Exploring Aesthetic Ideals of Gameplay

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ABSTRACT
This paper describes a theoretical exploration of aesthetics ideals of gameplay. Starting from observations about the game artifact, several gameplay properties that can affect the aesthetical experience are identified, e.g. tempting challenges, cohesion, and gamer interaction. These properties are then used to describe several aesthetical ideals of gameplay, e.g. emergence, reenactment, meditative, and camaraderie. The properties and ideals provide concepts for how games attribute aesthetical value to gameplay design and how they distinguish their own preferences from inherent qualities of a game artifact.

Author Keywords
Gameplay, Aesthetics

INTRODUCTION
What makes a game well-designed or "good"? Is it possible to suggest "good" games to others even if oneself does not find the games entertaining? Trying to answer the first question is difficult – or impossible, if one wishes to allow for different subjective views – whilst the second question suggests that people have concepts of good games that they do not think are fun to play.

In this paper we explore these questions through theoretical reasoning on gameplay aesthetics. We see this subfield of aesthetics as one of many possible fields that together create the overall aesthetics of a specific game, but the one which unarguably affects all games. This is in line with seeing that both "virtual" rules and "real" themes affect a game experience [16], and that games are trans-medial, i.e. independent of the media it is instantiated in. Although this paper focuses on gameplay aesthetics, we acknowledge that this is not always the key component of the experience of the game; people may play games as a means to get to know each other, or to spend time with their children, seeing them improve.

Even so, our focus of study is on the game artifact, and the gameplay it provides. Although game research can also be based upon studying gamers or the gaming activity [4], the choice of games is in line with previous aesthetical research and encourages a raised awareness between the objective and subjective properties of the artifact.

Given the trans-medial nature of games, we have chosen to analyze several types of games, agreeing with the view that that understanding gameplay from an aesthetic point of view is "*best pursued by understanding a design in relation to other contemporary and historical designs*" [22]. Card and board games are slightly over-emphasized only because gameplay often is easier to discern in them.

Defining Gameplay
Before turning to gameplay aesthetics it is proper to clarify how the concept gameplay will be used in this paper. Gameplay has been described as *"a consequence of the game rules and the dispositions of the game players"* [16], and as including *"the possibilities, results and the reasons for the players to interact with the game"* [3]. These descriptions allow for a wide range of activities including free play, "pure" roleplaying, machinima creation, and physics testing. Rather than including all these we limit them to intentional goal-driven activities and refer to this as gaming (similar to what has been proposed in [4]). Hence, here the term gameplay relates to the interplay between a game's rules and the player's interaction with them which, in combination lead to an aesthetic of gameplay.

AESTHETICS
Aesthetics was first explicitly described in 1750 [28], as the field that described what could be experienced and thus known via the senses. Although proposed as a new science, the notion of aesthetics was quickly connected to the appreciation of art and judgment of taste [18]. Since the beginning of the 20th century the number of art styles has exploded in number (including e.g. dadaism, cubism, futurism) which changed the view on aesthetics; every art direction described its own aesthetic ideals and views, often in stark contrast to each other [9,29,31]. Even so, Dutton has described 7 universal factors of aesthetics (retold in [25]): expertise, non-utilitarian pleasure, style, criticism, imitation, special focus, imagination.

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Aesthetics in Games

That games have inherent strong aesthetic possibilities can easily be argued by noting the similarities between the components used in definitions of games and aesthetics; several of Dutton's factors are covered. Describing games as representing for instance "*a subset of reality*" [7] relates to how games typically imitate a portion of reality and require imagination of both designers and gamers to participate in the activity – similarly to how art is often defined, cf. [29]. Additionally, the non-utilitarian aspect of games is clearly argued in Suits definition [27] that playing a game is *"the voluntary effort to overcome unnecessary obstacles"*. This view is also echoed by those who use the "flow" concept [8] to describe gameplay since this implies autotelic properties. Notions of art as being something set apart from everyday life also have an equivalent in theories of game and play, e.g. in Huizinga's "Magic Circle" [15] and special instances of Goffman's "frames" [11]. Just like artists, game designers are recognized for their expertise, e.g. Will Wright, Sid Meier, Reiner Knizia, and Wolfgang Kramer. Finally, it goes without saying that games receive criticism through press reviews, forums and prizes such as Game Developers Choice Awards and Spiel des Jahres.

