fused with her actions. There is no perceived distinction between what she does and who is who is doing it - self-reflexivity is totally absent and action and

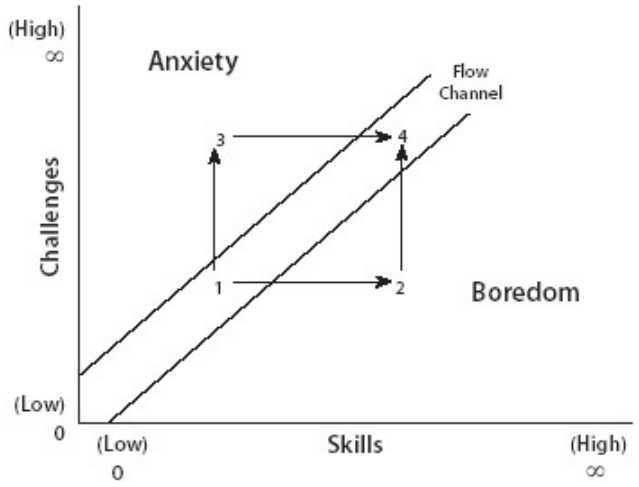

Figure 1: The flow channel.

awareness are merged. There is no me, serving as an evaluation of the I. Once she begins to evaluate the outcomes of her actions the state of flow is ended, but maybe only temporarily, until she delves into the next moment of totally focused activity (Csikszentmihalyi, 1991, pp53-54).

> "*. . . in flow there is no need to reflect, because the action carries us forward as if by magic.*" (ibid. p54)

Thus the individual can go into and out of flow on a moment to moment basis, but since the state is very enjoyable to be in, people will generally try to maintain and amplify it.

Csikszentmihalyi lists a number of requirements for tasks to be flow facilitating. Any flow-facilitating task must to the individual give:

- Clear goals.
- A large degree of control over the task, but not to such a level that success is given beforehand.
- Clear feedback on goal or sub-goal attainment.
- Requirements matching the individual's skill.

In addition to this, the individual must be interested and personally invested in the task at hand. In the context of computer games one could say that the individual must have some degree of presence within the game to attain flow.

Flow is not identical to play, but it can be argued that much play is directed at establishing flow or coming as close to the state as possible (Salen and Zimmerman, 2004, p350), due to what Csikszentmihalyi (1991, p67) calls the autotelic

nature of the flow state - that we need no external enticement for seeking the experience of flow; the experience is intense and enjoyable in itself. With the list of flow facilitating characteristics above, it becomes clear that games in general, and computer games in particular have a potential for delivering a good frame for a flow experience: Most games are defined either by their major goals or by a range of easily intelligible sub-goals, and that the player has at least some degree of control over what happens in the game is fundamental. Games are, also very good at delivering feedback of whether a goal is attained or not. The question of difficulty and skill, however, is not so straightforward. If we accept that the quest for reaching a flow state is an important experiential reason for playing computer games, the topic of the individual player's difficulty vs. skill ratio becomes pivotal.

Different computer games employ different strategies to ensure that difficulty matches the individual's level of skill. Many single-player computer games are constructed to have different difficulty settings that are set either manually or automatically. Sometimes you choose between Easy, Medium, Hard and I Am Death Incarnate, at other times the game automatically adjusts the number and toughness of enemies. With multi-player games, the problem becomes more complex as the control of difficulty levels lies mainly distributed among the players. Some games automatically add handicaps to the better players through catch-up features (e.g. Mashed), others allow the players to manually define handicaps (e.g. Tekken 5), while some have no formal way of addressing the issue of differences in skill (e.g. Counter-Strike).

Though flow is not necessarily established in each and every session of play, it is plausible that most players will have experienced the flow state in interaction with computer games, and that the memory of this experience serves as a strong motivational factor for future sessions of play. We will argue that not only do players individually seek to attain the flow state while playing - in multiplayer games players have strong social and ludic reasons to ensure that all players come as close as possible to attaining the flow state. If players are not awarded the experience of flow through their play, they will soon divert their interest and spend their sparse leisure time pursuing other tasks. This also means that when no automatic handicapping dynamics exist in the formal structure of the ludic system, players should be prone to adjusting the system outside the formal rules,pay in an effort to optimize the level of flow for all participating players. This will be explained in further detail in section 6.1. If any one player is not rewarded for her participation in the game, she will probably exit it and potentially break the game. If she breaks the game, she breaks the other players' possibility for attaining flow, robbing them of the pleasurable experience they seek. This is not a position that is socially desirable to hold, nor is it a position that it is socially acceptable to force others into.

This hypothesis presents a strong challenge to a common folk-theoretical notion of player motivation: that players play to win, which is also the premise for

Jonas Heide Smith's dissertation. We do not propose that establishing flow for all players is necessarily the deciding factor for all sessions of play; as noted above people play games for complex and interacting reasons, but we do propose that in multiplayer games, players should at times be seen to adjust their behaviour in ways that are more meaningful from the perspective of players seeking flow, than from the perspective of players simply seeking to win.

However, before we can make such an argument, we need to explicate our perspective on players and define for what kinds of gaming situations we expect this hypothesis of player motivation and action to be valid.

3 Going in circles

In this section three concepts will be treated, which will finally lead to an understanding of this paper's definition of game framing permeability, i.e. how a player plays a game and how rationality and flow, as described in section 6.4, can be understood in both a pure gaming situation as well as in a social situation. First the lusory attitude will be explained with reference to Bernard Suits Grasshopper: Games, Life and Utopia. Then a discussion on how the lusory attitude is adopted in the Magic Circle, and how Heide Smith talks about a split of the Magic Circle into a Game Circle and a Gaming Circle. Finally a short introduction on how this papers deals with this differentiated circle.

3.1 The Lusory Attitude

Suits definition of playing games is summarized as:

> "*The voluntary attempt to overcome unnecessary obstacles*"

Figure 2: Unecessary obstacles

This means, that when playing a game the participants must voluntarily accept a problem which should be solved i.e. when just standing on a football field, it is not necessary to score a goal, but in order to play a game of football the necessity of scoring is accepted. Suit talks about two aspects of goals within

games; the first is the "pre-lusory goal" which defines the finite states in which the game is won, e.g. a game of chess, where the king has been beaten, or crossing the finish line in a 100m race. This definition is not taking under consideration how or why the pre-lusory state has come to be. The second is the "lusory goal" which could be described as the more intellectual concept of simply winning. The "lusory goal" implies the struggle that is the game, whereas the "pre-lusory" is simply the desired state with no thought of the previous state. But when looking at these notions, it is clear that both of these goals could easily be accomplished by reaching the goal state in a way not prescribed by the rules of the game, e.g. just picking up the king of your opponent whenever a game of chess begins. In a game of golf, one would simply pick up the golf ball, walk to the hole, and put the ball in the hole - Repeat 18 times. Or as Suits discusses:

> "*Suppose I make it my purpose to get a round object into a hole in the ground as efficiently as possible. Placing it in the hole with my hand would be a natural means to adopt. But surely I would not take a stick with a piece of metal on one end of it, walk three or four hundred yards away from the hole, and then attempt to propel the ball into the hole with the stick.*"

This is where the definition used in the beginning of this section comes into play, since it discusses the acceptance of unnecessary obstacles i.e. actually following the rules of chess. He dubs this acceptance "The lusory attitude". This concept of participant acceptance is used in the description of the magic circle in the book Homo Ludens page 10 by Johan Huizinga.

