

Players' Emotional Experiences with Digital Games

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ABSTRACT

It has been suggested that people play digital games particularly for the emotional experience they provide. The emotional responses of the players of different digital games ($n = 247$) were measured by using self-report scales of fear, anger, pleasant relaxation, joy, and depressed mood. The results showed that joy and pleasant relaxation dominate the emotional experiences, and that also fear and anger are present in some degree, but depressed feelings are almost non-existent. Both strategy/simulation games and role-playing/adventure games provided the most pleasantly relaxing gameplay experiences. Fear was most related to action games and anger to sports games. The data also suggests that a good game is likely to elicit emotions of joy and/or fear. The findings open up directions of further study into the role and nature of different emotions in game playing.

Keywords

Digital games, Gameplay Experience, Emotions.

1. INTRODUCTION

Human experiences in virtual environments and games are made of the same elements that also all other experiences consist of, and thus the gameplay experience can be defined as an ensemble made up of the player's sensations, thoughts, feelings, actions and meaning-making in a gameplay setting. The experience is not a property or a direct cause of certain elements of a game but something that emerges in a unique interaction process between the game and the player.

While it is sometimes claimed that interactive media such as games are able to provide more immersive experiences than traditional media and thus also more powerful emotional experiences, it should not be taken for granted. For example, a touching movie can make the viewer cry, but that kind of reactions are rather rare with digital games. Instead of tears, you might observe drops of sweat on the players' forehead or maybe tears of frustration at the most when the desired goals are not reached. For many contemporary digital games it seems that challenge-based and sensory immersion are more central than imaginative immersion into the worlds, stories, and characters of the games [4].

Nonetheless, emotions being a very central aspect of all human behaviour, it is likely that all kinds of games also provide emotional experiences. The ability to elicit emotional responses may be one of the factors explaining the appeal of digital games. People play games for the experience that can only be achieved by engaging in the gameplay and 'fun' is the ultimate emotional state that they expect to experience as a consequence of playing [8][1]. The schemas that the players have shape their expectations and experience of enjoyment [3], and they may choose games

they play according to their mood [2]. It is possible that people especially seek games that elicit optimal emotional responses or response patterns [11]. Thus, when choosing to play a certain game, one might anticipate it to create certain types of emotional experiences.

The central purpose of emotions is to motivate and guide behaviour. Emotional process begins with a quick evaluation on whether a certain event is meaningful for the person and for her own goals. This evaluation determines whether the valence of the experienced emotion is negative/unpleasant or positive/pleasant [6][9]. Another fundamental attribute of emotions is their arousal that can vary from calm or sleepy to highly aroused. For example anger is a more aroused emotion than sadness. According to the dimensional theory of emotions [12], all emotions can be described with these two dimensions: valence and arousal (Figure 1).

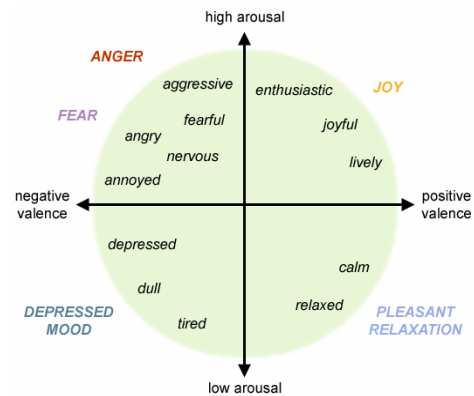


Figure 1. The affect terms used in this study roughly located on the dimensions of valence and arousal.

However, fun and pleasure are complex concepts. Playing games does not always feel fun or joyful: on the contrary, it quite often appears to be stressful and frustrating. Experiences that are usually classed as unpleasant can be experienced as pleasurable in a gameplay context. It has been proposed [7] that the suspense, anxiety and physical arousal elicited by playing are interpreted as positive feelings because players anticipate a resolution and a closure such as winning the game or completing the task. When players manage to cope with a given situation successfully, the arousal is turned into euphoria, and the players experience this kind of cycles of suspense and relief as pleasurable.