Given this framing it may be surprising that little game research have explicitly discussed aesthetics. One may argue that this is because many specific aspects of a game's aesthetics have already been covered in other areas, e.g. narrative structures, visual presentation of humans or architectural styles. Although these may be reused for games they do address only these specific aspects related to games. In particular, they do not relate to the interactive aspect of manipulating the game artifact.

There are some notable exceptions to this, the first being Järvinen's toolbox of concepts based upon emotion theory [17]. Building on several different types of emotions (play, aesthetic, and preference and transfer), he describes how these can be raised during gaming through various parts of games. Taking a holistic approach, his work does not explicitly distinguish gameplay aesthetics from other types of aesthetics. Secondly, Giddings and Kennedy argue that "*any consideration of videogame play aesthetics must consider questions of agency*" [10], and introduce the concept of control and cybernetic aesthetics. They identify gameplay as being in between cybernetic feedback loops and the original notion of aesthetics, but do not make explicit distinctions between gameplay and play in general. LeBlanc [21] instead proposes a three-layered model for understanding the gameplay experiences consisting of mechanics, dynamics, and aesthetics. LeBlanc stresses that although the mechanics can be said to always exist the dynamics and aesthetics only exist while the game is being played. However, this does not mean that designers cannot influence the gameplay aesthetics; designers have an intended aesthetics in mind when they design which they hope to evoke in gamers through the mechanics, by way of the dynamics.

Any work focusing on how people experience games can arguably be considered to be at least partly concerned with aesthetics. The attitude of the gamer towards one's locus of manipulation, or Focus Loci [3], has been identified as a way for gamers to direct their game experience towards narrative or ludic stances [2]. In the context of gameplay aesthetics, this points towards one way to separate gameplay aesthetics from other types of aesthetics in games. Genres and similar concepts have been used by academia, press and user communities alike to group and describe games, in a way seemingly related to game aesthetics. Wolf [32] identifies 42 genres in computer and video games while the boardgamegeek website [9] uses a similar amount to classify card and board games. Although these give insight into specific details about game designs they also risk placing the same game in a lot of different groups (e.g. mixing mechanical categorizes like bluffing with thematic ones like Space Exploration). Although problematic, these types of categorizations can help understand the experience of playing the games thus categorized, but for the purpose of discussing aesthetics of gameplay genres runs the risk of occluding gameplay details with other details, e.g. game themes.

Another way to approach how people experience games is to create different categories based upon their preferred playing style. This was first done by Bartle for text-based multiplayer online games where the categories killers, socializers, achievers, and explorers were identified [1]. In a similar vein, Yee [33] conducted a study spanning more than 3 years and collecting data from over 5000 gamers in graphical versions of massively multiplayer online games, identified relationship, manipulation, immersion, escapism, and achievement as five distinct factors for gaming. These categories point towards different gamer preferences in gameplay but since they are categorizations related to gamers they cannot directly be used to discuss the artifacts. The fact that they have been identified from only one category of games poses another challenge to apply them to gameplay aesthetics generally.

Given the above we can conclude that just as in any other discipline, game design features its fair share of different views on aesthetics. In this paper we build on four of them, firstly Aki Järvinen's observation that designers need to take aesthetical stances as they commit to projects since their goals are to illicit specific emotions from players. Secondly, LeBlanc's notion that game designers do use "tools" like game mechanics in their design in order to reach a certain aesthetic ideal. Thirdly, that these aesthetic ideals sometimes, but not always coincide with genre classifications, which suggest further exploration. Lastly, that there are different motifs for playing games, i.e. different types of players, who prefer different types of games, i.e. have different types of aesthetic ideals when it comes to what makes a game "good" – or not.

GAMEPLAY PROPERTIES RELEVANT TO GAMEPLAY AESTHETICS

In this section we list properties of gameplay that seem to be relevant for gameplay aesthetics. This list is by no means final, exhaustive or perfect, but instead reflecting the aesthetic ideals we are analyzing in the next section. As per our research stance, the properties are primarily based in the rule structures of the games. The properties presented do in several cases overlap each other but are described separately since they provide different entry points.

Rule Consistency

Consistency as an aesthetic virtue is nothing new; it has been an aesthetic value in (western) art for thousands of years [9,29,31]. That the rules of a game need to be consistent, i.e. non-contradictory, can seem to be obvious. Still, a noteworthy example of a game that toys with this property is *Nomic* (described in [13]) where the rules are changed during play and one of the victory conditions is to prove that the rules are inconsistent.