3.2 Magic Circle

> "*All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course... The Arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds, i.e., forbidden spots, isolated, hedged around, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart.*"

This quote from Homo Ludens talks about disbanding the notion of "reality" and to enter a space of formalized rules where common logics do not apply. Objects or actions that beforehand had no specific value are now valuable in their own right. A child trying to catch a ball only to drop it, has no value until this action takes place within a game of dodgeball where this action would mean the "death" of the child, and otherwise meaningless plastic token in a boardgame can become a personification of the player himself. A main focus of this paper

is to investigate the permeability of the magic circle, how the boundary can be interdependent on the perception of the individual players, and how this magic circle can be differentiated further. A step in this direction has been taken has been taken by Heide Smith by talking about a game and a gaming circle within the magic circle, so this theory will be introduced in the following section.

3.3 Game and Gaming Circle

Heide Smith presents the notion, that the magic circle is in fact split into two separate entities; the game circle and the gaming circle, where the idea of diving into an "enchanted space" with a mental boundary between game and reality is challenged.

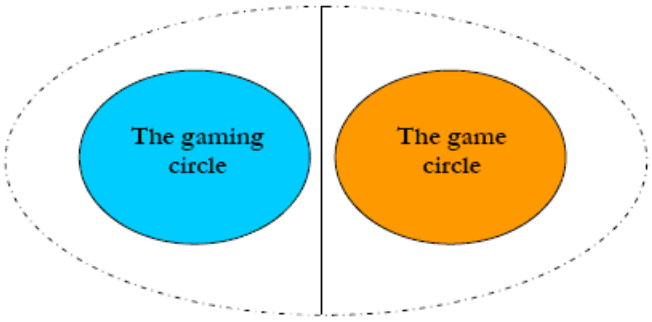

Figure 3: The game and gaming circle.

In this setup, games are thought of as truly open systems, in which the surroundings have an effect on the way the player acts within the game circle. An example could be giving advice to another person who is actually your opponent within the game. Even though you try to win the game, you want to do it on fair terms, which means, if one player have superior skills, she would actively try to influence the game circle by giving advice as mentioned in the above. Furthermore it could be argued that the action of helping your opponent actually is done to show superiority and give a good impression of one self. This paper will try to investigate even more on the interrelations between these circles. Furthermore a change in the graphical representation will be presented to aid in explaining how the gaming circle actually intervenes directly with the game circle. See section 6.1.

4 Rational Player Model

The theory of the rational player, is shortly put, the theory that a player accepts the rules and goals of a game when he commences play. And that he will try to employ the best possible strategy within the game in order to achieve its goal.

For example a Tetris player accepts that he is supposed to place the blocks in a fashion that will optimize his score. He could place the blocks in order to build a castle instead, but since the game punish this sort of behaviour he stop playing. In this chapter we'll summarize the aspects of the Rational Player Model as it is presented by (Smith, 2006). This is mainly done through examples to ease understanding and show how theory, modelling player behaviour, works when applied.

4.1 Rational Agent Model

There is an economic theory that explains this sort of behaviour. This is known as *The Rational Agent Model*, in this the agent is assumed to always maximize his utility[1], it does not assume what preference the agent might have, but notes that such preferences can be revealed through observation, and then expressed in a utility function[2].

Example 4.1 (Rational Agent - Tekken 5) *If we confront a Tekken player with the following options:*

(A) Defeating his opponent.

(B) Kicking to the rhythm of the music.

(C) Jumping to the rhythm of the music.

We can observe that he prefers (A). If we take option (A) away from him we note that he prefers (B) to (C). We can now construct a utility function to these preferences with the followig values: (A) = 3, (B) = 2 and (C) = 1. This is reflexive: $(A) > (B) \Rightarrow (B) \not> (A)$*, transitive* $(A) > (B) \wedge (B) > (C) \Rightarrow (A) > (C)$ *and complete which means that all preferences are comparable.*

Smith's rational player model is based on the *The Rational Agent Model*, however, it differs in a very crucial point, he assumes that the agent always prefers to win the game as opposed to observing what the agent prefers, this means that the strategy with the highest utility, is the strategy that optimizes towards the game's goals. In the rest of this section we will make the same assumption.

4.2 Conflict

All games involves one or more types of conflict. This can be a conflict beween the player and the rules, the player and the computer controlled agents in the game or the player and other players. The classical game theory offers a mathematical

[1]The utility is the value of the outcome between different choices

[2]This is a relation that sorts the preferences in a manner that is reflexive, transitive and complete

model that explains how players will try to optimize their strategy in order to maximize their outcome. This is model will be explained in the following example.

Example 4.2 (Prisoners Dilemma) *Two persons (in this case John & Åge) have been pulled over in their car with an unregistrered firearm in their posession. They are charged with a recently commited armed robbery. They are placed in separate cells for questioning and have the following strategies. They can either remain silent (cooperate) or confess (defect) and are informed of the outcome of each strategy. The outcome can be seen below.*

		Aage	
		Cooperative	*Defect*
John	*Cooperative*	*John: 1 year* *Aage: 1 year*	*John: 3 year* *Aage: 0 year*
	Defect	*John: 0 year* *Aage: 3 year*	*John: 2 year* *Aage: 2 year*

The dilemma of this example is that no matter what strategy John chooses to follow, Aage should always choose to defect in order to optimize his own outcome and vice versa for John. So John & Aage will always end in a scenario were both players confess even though the strategy where they both remain silent is preferable.

The Prisoners Dilemma explains how it is possible to analyse and calculate the outcome of a given conflict, also known as an equilibrium, under the assumption that the players always will try to optimize their own outcome and win the game. It is of course possible that the outcome would have been different if John & Aage had been allowed to communicate before they where questioned, however, they have no reason to trust the other person (Smith, p121-123, 2006).

Selecting a strategy does not always ensure a certain outcome. But if we know the odds of succes or failure, we can multiply this with the utility of an outcome to get the expected payoff, which is the real utility value of the outcome.

Example 4.3 *John & Aage are playing Counter-Strike, and meets each other on the battlefield. The strategies of each player is to use either their AK-47 or their knife to kill the other player. A victory is worth 10 and a loss is worth 0. If we assume that John & Aage are of equal skill, the odds are 50% to win, if they both choose knife or AK-47 and a 90% chance to win using the AK-47 versus a knife. The payoff matrix then becomes:*

		Aage	
		AK-47	*Knife*
John	*AK-47*	*John: 5* *Aage: 5*	*John: 9* *Aage: 1*
	Knife	*John: 1* *Aage: 9*	*John: 5* *Aage: 5*

We can see that using the AK-47 is always a superior strategy to using the knife.

In the above example the AK-47 is said to be a *dominant* strategy, while the knife strategy is *dominated* and should never be used.

An important aspect of analysing games in this way, is to identify if the game is cooperative, semi-cooperative or competative as this has great impact on the payoff matrix for the game.