In order to specify the understanding about the nature of emotions that games elicit in their players, we examined the emotional experiences derived from playing popular contemporary digital games. The aim of this study was to study what kinds of feelings

players experience while playing digital games, and also to provide starting points for more detailed future game emotion research, supporting a wider variety of models, methodologies and investigations.

2. METHOD

The emotional responses of the players were measured by using similar self-report scales as in [11] where five affective feeling states have been defined to represent the emotional experience: fear, anger, pleasant relaxation, joy, and depressed mood. In this study, we have used identical self-report scales to measure the emotional experiences of the players. The scales consist of 2 or 3 items of affect terms that are each rated on a 7-point scale ranging from 1 (not at all) to 7 (extremely much). The affect terms used were joyful, lively, and enthusiastic (Joy), relaxed and calm (Pleasant relaxation), fearful and nervous (Fear), angry, annoyed, and aggressive (Anger), and depressed, tired, and dull (Depressed mood).

In spring 2005 altogether 203 informants were recruited to complete a questionnaire concerning a game they currently played actively. Since some of them filled in the questionnaire for two different games, the final number of completed questionnaires was 247. The respondents were recruited from among a thousand Finnish participants that had filled in another game-related online questionnaire, where they had been among other things asked to state their current favourite games as a “top-5” list.

The games for this study were chosen on a two-fold basis: on the other hand we had to pick games that were mentioned in several informants’ favourite lists, and on the other hand we tried to cover as wide a range of different kinds of games and game genres as possible. The games and the number of the completed questionnaires are shown in Table 1.

Table 1. The distribution of the completed self-evaluation questionnaires across different digital games.

<i>World of Warcraft</i>	35
<i>Half-Life 2</i>	34
<i>Grand Theft Auto: San Andreas</i>	25
<i>Halo 2</i>	21
<i>Civilization III</i>	20
<i>The Sims 2</i>	20
<i>Flatout</i>	17
<i>Star Wars KOTOR II: Sith Lords</i>	16
<i>Rome: Total War</i>	16
<i>Nethack</i>	14
<i>Pro Evolution Soccer 4</i>	13
<i>Neverwinter Nights</i>	9
<i>NHL 2005</i>	7
TOTAL	247

Almost all of the respondents were male (91 %), *The Sims 2* being the only exception with 55 % of the responses given by females. The age of the respondents varied between 12 and 40 years (mean

21.4 years). The platform used for playing was a PC in 73 % of the cases, but *Halo 2* was played only on Xbox and *Grand Theft Auto: San Andreas* only on PlayStation 2. In the majority of the cases the game was played as a single-player game (75 %), but *World of Warcraft* was played as a multiplayer game on the Internet. In a few cases (4 %) the game was played as a multiplayer game in which the players also shared physical location.

3. RESULTS

In general, the results show that joy and pleasant relaxation dominate the emotional experiences with digital games (Figure 2). Also fear and anger are present in some degree, but depressed feelings are almost non-existent.

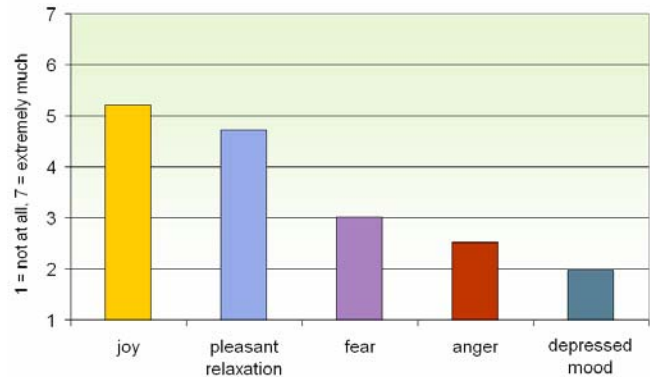


Figure 2. Means of self-reported emotional experiences in digital games (n = 247).