Simplicity

Simple, well-defined rules are easy to understand which makes a game more accessible. Nevertheless it may not be easy to play; many classical complex games such as *Chess* and *Go* have simple rules.

Use of Chance

The role of chance in games is a likely source of debate; some believe that chance should be limited as much as possible (e.g. *Othello*) and others prefer games with a very high chance component (e.g. *Rock-Paper-Scissors* or *Craps*). Both extremes can be criticized: a game with little or no chance may cause "analysis paralysis" [3] and it can be difficult for two gamers of different skill levels to play together, whereas too much chance can make the feeling of agency non-existent.

Emergence

When looking at games as systems, it becomes interesting to note whether gameplay arises as a result of specific rules that cover each instance of gameplay, or more general rules. In *Chess*, for instance, there are specific rules for how each piece moves, and a general rule saying that all pieces can be captured. General rules tend to foster emergent gameplay since they lead to synergy effects; the general rules cooperate in creating a vast number of possible courses of events in the game.

Although emergence can occur in any significantly complex games, games such as *Go* and *Chess* are archetypical examples, having few rules and perfect information but still generating complexity.

Whereas instance rules can be criticized for limiting gamers too much and lacking novelty, emergent gameplay can quickly become difficult to have an overview of, and may be vulnerable to exploits and degenerate strategies.

Rule Cohesion

Here, cohesion describes how tightly integrated rules are with each other. If no rule cannot be removed or altered without this resulting in large changes in gameplay, the rule set is cohesive.

Cohesive games are very vulnerable to poor rules and provide little room for experimentation. It can also be hard to uphold a real-life theme. On the other hand, a game lacking rule coherency can be experienced as arbitrary and fractured. Changing rules in well-balanced games probably make them unbalanced regardless of cohesion, but for cohesive games it is more likely that the effects are immediately apparent.

Tempting Challenge

Another important gameplay property is *"tempting challenge"* [23]. Not only do games need to offer gamers a challenge, this challenge must also be interesting and on such a level that the gamer can overcome it, albeit not too easily. The relation between skill and difficulty is one example which influences this, and can be explained through the concept of "flow" [8].

Secondly, the challenge also has to be tempting. What constitutes tempting of course differs between gamers. Novelty is one aspect; as gamers explore a game they learn it, and once something is mastered the challenge disappears; it is no longer tempting (indeed, this learning process has been described as the raison d'être of games [19]). Curiosity, or the urge to beat someone's high score can be other aspects.

Meaningful Choice

This is closely related to *Tempting Challenge*; since a game's level of difficulty typically increases with the number of choices that are offered to the gamer; games without choices are not games at all. However, choices in themselves are not enough – gamers must still feel that there is a point in making them. Making choices meaningful can be difficult; it's a balance between forcing gamers to make completely uninformed choices and choices based upon perfect information. *Meaningful Choices* can be seen as a part of "meaningful play" [26], but only focused on making decisions rather than on planning.

Varying Strategies

While having the right amount of background information is important to make choices meaningful, it is also important how far into the future the effects of a choice can be predicted. Thus, one can see a link between the properties of *Meaningful Choices* and *Varying Strategies*. Strategy can be seen as a series of choices, and a designer must always be on the lookout for obvious (also known as "*degenerate*") strategies; since these, once discovered, will ruin the game by removing the challenge from it. A good example is *Tic-Tac-Toe*, which, once mastered, hardly can be considered an interesting game.

Game Balance
Balance in games has two aspects. Either, it is about balancing gamers' chances of winning by focusing on starting conditions or on balancing gamers during gameplay, e.g. by punishing the leader somehow. Or, it is about internal balance, i.e. balancing the effect of the different actions or components in the game.

Game Balance is related to *Varying Strategy*, since the lack of internal balance can force degenerate strategies and lead to less interesting choices.

Minimal Excise
The amount of none-goal-related work, or excise [6], differs greatly between games; in a card game it can be about playing a card which takes an instant, in a miniatures game the actual moving of the miniatures might take as long or longer than deciding where they should go. It may seem obvious that *Minimal Excise* is good in a game since it minimizes the periods between when *Meaningful Choices* can be made. However, including excise can give time for reflection and planning and can be used to build tension.