Cooperate games favors teamwork, Players shares the scores and goals in these games. The game rewards them for cooperating and punishes them for defecting. Examples of such games are: Playing on the same team in Fifa '07, Virtua Cop and the board game Arkham Horror.

Semi-cooperate games are in the grey area between cooperative and competative games. They reward cooperation, and goals of the game can often only be accomplished by helping each other. However the games also rewards defect behaviour in the form of individual rewards. Such a game can be more or less cooperate, based on how much the game rewards defection. Examples of such games are: Diablo II, Bubble Bobble and Counter-Strike (on the same team).

Competative games tend to give the players mutual exclusive goals. You can only win the game by making the other player(s) loose. So the game only rewards defecting strategies. Examples of such games are: Chess, Tekken 5 and Age of Empires (deathmatch).

4.3 Information

Up until now we have only looked on a very simple model, where the players only had two available strategies. But in real games, this is very rarely the fact. Usually a player has a lot more choices available to him, e.g. in Tekken 5 each character has approximately 100 moves he can perform at any given time and these can be combined into combos leaving the player with millions of viable strategies. Thus information about the game state becomes critical in order to optimize your strategy.

Jonas Heide Smith speaks of two types of information.

Complete information is when all players know everything about the game structure. This includes everybodys goals, layout of the gamespace, type of position of the units, etc. All players know all information about the game before it starts.

Perfect information is when all players know everything about the history of the game state. This means that all changes in the game state must be observable by all players. All players know the history of the game.

For example chess is a game of complete information, since both players can see the entire board, know how all the pieces move and is aware of ones and ones opponents objective - to capture the king. Texas Hold 'Em Poker on the other hand is a game of incomplete information, since you don't know what cards your opponents are holding. Both games do however have perfect information.

A game like Warcraft III has complete but imperfect information, since all players knows what map they are playing on and the position and race of their opponent. Once the game starts they loose a lot of information, since the fog of war hides it. Age of Empires II on the other hand has incomplete information, since the maps for the multiplayer part are randomly generated.

Even though the amount of possible strategies for a specific game, can seem endless, they are in fact finite, as long as the game has a winning condition and thus ends. As such, it is possible to calculate a payoff matrix for a given game, at least from a theoretical point of view. In reality the amount of strategies available are further limited by the skills of the player - a Tekken 5 player may not know all moves of a given character. And also many strategies are so similar they can be grouped into categories of strategies - A player in Tekken 5 does not discern between the game state of being 244 pixels away from his opponent or 245 pixels away from his opponent.

So even though there is a huge amount of game states, that in theory all should be analyzed before a player chooses a strategy, many games tend to fall into a equilibrium. One type of equilibriums of importance are the Nash Equilibria. These are saddle points of the payoff matrix, where neither player can gain anything from changing strategy.

Example 4.4 (Nash Equlibria) *Assume that John & Aage is playing a game with the following payoff matrix.*

Aage

John		*Strategy 1*	*Strategy 2*	*Strategy 3*
	Strategy A	*John: 1* *Aage: 3*	*John: 0* *Aage: 0*	*John: 0* *Aage: 0*
	Strategy B	*John: 0* *Aage: 0*	*John: 2* *Aage: 2*	*John: 0* *Aage: 0*
	Strategy C	*John: 0* *Aage: 0*	*John: 0* *Aage: 0*	*John: 3* *Aage: 1*

This game then has 3 Nash Equilibria, all placed on the diagonal of the matrix. Once they end in these strategies there are no reason for them to change strategy, since they can not gain anything from it, unless their opponent also changes strategy.

Another type of equilibrium, is the Mixed Strategy Equilibria which is of great interest to game designers, as it gives an opportunity to balance a game without

giving the players symmetric choices. It is probably best known in the following form.

Example 4.5 (Rock Scissor Paper) *Our Players John & Aage are at it again. This time, they are playing Rock, Scissor and Paper. With the following payoff matrix:*

		Aage		
		Rock	*Scissor*	*Paper*
John	*Rock*	*John: 0* *Aage: 0*	*John: 1* *Aage: -1*	*John: -1* *Aage: 1*
	Scissor	*John: -1* *Aage: 1*	*John: 0* *Aage: 0*	*John: 1* *Aage: -1*
	Paper	*John: 1* *Aage: -1*	*John: -1* *Aage: 1*	*John: 0* *Aage: 0*

Since John doesn't know what Aages strategy is, he can just choose randomly between his own strategies, and hope for best. If Aage however keeps using the same strategy, John will be able to select the strategy which yields him the best results. So in order to maximize his outcome, Aage is forced to randomize between his strategies, if he wants to have a chance of winning the game. The fact that the best strategy is to keep changing strategy, is called a mixed strategy equlibria.

As this short summary shows the Rational Player Model is a very useful tool for analyzing player behaviour. It's primary strength is that it is based on a mathematical model an thus is able to predict player behaviour and able to falsify itself. It can however be difficult to analyse all the available strategies a player has. Mainly because of the sheer number of strategies available but also because it is difficult to know how much information a given player has of the game structure and state. It also suffers from its basic assumption that players always optimize their strategies in order to win the game. This is not always the case as subsequent sections will show.

5 The Active Player Model

In Plans and Purposes by Jonas Heide Smith (2006), it is proposed that a player-model, which differs from the Rational Player Model, exists. Heide Smith gives this brief explanation of what the, so called, Active Player Model entails:

> "*The player is seen as actively engaged with the game or gamespace in ways not often prescribed or predicted by the game designers*" (p.24)

In this paper, the interrelations between the Rational and the Active Player Models will be investigated, but this section primarily deals with the descriptions given by Heide Smith.

The understanding of the player/user as a possible "non-compliant entity", which interprets or interacts with a given media in an unpredictable manner, is rooted in a change in the literary theory of the 1980's. The idea that signs and texts required an active interpretation from the view of the user, and could not be predetermined by the intentions of the creator, gave rise to the notion, that the role of the reader was a non-trivial one. This theory of reader emancipation was backed up by empirical studies.

> "*...from empirical studies of actual "readings" of news programs, soap operas etc. came the observation that people in fact did often produce readings (or "uses" of media texts) that where unexpected, aberrant, oppositional or directly subversive when compared with the presumed indented reading*" (p.30)

With regards to active players in computer game theory, the emphasis of the dissertation by Heide Smith is on how complex social structures emerge from popular games, and how these games mediate poplar culture and social interaction. He furthermore briefly dives into the way the users change the predefined rules of a given game by modding and cheating. With direct reference to the literary theory he quotes Lis Faurholt and Carsten Jessen in saying that the expected behaviour of the player in a violent FPS is supplemented by the fact that:

> "*...the children's way of being together is not characterized by violence or conflict, quite the contrary. They cooperate exemplarily and help each other to a large degree.*" (p.32)

Even though this paper draws inspiration from the dissertation by Heide Smith, and adopts the notion of an Active Player Model, the main focus will be more on immediate non-rational player actions within the game and gaming circle, than on player creation of mods and social structures. This section has not dealt with this constructive play-focused model which will be used throughout the paper, but exists to create an understanding of the non-compliant player.