Computer and video games can be made to handle almost all excise. Still, some online computer games, e.g. *World of Warcraft*, have given rise to the grinding, a form of voluntary excise. Although grinding can be seen the opposite of *Minimal Excise*, it also provides the possibilities of always having something to do in the game and provides a way of proving one's dedication to a character and the game.

Integrated Theme
Many games have explicit themes and in these cases the gameplay experience is affected by how well the rules and theme map each other. When themes help gamers remember and understand rules they can improve the experience by providing a consistent framing, e.g. that rectangular pieces (boats) cannot move on green spaces (land). Therefore, almost all games with many rules have a theme – without it, it is impossible for gamers to remember the rules.

Accurate Simulation
Some games have *Accurate Simulation* as an explicit design goal. In this, it is a much more exact version of *Integrated Theme* intensely focused on the coupling between a gamer's choices and their outcomes – a simulation is only accurate if the gamers consider potential actions in the same way as decision makers do in whatever is being simulated. Further, the outcomes of decisions in a game must be thematically believable, which explains why some dislike the possibility of combat between tanks and chariots in *Sid Meier's Civilization IV*. Making rule-sets thematically believable increases with complex worlds, especially if allowing open gameplay e.g. *World of Warcraft* and *Fallout 3*.

It is worth noting however, that some games rely upon an implicit understanding that gamers should not attempt to "break" the game by looking to closely for degenerate strategies. E.g. *Hearts of Iron 2* can lead to "unhistorical events" such as Germany invading Japan, but playing so is disliked by some because one is not "*roleplaying*" how the nation historically behaved.

Gamer Interaction
The amount of interaction between gamers differs substantially between games. In addition, the type of gamer interaction can differ from passive (e.g. overtaking someone in a race on different tracks) to friendly (e.g. trading) to competitive (e.g. bidding) to aggressive (e.g. invading, stealing, killing). The amount of aggression in a game seems to be an important factor for many gamers, regardless if they want it or prefer to avoid it. Interestingly, some games can be skewed either way through social contracts between gamers, e.g. by agreeing to refrain from warfare in *Sid Meier's Civilization IV*.

Gamer Elimination
When *Gamer Interaction* is taken to its extreme it results in *Gamer Elimination*; i.e. the exclusion of a gamer from further gameplay. Many games have this as the one and only victory condition, e.g. *Monopoly*. In other games it is impossible for a gamer to be ousted from a game before it is over, e.g. *Ludo*. Games with gamer elimination are routinely criticized for letting some gamers wait while the remaining gamers finish the game, while games without gamer elimination are criticized because a gamer with small chances to win must stay in the game to the end. Note also that many gamers take great joy in eliminating other gamers.

Skill
All games require a certain analytic and strategic or tactical skill, but some games also require other skills, such as creativity (*Balderdash*), drawing (*Pictionary*), reactions (*Gears of War*) or bluffing and empathy (*Liars Dice, Poker*). These games can be differentiated from others since it is hard to give instructions on how to play successfully; telling someone to *"draw better"* is hardly helpful.

Skill-based games contain an inbuilt imbalance, since some are more skilled than others, but the required skill can usually be practiced. Most skill-based games have simple rules, which can make them appealing even to inexperienced gamers.

Micro Management
Mostly an issue in strategy computer games, micro management can sometimes become excessive due to the amount and level of choices presented, resulting in large amounts of low-level decision making. This is, in a sense the opposite to *Minimal Excise,* which is why some gamers deride it, saying that the choices presented to a gamer should be appropriate to the level of the gamer in the imagined "*chain of command*" while others consider this a *Skill* which really sifts the good gamers from the bad.

Limited Play Time

Many games have play time that is somehow limited, either because the game (or a session of it, as in a role playing campaign) typically takes x minutes to play, or because the rules state that it ends after a certain time, as in *Space Alert*. Some games, e.g. *Lego Star Wars*, allow one gamer to drop in and out of the game without significantly ruining the other gamers' gameplay.

Games where excessive planning gives advantages may lead to irritation from other gamers or lead to "*analysis paralysis."*[3] Limited gameplay time can also be used for activities inside a game to create stress and tension, e.g. when gamers note that time is running out. However the latter may also result in gamers giving up before the game ends.

AESTHETIC IDEALS OF GAMEPLAY DESIGN

Below, we present a number of aesthetic ideals which we have found in gameplay design. The idea to categorize games in different ways in relation to the designer's intention or standpoint is not completely new. For instance board game designers talk about approaching the design of a game from theme or mechanics [23, p.83].