6 Divergence from the RPM

In the earlier sections on the gaming circle and the game circle, we saw how within the magic circle one can meaningfully discern between the actual game space and the larger social setting in which it is inscribed. We where also presented with two oppositional models of player behaviour, that argued that players conform to the rules of the game, because they want to win and that player behaviour is quite unpredictable due to the complex interaction between the ludic structure and the active agent(s) in it.

In this section the interaction between the game and the gaming circle is treated in detail. This leads up to the formulation of the constructive-compliant

scale for play assessment. Furthermore, the idea of players being motivated towards attaining and preserving flow is used to argue that divergence from the rational player model can in fact be seen as rational action towards maintaining the magic circle of the game.

6.1 Gaming circles revisited

Since the gaming circle is the special delimited reality which is created when players enter a game, it follows that the gaming circle is a direct product of the player's lusory attitude. However, since lusory attitudes are individual, they are not necessarily identical among the players of a game - in fact they are probably not. This raises a problem: How come that the typical result of playing a multiplayer game of Tekken 5 is mutual enjoyment and not endless bickering over the purpose of the game ending with DualShock controllers flying across the living room? The answer is of course, that the players' lusory attitudes and thus their construction of their individual gaming circles are defined by the interaction of the 1) game circle, 2) the players' seeking flow and 3) general social norms of behaviour. This seems so obvious that it is hardly worth academic interest, but then consider: What happens when a two players at a LAN-party decide that using the sniper rifles in Counter-Strike is considered off limits?

Example 6.1 (Two equally skilled players) *For the sake of simplicity let us consider John and Aage playing a game of Counter-Strike 1 on 1. They play together often and they are at approximately the same level of skill. The game is running with no special modifications and thus there is nothing in the game circle of Counter-Strike that forbids the use of sniper rifles. In fact, depending on the map in question, equipping a powerful sniper rifle and progressing carefully through the level might be a very wise strategy for winning. But John and Aage agree that they will not buy or equip sniper rifles in this session of play, since they think it 'spoils the game' and an ad-hoc rule forbidding sniper rifles is added the game.*

Should this rule now be considered a part of the game circle? The rule in not inscribed in the formal structure of the game as such - both John and Aage can break it at will, and the game might continue nonetheless. But since it has consequences for how John and Aage operate within the game circle, it cannot only be present in the players' respective gaming circles. The meaningful interpretation of this relationship is that the ad-hoc rule is a consequence of interaction between the two players' gaming circles and the game circle of Counter-Strike. It is an interaction phenomenon on the border of the two. As long as the two gaming circles of the players are in accordance - containing the 'no sniping rule' - the rule is present in the game circle, but it is much more transient than the rules coded into the software of Counter-Strike.

What are then John and Aages motivational reasons for keeping their gaming circles in accordance with one another, not succumbing to the seemingly tempting way of winning the game by sniping? If we employ the perspective that both players are seeking to attain flow and that social norms imply that they should try to facilitate the other player also attaining flow, forbidding the sniper rifle and adhering to this rule becomes a very meaningful option. If killing the other player by sniping is too easy, it prevents flow from being established. By sniping John might win the game, but it will become boring for him and frustrating for Aage. Ultimately he will be responsible for breaking the magic circle. In this example we had two players of equal skill and the main function of their constructive efforts was to adjust the pace and difficulty of the game in a general way affecting both players in the same way. However, adjustments can be made for each player individually for very similar reasons:

Example 6.2 (Two players of different skill) *Let us again consider John and Aage playing Counter-Strike, only this time let us presume that John is much more skilled than Aage is. In spite of their different levels of skill they agree to play, for they are both fond of playing Counter-Strike which in the past has yielded experiences of flow for both of them. Since they know that John is a much more experienced and accomplished player than Aage they make up and agree upon a set of ad-hoc rules: John is only allowed to use the knife and side-arms. Aage is allowed to use whichever weapons he prefers.*

Via this arrangement our two players have arranged their respective gaming circles, at least for the time being, and agreed to transiently interact with the game's circle structure. This advantage of this structure is that it gives both players the possibility to reach a state of flow during gameplay. Both players face levels of difficulty that roughly match their abilities while they navigate in the same game circle. This way both can play to win while still being challenged. Will both players experience flow during this gameplay session? They might, but not necessarily. But chances are greater than if they played by the standard rules programmed into the software.

What John and Aage are doing in both examples is precisely what Salen & Zimmerman point to in Rules of play:

> "*The magic circle can define a powerful space, investing its authority in the actions of players and creating new and complex meanings that are only possible in the space of play. But it is also remarkably fragile, requiring constant maintenance to keep it intact.*" (Salen & Zimmerman, 2004, p98)

They are playing constructively to maintain the magic circle - or in other words: They are using knowledge and intuition from the gaming circle to transiently modify the boundaries of the game circle, allowing for both players to

meaningfully play at their best to win. This demonstrates the value and transformative power of constructive play - it allows for the optimization of the experience of formalized games. However a problem remains. In Example 6.1 and 6.2 the constructive effort of the players in based on planned agreement in advance and their modification of the game structure is in effect for an entire session of play. The question is whether the same form of analysis applies to instances of constructive play that are spontaneous, not agreed upon in advance and even more transient than the ones described above.

The vignette opening this paper describes such an instance of play. Suddenly a player decides that he has the skill and opportunity to act in a way that is less than optimal in relation to maximizing his probability of winning. The player has knowledge about the skills of the other players, some inferred from their actual playing some gained from the social interaction outside the actual game structure. This is used by the player to estimate how much the level of difficulty can be raised by self-imposed limitations - e.g. using the knife instead of a machine gun - while not taking it to the level of frustration. The decision process is probably completed in a non-explicit manner in the split of a second while the player moves toward the enemies. The player intuitively knows how to optimize the experiential potential of the situation (as supported by contemporary cognitive- and neuropsychological research into heuristic decision making (Eysenck & Keane, 2003; Damasio, 1995)). This last example shows that flow-facilitating changes to the rules of the game can be made by one person, on the fly, in a transient manner, without breaking the magic circle - maybe even strengthening it. What is especially noteworthy is that the changes only occur in the intersection of the gaming and game circles of this one person - only in retrospect will the other players in the game be able to see that this one player changed the game for himself for a brief moment.

The three examples are pictured in figure 4 - the top row being metaphors for the situation in which players before the game agree upon modifying the rules. The first field of the bottom row depicts a situation in which no accordance is reached and the players' construction of the rules of the game are too divergent for the game to continue. This could for example be when a cheater or a spoilsport breaks the game or when players disagree on the rules to such an extent that the game cannot continue. The last field depicts a situation where one player suddenly changes the rules that apply to him, but in a way that does not break the game.

All the examples given above are of course examples of special situations in gameplay. Most of the players, and especially players of equal skill, should be expected to play by the standard rules contained in the unmodified game circle - and in accordance with the predictions of the rational player model. However, as the examples above demonstrate, constructive situations can arise when players have the motivation to create them; and from a theoretical perspective the seeking of the flow state should be considered an important motivational factor.

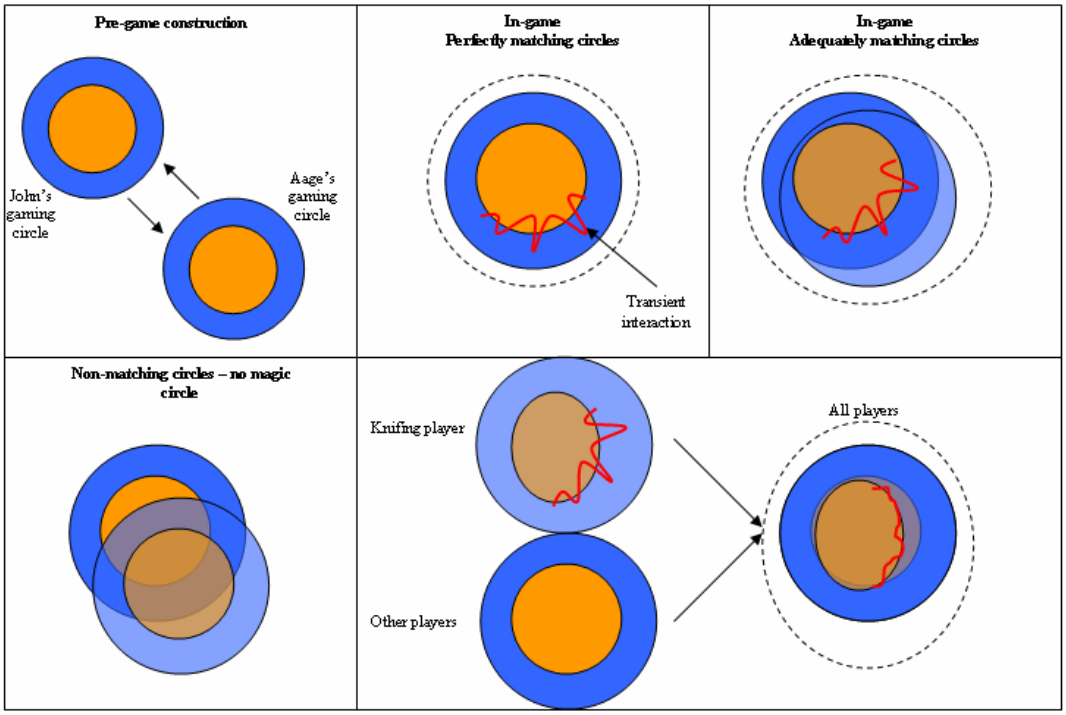

Figure 4: Player interaction described by magic circles.

6.2 The constructive-compliant scale for play-style assessment

The interactional perspective of the three-circle model presented above limits the variation of constructive play to the interval between the breaking point of the magic circle and the total absence of constructive play (i.e. playing totally by the formal rules of the game pursuing the winning conditions of the game). The interactional perspective also implies that the level of constructive play can vary on a moment to moment basis. If we want to understand when and why players engage in constructive play, it is important to be able to trace this variation over time. To this end we propose 'the constructive-compliant scale' for play-style assessment as a tool for mapping individual players' style of play over time. The scale goes from the poles of the intervals described before. If we use this scale to describe the play-style of our knifing Counter-Strike player over e.g. a 2 minute interval, the following figure emerges:

In the beginning of the round (1) the player is complying with the formal objectives of the game cooperating with his team - also taking into account that his team mates are less skilled than him and rely on his team play to have a good play experience. But the team mates are killed quickly, and he adjusts his strategy to accommodate that he is alone (2). Luckily for him, he knows that

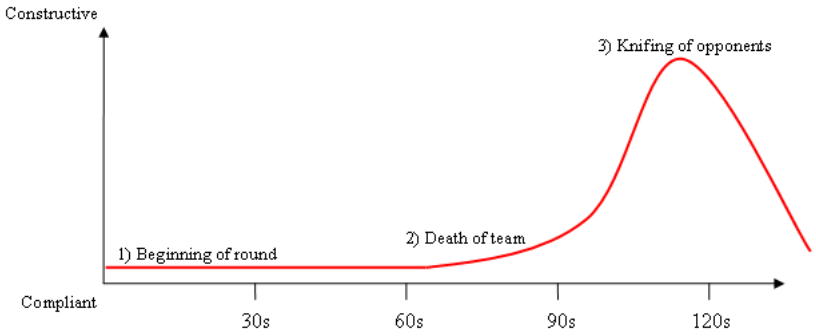

Figure 5: A constructive-compliant depiction of a round of Counter-Strike

the opposing team is composed of players that are significantly below his level of skill. Therefore he uses his superior skill to approach them from an unexpected direction. However, to maintain a challenge in this latter part of the round he constructively adjusts the difficulty level of the task of killing his opponents by choosing the knife as weapon (3); a choice that also has the benefits of positioning him as a creative and skilled player in the social setting shared by the players.

6.3 Divergence from rationality

The mapping of the knifing Counter-Strike player on the constructive-compliant scale shows that our player for a limited amount of times diverges from complying with rationality as it is predefined by the standard game circle offered by the game. This also means that he diverges from the behaviour predicted by the rational player model. But, as the treatment of the role of flow in player motivation above has shown, there are concrete, and to some extent, predictable reasons for him doing so. As such the actions can be considered rational, but only in an analytical scope that is at a higher and less precise level than the one the rational player model operates with. Indeed these instances cannot be captured within the rational player model. An important question is then how often special situations as the one described above arise and how important they are to players' experience of computer games. To come closer to an answer to these questions, we will briefly examine the connections between free play and constructive gaming.

6.4 Free play and constructive gaming

> "*Here, then, we have the first characteristic of play: that it is free, is in fact freedom.*" (Huizinga, 2006, p103)

> "*Play demands order absolute and supreme. The least deviation from it "spoils the game," robs it of its character and makes it worthless.*"

(Huizinga, 2006, p105)

One paradox of the phenomenon of play is that it lives up to both these characteristics captured by Huizinga. Play is freedom. Play is submission to order. Some games give the freedom to participate or not under predefined rules. Others give the freedom to co-construct the rules of the game as you go along. This is a dichotomy that is not entirely captured in the English terms of 'game' and 'play', but rather is captured much better by the Scandinavian terms of 'spil' and 'leg'. 'Spil' is the activity that one performs in a magic circle containing a highly structured game space with clear rules and little flexibility. 'Leg' is what one does in a magic circle that has amorphous contents that is redefined every instant, where rules and meanings shifts through the activity of the 'players' in the circle. 'Spil' and leg are not two absolute categories; rather they are the two poles of a continuum. Figure 6 shows the continuum as drawn by Miguel Sicart (2006) with several games placed upon the axis between the two.

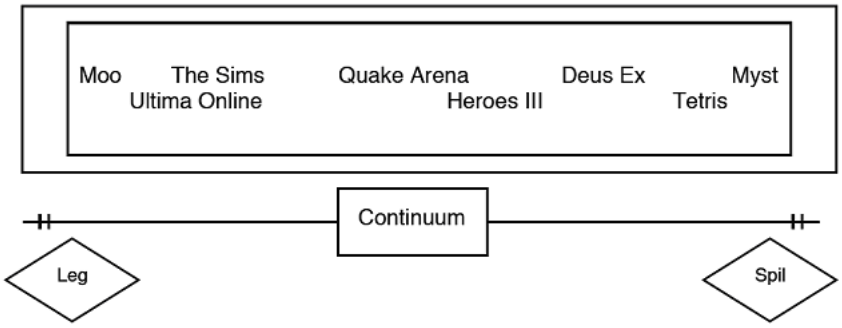

Figure 6: The spil/leg continuum.