The aesthetic ideals presented here are however closer related to "movements" within the art world than genre classifications. Being concepts not formally defined, the aesthetic ideals have blurry borders and the descriptions state the typical gameplay properties relevant to create the certain aesthetic, rather than an explicit list of requirements. Note that some games are used as examples in several ideals, this since they are so complex that they provide different types of aesthetic ideals.

Although some of the aesthetic ideals we describe are more or less established within the gaming community, others are not. This is also a similarity with art movements; some are created by artists and proclaimed in manifestos while others are described by researchers (sometimes after the movement has faltered).

Caveat: Fundamentals

There may seem to be an underlying fundamental design approach which all aesthetic ideals build upon. In this approach one strives for a game featuring *Rule Consistency, Simplicity, Tempting Challenge, Meaningful Choices, Varying Strategies, Game Balance and Minimal Excise*. Still, many popular games lack one or several properties, especially Light Games (as described below). However, this approach is so general it gives little information for both designers and researchers, other properties must be added to skew the game towards an aesthetic ideal that appeals to certain players by providing a *Tempting Challenge* for them.

Light Games as Aesthetic Ideal

"Light" games (i.e. children's games or simpler family games) need to be easy to learn, fast to play, and seemingly fair since they aim entertaining the children and at the same time not bore the adult participants to tears. *Use of chance* is very common in games of this approach, e.g. *Ludo*, *Monopoly*, and *Chutes and Ladders*. *Minimal Excise* is easily achievable due to the simple rules while *Rule Cohesion* is not in focus (e.g. by having special rules that are randomly invoked through cards). The primary means of *Game Balance* comes from the multitude of randomness used although internal balancing and avoidance of positive feedback loops are often not considered. *Accurate Simulation* is difficult to instantiate in this approach due to the simple rules while the property of *Emergence* and *Skill* is actively avoided to fit all potential gamers. The heavy reliance on chance typically makes games of this approach lack strategy and therefore also limits aspects of *Meaningful Choice* and *Tempting Challenge*. Gamer interaction is typically destructive but only possible due to random factors making it socially acceptable (e.g. *Ludo*). Even if this may lead to *Gamer Elimination* this is typically offset by the *Limited Play Time* and can actually help enforce it.

Pottering as Aesthetic Ideal

This approach takes its name from the activity described as "*encompasses the kinds of things frittered between (usually in leisure time) with little or no purpose*" [50]. Examples of this approach include *Harvest Moon* and *The Sims*, *Sim City* and early *Railroad Tycoon* series. Typically pottering games have rich diegetic worlds with *Integrated Themes* and believable if not *Accurate Simulations*. These worlds provide varying strategies by having many possibilities of interaction, but the designs depend on gamers setting their own *Tempting Challenges* and thereby make choices meaningful. *Excise* and *Micro Management* are endorsed rather than avoided since they provide ample opportunities for pottering. If *Emergence* appears it is more often the effect of gamer skill then game design. Being primarily solitary activities, games in this approach have very little or no *Gamer Interaction*. This also means that the approach typically lets gamers have long or unlimited gameplay time and lets gamers play whenever they want.

Pottering games may seem to counter the idea of what games are since in many cases avoiding losing is easy and the games usually lack an explicit goal or winning condition. Although they can be played as regular games, another attraction is that they provide activity that one can come back to intermittently and set new goals for each play session.

Emergence as Aesthetic Ideal

The emergence design approach is exemplified by *Go, Chess, Xiangqi*, and *Othello*. As the name suggest the focus lies on the property of *Emergence* but typically also stresses *Simplicity* and *Rule Consistency* as well, since these highlight the emergence present. Although *Integrated Themes* may help explain the basic components they seldom translate into the emergent aspects of the game. Paying little interest to theme makes it difficult for this

approach to provide *Accurate Simulations* of any phenomena. Trying to achieve maximum emergence from minimal rules and means typically excludes *Micro Management,* promoting *Minimal Excise.* However, the ability of predicting effects of actions, which may be seen as being able to appreciate the emergence, is often a gamer *Skill* and could be seen as a form of pre-action excise. This is often equal to exploring *Varying Strategies,* and showing that one can do this better than one's opponent is the main way to provide *Tempting Challenges*. This is related to that this type of games tend to rely on a high degree of aggressive *Gamer Interaction*, typically having *Gamer Elimination* as the main goal. The game rules typically do not feature *Limited Play Time*, but since gamer planning is essential for the game this is actually limited in gaming rules, especially for tournaments.