As can be seen from the figure, games on the spil side of the continuum generally support compliant play, as deviations from behaviour as predicted by the rational player model generally tend to end the game or break the magic circle: In Myst there is practically no way of playing the game in a way other than intended and in Tetris the game ends fairly quickly if one tries to attain other goals than removing the lines - though this can be done in a variety of ways. Games on the left side of the continuum, on the other hand, generally support constructive play by giving a lot of control to the player, and having a magic circle with a high tolerance to constructive play: Quake Arena features many of the same possibilities for constructive play as where described in the examples from Counter-Strike, and in the The Sims, much of the gameplay is centered around the active player's construction of goals. Also, the figure displays a clear tendency that 'spil' games support flow by a tight integration between control and feedback and difficulty levels following the player's skill level. The player cannot progress before she has built a level of skill matching the difficulty of the games.

Once the player has entered into this balance the games tend to keep the balance by constantly adding to the level of difficulty while the player's skills improve: In Tetris the speed of falling blocks increase as the player progresses through the game. The 'leg' games on the figure generally support flow by letting the player actively seek challenges that match her skill level and in that way control the level of difficulty and the pace with which the difficulty increases: The Sims is a prime example of how, once basic sub-goals are met, the player herself defines goals and how she intends to get closer to the completion of these.

Thus it is possible to draw a connection between the degree to which a game structure supports 'leg' and the possibility of constructive play occurring within the game circle. The more freedom to escape the 'order absolute and supreme', the more room for construction of gaming-game circle interaction effects there is. As we shall see in the next section, the rare instances of play that diverge from run-of-the-mill rational play can be very important to players.

7 Those were the days...

This section will try to describe the ways that non-rational gameplay and play-deviations influence the sensation of fun/flow while playing a game. Some empirical data has been collected to create a foundation for the allegations presented in this section. Furthermore it is within the scope of this section to investigate the memorable events in a game and how this relates to flow. The psychologists Eysenck and Conway (Eysenck and Keane, 2000, pp217-219) argue, with regards to real life situations, that the events which differentiates themselves from the norm is most easily recollected by the human memory-system. The assumption in this paper is that this concept of memorizing real-life events also applies in gaming situations.

Most games, if not all, have an element of repetition in the core gameplay, and it is the mastery of these repetitive elements that identifies the skilled player, e.g. the rapid aim and controlled bursts of fire in Counter-Strike, or the quick overview and decision-making of Bejewelled. Most game theory has the balance between the mastery of repetitive elements, i.e. skills, and the difficulty of the challenges, as being the primary variable for flow. This rather formal concept with the game itself as the primary framing is quite accurate, but it is the purpose of this paper to investigate flow with the framing on the gaming circle as well. When looking at Csikszentmihalyi's model skills and challenges are important in the pursuit of flow. Only when these variables are balanced you achieve the wanted effect, otherwise you are affected by anxiety if the challenges supersedes your skill-level, and boredom if the challenges are too easy. Our data shows this quite clearly, although the quantity is insufficient to state this as a fact (see figure 7). This model is quite focused on how the game itself is designed to balance the gaming experience, but this paper looked at player constructed movement within the

Importance of a win						
	very high	1	0	3	1	0
	high	0	2	1	2	0
	average	0	2	1	1	2
	low	3	2	1	1	2
	very low	2	0	0	0	2
		Much worse	worse	equal	better	much better
		Opponents relative skill level				

Figure 7: Note how a player's focus on winning rises the closer his opponents are to his own skill level.

model, and what is actually worth remembering. The following section is divided into two parts; Enjoyment and Memorability.

7.1 Enjoyment

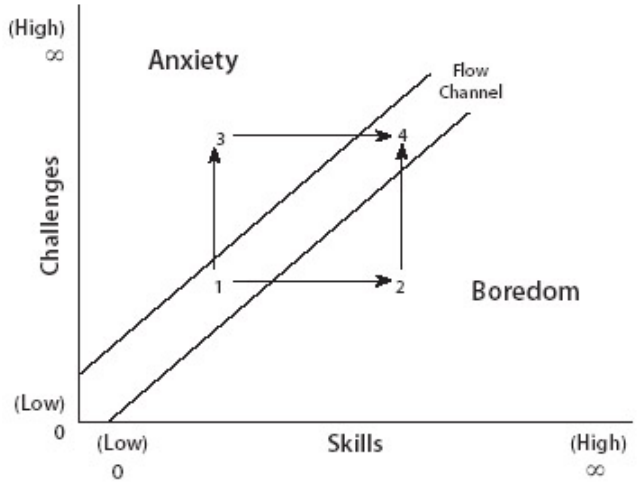

Figure 8: The flow channel.

If one was to accept both the notion of the Rational Player Model as well as Csikszentmihalyi's model, a player would have to fold their hands and pray that their skill was directly proportional to the challenges presented in a given game, since a player at all times would choose the course of action which would lead to the best possible utility value (See section 4.2). Fortunately this may, as mentioned previously in the paper, not be the only cause of action of a player. Using Counter-Strike as the framing for the following, a player can personally increase/decrease the challenge level to reach the flow channel (see figure 8). Our, although limited, empirical data also clearly shows that "being in the zone" is a

valuable addiction to Csikszentmihalyi's model, when thinking about pleasurable play. Lets focus on "being in the zone" before returning to the manual challenge modification.

Being in the zone:

Our questionnaire shows, that a high percentage of the respondents had the most "fun" in Conter-Strike when superseding their actual skill level.

Figure 9: Being in the zone.

Everything the player tried to do worked out, giving a sense of in-game divinity. A respondent says:

> "*Being alone, all my team-mates were wiped out without having killed a single enemy, and I killed the 8 enemies with AWP and Desert Eagle while storming around the map*"

Another says:

> "*We were playing 4 vs. 4 on the mansion level. My entire team had been wiped out, so it was me vs. the entire other team. I only had a gun and knife as weapons. I managed to sneak up on an opponent and kill him with the knife. Then I picked up his gun (the big ass machine gun) and continued to kill the rest of the team*"

Both cases entail overcoming impossible odds, most likely earning the player kudos from her team-mates. The momentarily heightened skill level matches the challenges, but the moment the player feels this, the flow channel is broken. The

notion of "me" appears in the players mind; "I cannot believe I made that shot, it was incredible" (See section 2). This does not mean that Csikszentmihalyi's model is not correct, which it is in the vast majority of cases, just that the truly memorable events often falls out of category.