It is worth noting that the most well-known games in the approach have evolved rather than been designed. One reason for this may be that it is difficult to achieve *Game Balance* without extensive testing. Many of the minor exceptions from *Rule Cohesion*, which is an important part of the approach, are probably to fine tune emergence and meaningful choices. Examples of such exceptions include the Ko (and super Ko) rule in *Go* and the special moves En Passant, Promotion, and Castling in *Chess*.

Meditation as Aesthetic Ideal

Games belonging to this approach offer engrossment in small tasks requiring immediate attention; sometimes the entire game is about effective *Micro Management*, as in *Tetris*. Using *Simplicity* and *Limited Play Time* they provide private moments of relaxation from other activities, or, if played over and over again, a form of active meditation. *Use of Chance* typically provides variation between game instances while having a *Theme* or *Accurate Simulation* is not necessary. Examples of such games include *Zoo Keeper*, *Free Cell* and *Solitaire*.

The meditative qualities of this approach relies on gamers achieving flow experiences, so the *Tempting Challenge* is often *Skill*-related, be they based on reflexes, pattern recognition, or analysis skills. These games are typically about problem-solving, and to make this sustainable over time they are typically built on small rule sets with *Rule Consistency* and *Rule Cohesion*. These rules, and the typical lack of *Emergence*, mean that the possibility for *Varying Strategies* is small and making a *Meaningful Choice* is often the same as making the right choice. This makes *Minimal Excise* critical to game designs in this approach, but interestingly enough the generalized gameplay activity can be seen as exactly these activities. Many of them are also unbalanced in the sense that it can be very hard or impossible to achieve an ultimate win, with success typically measured by high score lists. The *Use of Chance* can also provide certain game sessions that are much easier than others, which can be seen as a problem of internal *Game Balance*, but the statistical occurrence of these can be seen as rewards for perseverance.

Player Adaptability as Aesthetic Ideal

This approach values gameplay where gamers constantly have to adjust their plans and strategies. While featuring *Simplicity*, they tend to have slightly larger rule sets than emergent games since the *Tempting Challenge* lies more on having a deep understanding of the rules than on having the ability to traverse decision trees deeply. To enable this *Rule Consistency* and *Rule Cohesion* are important while *Emergence* and *Gamer Interaction* play the role of making choices context dependent. Gamer interaction is typically on the friendly end of the scale since showing one's *Skill* is more important that defeating opponents. *Use of Chance* can be used to create unpredictability and varied game instances but only in limited amounts since too much chance obfuscates the gamers' skills. Examples of games in this approach include *Race for the Galaxy*, *Magic the Gathering,* and raiding in *World of Warcraft*.

This approach emphasizes being able to use emergent features of the game mechanics to one's advantage as well as being able to detect important but subtle changes in the game state. *Varying Strategies* and replayability are key to the aesthetics since this allows gamers to show that they can adjust their actions to different contexts.

Reenactment as Aesthetic Ideal

Some game designs strive to create believable variations of historical events. The main category of games belonging to this approach are wargames, e.g. *Operational Combat Series: DAKII*, *EuroFront,* and *Conflict of Heroes: Awakening the Bear*, but other examples are *1829* (and the whole 18xx series), the *Europa Universalis* series, and *History of the World*.

Designing in this approach poses delicate design problems between historical correctness and *Game Balance*. This due to military engagements rarely being balanced and seldom it is clear that different strategies were available to the decision makers. The theme often dictates aggressive *Gamer Interaction* and *Gamer Elimination*. *Simplicity* and *Rule Cohesion* are trumped by the property of *Integrated Theme* and *Accurate Simulation* but are otherwise adhered to. *Use of Chance* may create variations of the historical events and may illustrate the unpredictability of military plans. Reenactment games contain a surprising amount of *Excise* in the form of rolling dice, counting odds, consulting tables, etc. Excise and *Micro Management* also exist in the form of moving markers and figures; providing *Meaningful Choices* at the same level of granularity as the decision makers at the time had available.