Modifying the challenge:

By accepting the notion of the Constructive Player Model we empower the player to make conscious choices to move on the Y-Axis of Csikszentmihalyi's model. In Rules of Play, Salen and Zimmerman state:

> "*If a player is feeling boredom, for example, she is not meaningfully exploring the space of possibility of a game*" (p.351)

A respondent of the questionnaires says:

> "*Me and a few of my friends where playing via the net versus a far superior clan, who used advanced tactics and thus kept beating us. After a few rounds with no chance to win, we realized that part of their tactic was to keep a lone sniper at a certain point on the map. So we all armed ourselves with the knife and zerged*[3] *him. We ofcourse still lost, but we got the lone sniper. After a few rounds of using this tactic, the clan-team refused to play us anymore*"

This player talks about being stuck in the state of Anxiety, but achieves a flow-like state by enforcing challenges that differs from the game objectives, i.e. setting the sole goal of killing the lone sniper, which constitutes a reasonable challenge level in accordance to the skill level of the players. Other times superior players enforce handicaps on themselves, e.g. only playing with hand-guns to reach fair-play which then again translates into the flow-like state. When looking at the questionnaires it is clear that knife-kills are quite popular, although this is not a rational tactic, since the chances of the player being killed increases. This is clearly a player controlled change in the challenge level, but this time not to reach a balance between skills and challenges, but simply to humiliate the enemy. A noble quest, but surely not rational.

Memorability

When trying to analyze the findings in the questionnaires, we were surprised to find that a number of the memorable events, that the respondents described, did not fit well with having been flow states or examples of being 'in the zone'. They seemed to take on the form of small narratives featuring the person in one role or another, but not with the merged action and awareness of the flow state or

[3] All players rushing the same target.

the great achievements of 'zone-moments'. The uniting feature of these stories seems to that they are atypical - that is they are unlikely to occur in a normal game session. This leads to a discussion of the reasons behind the remembrance of these events. The psychologist Nelson states:

> "*What I ate for lunch yesterday is today part of my episodic memory, but being unremarkable in any way it will not, I am sure, become part of my autobiographical memory - It has no significance to my life story*" (Eysenck and Keane, 2000, p217)

The preliminary suspicion is, that the individuality of man, is based of the variations of "life stories" i.e. the longer periods of time defined by major ongoing situations (Living with someone, working for a specific firm), the general events (a holiday in a foreign country), and the unique events of a persons life (situations spanning from seconds to hours). We propose that unique events in a gaming situation may hold the potential of defining aspects of your life story, and spcifically your identity as a player, just as a unique event in real life would, no matter if they are flow-moments, zone-moments or simply atypical. This claim is however unsubstantiated and is not covered in the scope of this paper.

8 Conclusion

Games are, as far as we know, as old as human culture itself, and the phenomenon of play is not limited to the human species. People, dogs, cats. They all play. Delving into such a complex area and trying to make substantiated claims about what drives such behaviour is a daunting task and one can only hope to emerge from such a wilderness with a limited, incomplete and biased report. Nonetheless, by considering some of people's motivations for playing, this paper has tried to build a sketch of what guides people in their course through the magic circles they themselves create and how this behaviour can be understood and predicted.

The Rational Player Model, as described by Heide Smith, is a powerful analytical tool for understanding the major part of player behaviour in computer games. This paper has focused on the game situations where the Rational Player Model falls short of accounting for all the details; the exceptions. It has also argued that these exceptions are not trivial deviations from the norm, but can in fact be important and meaningful to the persons who perform and experience them. The theoretical analysis and the small survey point to the possibility and value of constructing a balancing counter-construct, an inverse twin, to the Rational Player Model's Compliant Player. The Constructive Player is an attempt to provide such a coherent picture of the player in these exceptional situations and the Constructive-Compliant Scale of Play Assessment has shown that player's actions can meaningfully be tracked as moving between these two player types depending on the player's abilities and the games configuration; the skill-challenge ratio.

What becomes transparent through the construction of the scale is that the compliant and constructive types of play are not mutually exclusive, though one tends to overshadow the other at any given time. They are in fact complimentary. If we look for a synthesizing principle that can encompass both types play we inevitably end once more posing the question of motivation. Far from being exhaustive, our tentative answer to this is that players seem to seek flow through their play experiences. If they can reach it by compliance they comply. If they cannot, they try to reach it by construction. That both types of play steer toward the same experience can be read as **both of them having the same utility function to the player**. They provide flow. They provide sense of achievement. They provide good experiences. The search for flow and a sense of achievement meaningfully and intrinsically explains play.

The challenge to this postulate is that games have many other utility functions, social, economic and so forth. This paper has only preoccupied itself with what goes on within the magic circle. Not what happens when external forces steer the player in the game

References

[1] Chris Bateman and Richard Boon, *21st Century Game Design*, Charles River Media , 2006

[2] Mihaly Csikszentmihalyi *Flow*, Randomhouse ,2002

[3] Michael W. Eysenck and Mark T. Keane, *Cognitive Psychology, A Student's Handbook*, Psychology Press , 2000

[4] Tracy Fullerton, Christopher Swain and Steven Hoffman, *Game Design Workshop*, CMPBooks, 2004

[5] Henry Gleitman et al., *Psychology*, Norton , 1999

[6] Johan Huizinga, *Nature and Significance of Play as a Cultural Phenomenon* in The Game Design Reader , (1938) 2006

[7] Katie Salem and Eric Zimmerman, *Rules of Play* The MIT Press, 2004

[8] Jonas Heide Smith, *Plans and Purposes, How videogame goals shape player behaviour*, 2006

[9] Miguel Sicart, *Games as media*, www.itu.dk/courses/MGT/E2006/slides2/3%20-%20games%20as%20Media.pdf, 2006

[10] Bernard Suits, *The Grasshopper: Games, Life and Utopia*, University of Toronto Press, 1978

Ludography

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A Counter-Strike Questionnaires

These questionnaires were conducted via telephone and typed in. The 6 male respondants were in the age between 22 and 28. None of which plays Counter-Strike (CS) very frequently any more. Different answers concerning the importance of wins, are likely, if we had asked younger players or players who plays on a more serious level.

Player A

```
How many hours have you approx: played CS?
300

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
3

Whats your favourite team?
terrorist

Whats your favourite weapon?
AK-47

What weapon is most fun to make a kill with?
knife

Why?
It makes me feel superior, and it requires great stealth skills.

How important is it for you to win playing against vastly superior opponents? (1 -5)
1

How important is it for you to win playing against superior opponents? (1 -5)
4

How important is it for you to win playing against equal opponents? (1 -5)
5

How important is it for you to win playing against inferior opponents? (1 -5)
3

How important is it for you to win playing against vastly inferior opponents? (1 -5)
2

What's your most memorable moments while playing CS?
I can't remember a specific moment, but it gotta be knifing people I personally know, who are
of higher skill.

What's the worst moment you've had in CS?
Playing against vastly superior clan players, who take the game to seriously.

Have you ever cheated in CS?
No.
```

Player B

```
How many hours have approx: played CS?
100

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
```

2

Whats your favourite team?
Terrorists

Whats your favourite weapon?
Dual pistols

What weapon is most fun to make a kill with?
Knife.

Why?
It requires more skill to kill with the knife, so doing it gives more status. Also when I'm up against superior opponents. It gives me a chance to make a win within the game. If you loose with the knife it isn't really a loss. But if you win, you can be sure the victim is extremely pissed. And you can revert the goals of the game to be knife kills instead of round wins.