Camaraderie as Aesthetic Ideal

The camaraderie approach focuses on how gamers can achieve more through working as a group than is possible individually. This gives rise to a limited form of *Emergence* and naturally *Gamer Interaction* is vital, including that of a

purely social nature. This approach is somewhat more abstract than the other approaches in that it only deals with a subset of the gameplay, and is often a complement to another approach. *Arkham Horror*, *Shadows over Camelot*, *Enemy Territory: Quake Wars*, *World of Warcraft*, and the *Battlefield* series are examples of how this approach can be instantiated in games.

Games of this approach are often designed so that gamers have functionally different roles which also provide *Varying Strategies* on a personal level in addition to what exist on a team level. *Rule Cohesion* and *Game Balance* in camaraderie games have to take into consideration the different roles available; if a role is not necessary it is likely that someone choosing that will not feel as an important part of the group. These property of *Skill* can manifest on two different levels for these games; on a level of being able to perform within a certain role and on being able to "*read*" what role is required and taking that role. If *Gamer Elimination* exists in the game this is usually mitigated by *Limited Play Time* for each game session, since the group feeling might otherwise be endangered.

Meta-game as Aesthetic Ideal

This approach lies in having a gameplay which brings value to activities that take place before or after actual gameplay. Although these activities are not gameplay themselves, the aesthetics of the gameplay lies in how it encourages the activities and gives the activities a raison d'être. Examples of such meta-game activities include deck building in *Magic the gathering*, prop and character creation in live action roleplaying scenarios, miniature painting and army building in *Warhammer Fantasy Battle*, and planning and training for raids in *World of Warcraft*. It seems that an *Integrated Theme* promotes meta-gaming since it provides more identification and immersion than an abstract game.

Planning gameplay and creating game artifacts are two common ways to connect gameplay to meta-game activities. Games with emergent features can support the former while the latter typically is achieved by having the property of a gamer-created *Integrated Theme*. *Limited Play Time* is often required, both to give deadlines when the activities have to be finished and since part of the value of the preparatory activities lies in the ratio between the time spent on them and the gameplay time. Although games rarely aim at being inconsistent or too difficult to play, having rules that require discussions to ensure that one has the right interpretation may benefit the meta-game approach.

CONCLUDING DISCUSSION

Our exploration of gameplay aesthetics started with two questions regarding what makes a game perceived as "good" and if or why it is possible to make that judgment for others. With the introduction of ideals we can now say that a person thinks a game is "good" (regarding gameplay) if it matches his or her preferences regarding ideals of gameplay aesthetics. To suggest a game to someone else is simply the act of matching one's understanding of the game's gameplay with one's perception of another person's aesthetical ideals. This answer presumes a (maybe implicit) model of what gameplay is wished for; these are the models of the type developed by Bartle [1] and Yee [33]. In this way the ideals can be seen as a counter model to those describing user preferences but that together can explain matches or mismatches in expectation and experience. Ideals also provide a way of explaining why one may have grown bored with a game (e.g. from it no longer supporting *Tempting Challenge*, flow [8] or learning [19]) but still consider it "good" – one appreciates its gameplay aesthetics and acknowledges that it has the possibility of being fun for somebody else.

Of course the ideals presented are not a complete list; there may well be several others. Additionally, the ideals are not all-encompassing; any game that can be said to belong to an ideal will not per default suit someone who likes the ideal. Like genres they are sweeping categories that provide general suggestions but need to be complemented by a range of other aspects (e.g. theme, medium, use context) to come to a reliable conclusion about a game's suitability for a given gaming situation. Although the validity of individual ideals and the gameplay properties they build upon can be explored in future empirical studies, the idea of ideals can independently help develop the expressiveness in discussions regarding gameplay aesthetics and game experiences.

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REFERENCES

1. Bartle, R. (2006) Hearts, Clubs, Diamonds, Spades: Players Who Suit MUDs. In Salen, K. & Zimmerman, E. (eds.) The Game Design Reader: a Rules of Play Anthology, pp. 754-787. MIT Press, 2006.

2. Bayliss, P. (2007). Beings in the Game-world: Characters, Avatars, and Players. Proceedings of the 4th Australasian conference on Interactive entertainment, Melbourne, Australia, 2007.

3. Björk, S. & Holopainen, J. (2004) Patterns in Game Design. Charles River Media. ISBN1-58450-354-8.

4. Björk, S. (2008). Games, Gamers, & Gaming – Understanding Game Research. Proceedings of MindTrek 2008, 7-9 October 2008.

5. www.boardgamegeek.com

6. Cooper, A. & Reimann, R. (2003) About Face 2.0: The Essentials of Interaction Design, Wiley; 1st edition.

7. Crawford, C. (1997) The Art of Computer Game Design. Berkley: McGraw-Hill/Osborne Media.

8. Csikszentmihalyi, M. (1997) Creativity: Flow and the Psychology of Discovery and Invention. New York: Harper Perennial.

9. Eco, U. (2004) On Beauty: A History of a Western Idea, Rizzoli International Publications.

10. Giddings, S. & Kennedy, H. (2008). Little Jesuses & Fuck-Off Robots: aesthetics, cybernetics, and not being very good at Lego Star Wars. In Swalwell, M. & Wilson, J. (eds.) The Pleasures of Computer Gaming: Essays on Cultural History, Theory and Aesthetics (forthcoming February 2008).

11. Goffman, E. (1972). Fun in Games. The Penguin Press, New York, 1972 (1961).

12. Guilfoil, M. (2001) Beyond the Myst. Interview in The Spokesman-Review. Available online at http://www.spokesmanreview.com/ pf.asp?date=052201&id=s966647 Retrieved on 2008-11-11.

13. Hofstadter, D.R. (1999). Gödel, Escher, Bach: An Eternal Golden Braid. Basic Books.

14. Holopainen, J. (2008) Play, Games, and Fun. In Extending Experiences, Fernandez A., Leino O. and Wirman H. (eds.), University of Lapland Press, 2008.

15. Huizinga, J. (1938/1986). Homo Ludens: A Study of the Play-element in Culture. Beacon Press.

16. Juul, J. (2005). Half-Real: Video Games between Real Rules and Fictional Worlds. The MIT Press, 2005.

17. Järvinen, Aki. (2008). Games without Frontiers. Ph.D. thesis, Department of Literature and the Arts, Tampere University.

18. Kant, I (1892) The Critique of Judgement, translated with Introduction and Notes by J.H. Bernard (2nd ed. revised) (London: Macmillan, 1914). Accessed from http://oll.libertyfund.org/title/1217 on 2009-03-06

19. Koster. R. (2004). Theory of Fun for Game Design. Paraglyph, 2004.

20. Kramer, W (2000) What makes a game good, The Games Journal. Retrieved online 2008-12-15 from http://www.thegamesjournal.com/articles/WhatMakesaGame.shtml

21. LeBlanc, M. (2006). Tools for Creating Dramatic Game Dynamics. In Salen, K. & Zimmerman, E. (eds.) The Game Design Reader: a Rules of Play Anthology, pp. 438-459, MIT Press, 2006.

22. Lindley C. A., Nacke, L. & Sennersten C. (2007) What does it mean to understand gameplay? LEDA 2007, 28-30 November 2007, Aalborg University Esbjerg, Denmark.

23. Lundgren, S. (2006) Facets of Fun: On the Design of Computer Augmented Entertainment Objects. Lic. thesis, Chalmers University of Technology, Gothenburg, Sweden.

24. Meier, S. (2004). Quoted in Fullerton, T., Swain, C. & Hoffman, S. (2004). Game Design Workshop: Designing, Prototyping, and Playtesting Games. CMP Books.

25. Pinker, S. (2003). The Blank Slate: The Modern Denial of Human Nature. Penguin.

26. Salen, K. & Zimmerman, E. (2004). Rules of Play – Game Design Fundamentals. The MIT Press.

27. Suit, B. (1990). Grasshopper: Games, Life, and Utopia, 1990. Broadview Press

28. Sundin, B. (2003) Estetik och Pedagogik, Bokförlaget Mareld, Sweden.

29. Tatarkiewicz, W. (1980) A History of Six Ideas. An Essay in Aesthetics. (Melbourne International Philosophy Series), Martnus Nijhoff / Polish Scientific Publishers, Warszawa.

30. Taylor, A.S., Wyche, S.P. & Kaye, J. (2008). Pottering by design. NordiChi 2008, October 20-22, 2008, pp. 363-372.

31. Vihma, S. (2003) Designhistoria, Raster Förlag, Stockholm.

32. Wolf, M.J.P. (2002). The Medium of the Video Game, University of Texas Press, 2002. ISBN: 029279150X.

33. Yee, N. (2006). The Demographics, Motivations and Derived Experiences of Users of Massively-Multiuser Online Graphical Environments. PRESENCE: Teleoperators and Virtual Environments, 15, 309-329.