How important is it for you to win playing against vasty superior opponents? (1 -5)
3

How important is it for you to win playing against superior opponents? (1 -5)
5

How important is it for you to win playing against equal opponents? (1 -5)
5

How important is it for you to win playing against inferior opponents? (1 -5)
4

How important is it for you to win playing against vastly inferior opponents? (1 -5)
2

What's your most memorable moments while playing CS?

1: We where playing 4 vs 4 on the mansion level. My entire team had been wiped out, so It was vs the entire other team. I only had a gun and knife as weapons. I managed to sneak up on an opponent and kill him with the knife. Then I picked up his gun (the big ass machine gun) and continued to kill the rest of the team. Incidently my in game name was "John_Rambo".

2: I can't remember the name of the level, but it was me and one opponent left on the level. We ran into each other in a hallway. He turned around and disappeared around a corner. I followed, and was about to continue down the next hallway when I realized there was no way he could have reached the next corner with out me spotting him. So I emptied my AK.47 in a vending-machine that lay on the floor, followe by the text "Terrorists win".

What's the most fun moment you had during CS?
We where eight people siting in one of my friends apartments drinking beer, then we decided to spend the night at an Internet Café playing CS. We then dressed up as terrorists and counter-terrorists, with Barets, military jackets and plastic guns, and went down to the café. The sight of the customers and owner hen we entered is unforgetable.

What's the worst moment you've had in CS?
When I play with players I don't know who are either vastly superior or cheating keeps killing me before I realise what is happening and words like "NOOB!!!" and "FFS!!", keeps flying across the chat.

Have you ever cheated in CS?
No.

Player C

How many hours have approx: played CS?
200

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
1

Whats your favourite team?
Counter-terrorists

Whats your favourite weapon?
AVP

What weapon is most fun to make a kill with?
AVP

Why?
I don't know.

How important is it for you to win playing against vastly superior opponents? (1 -5)
2

How important is it for you to win playing against superior opponents? (1 -5)
3

How important is it for you to win playing against equal opponents? (1 -5)
5

How important is it for you to win playing against inferior opponents? (1 -5)
4

How important is it for you to win playing against vastly inferior opponents? (1 -5)
5

What's your most memorable moments while playing CS?
We had been playing the entire night, and in the early morning I realized that one of my opponents sitting next to me had fallen a sleep, even tho I had not noticed it in game.

What's the worst moment you've had in CS?
Whining losers who blame anything but their own skill for losing a round.

Have you ever cheated in CS?
No.

Player D

How many hours have approx: played CS?
75

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
2

Whats your favourite team?
terrorists

Whats your favourite weapon?
Steyr AUG

What weapon is most fun to make a kill with?
knife

Why?
It's the feeling of being up close and personal. It makes you feel superior and also if you kill the opponent, you get bragging rights.

How important is it for you to win playing against vasty superior opponents? (1 -5)
1

How important is it for you to win playing against superior opponents? (1 -5)
2

How important is it for you to win playing against equal opponents? (1 -5)
2

How important is it for you to win playing against inferior opponents? (1 -5)
3

How important is it for you to win playing against vastly inferior opponents? (1 -5)
1

What's your most memorable moments while playing CS?

We where playing the Aztecs level, while jumping down from the bridge, I noticed an enemy and fired of a few rounds, one of which was a headshot. All of this happened while I was in air.

What's the most fun moment you had during CS?

Me and a few of my friends where playing via the net versus a far superior clan, who used advanced tactics and thus kept beating us. After a few rounds with no chance to win, we realized that part of their tactic was to keep a lone sniper at a certain point on the map. So we all armed ourselves with the knife and zerged him. We ofcourse still lost, but we got the lone sniper. After a few rounds of using this tactic, the clan-team refused to play us anymore.

What's the worst moment you've had in CS?

Cheating. There is nothing worse than playing vs opponents who keep making impossible headshots. You just know they're cheating when the last 30 kills have been headshots.

Have you ever cheated in CS?

No. Well, my dead teammates sometimes give me the location of opponents through the spectator mode. But this isn't often.

Player E

How many hours have approx: played CS?
300

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
2

Whats your favourite team?
CT

Whats your favourite weapon?
Steyr-AUG

What weapon is most fun to make a kill with?
Dual pistols conquered from terrorists

Why?
They are hard to get, very precise, have a high rate of fire, but still have the coolness of a pistol kill.

How important is it for you to win playing against vasty superior opponents? (1 -5)
3

How important is it for you to win playing against superior opponents? (1 -5)
3

How important is it for you to win playing against equal opponents? (1 -5)

4

How important is it for you to win playing against inferior opponents? (1 -5)
2

How important is it for you to win playing against vastly inferior opponents? (1 -5)
1

What's your most memorable moments while playing CS?
Some years ago, playing as terrorist against a vastly superior opponent on an old version of cs_mansion, the one that features a light switch by the main door. I very carefully sneaked below the windows to the light switch, stood up and turned off the lights in the building. A fraction of a second later I heard the boom of the largest sniper rifle in the game and I was dead by headshot. Very surprised I asked him how he knew where to shoot. He simply remarked that I used the light switch...

What's the most fun moment you had during CS?
Well, the most fun moment I can remember right now is playing against an old friend of mine who is of roughly equal skill in CS. Playing on an urban level we managed to eradicate all of our respective team mates and spent 5 minutes dashing back and forth between the rooms - until we suddenly ran into one another, both carrying automatic shotguns - managing to kill each other at the same time, the round ending in a draw.

What's the worst moment you've had in CS?
Playing on the Internet in recent years, where people on public servers generally are so good that I get killed all the time and generally feel like I'm being more of a nuisance than an asset to the team.

Have you ever cheated in CS?
No

Player F

How many hours have approx: played CS?
400

On a scale from 1 to 5, with 5 being the highest, how would you categorize your own CS skill?
4

What's your favourite team?
CT

What's your favourite weapon?
AWP

What weapon is most fun to make a kill with?
AWP

Why?
The fact that you only have one chance, most likely, and you must be extremely precise within a very short timespace.

How important is it for you to win playing against vasty superior opponents? (1 -5)
2

How important is it for you to win playing against superior opponents? (1 -5)
4

How important is it for you to win playing against equal opponents? (1 -5)
3

How important is it for you to win playing against inferior opponents? (1 -5)
2

How important is it for you to win playing against vastly inferior opponents? (1 -5)

2

What’s your most memorable moments while playing CS?
" Being alone, all my teammates were wiped out without having killing a single enemy, and I killed the 8 enemies with AWP and Desert Eagle while storming around the map.

" Played with friends a few hours with the fastest shooting weapon available, always running, never stopping. Constantly spamming the chat with "Charge" commands. This resulted in other players adopting the idea and the prefix "GUNZ_BLAZING".

What’s the most fun moment you had during CS?
Screwing around in chat with strangers. Knifing campers. And the moments mentioned in the above.

What’s the worst moment you’ve had in CS?
Boredom, playing extremely badly designed maps, people whining in chat & Cheaters. Playing with a friends Clan, where the game was taken way to serious.

Have you ever cheated in CS?
No