It should be noted that all players evaluated their experiences with a game that they had included on their current top-5 list of digital games. Thus it can be expected that these figures represent mainly positive gameplay experiences where the players have enjoyed the game at least to some degree. And in fact when asked to evaluate how good they think the game is on a 7-point scale, the evaluations the players gave were very positive (mean 6.1 and standard deviation 0.7 on a scale 1 to 7).

Younger players reported more anger ($r = -.22, p < .01$) and fear ($r = -.15, p < .05$) than older players, and the players who had played the game more, reported experiencing more anger ($r = .15, p < .05$) and joy ($r = .14, p < .05$) than more novice players. Men reported somewhat more anger than women, and women more pleasant relaxation than men, but these results are probably due to the fact that there were only a few women in the sample and majority of them evaluated their experience with *The Sims 2*.

It is also of course very interesting to compare emotional experiences with different games and/or game genres to each other. Figure 3 presents the average ratings of reported high arousal emotions (joy, fear, and anger) across the different games, and Figure 4 the averages of low arousal emotions (pleasant relaxation and depressed mood).

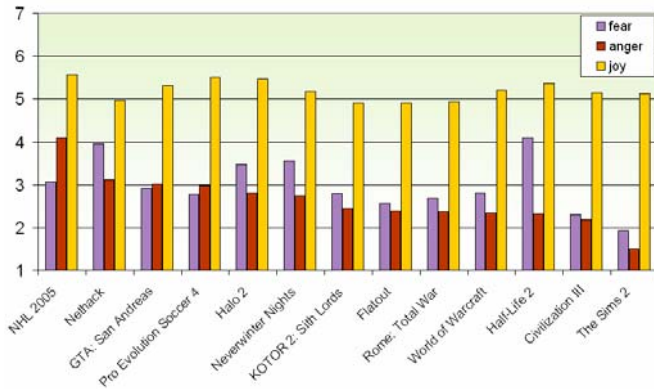


Figure 3. Means of self-reported experiences of fear, anger, and joy in different digital games.

In the self-evaluations, the highest levels of joy were reported with games such as *NHL 2005*, *Pro Evolution Soccer 4*, *Halo 2*, and *Half-Life 2*, whereas least joy was elicited by games such as *Rome: Total War*, *Flatout*, and *Knights of the Old Republic 2*. Games such as *Neverwinter Nights*, *The Sims 2*, and *World of Warcraft* were associated most with pleasant relaxation, and least relaxed feelings provided *NHL 2005*, *Pro Evolution Soccer 4*, and *Nethack*. *Half-Life 2* and *Nethack* provided the most of fearful feelings, and the highest levels of anger were reported with *NHL 2005*, and also with *Nethack*, *GTA: San Andreas*, and *Pro Evolution Soccer 4*. *The Sims 2* and *Civilization III* elicited the least amount of both anger and fear. Depressed feelings were most related to *World of Warcraft*, *Civilization III*, and *Nethack*, and least to *Pro Evolution Soccer 4*, *Halo 2*, *Half-Life 2*, and *The Sims 2*.

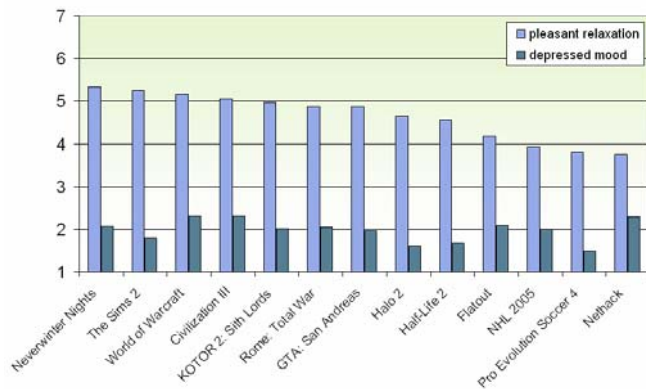


Figure 4. Means of self-reported experiences of pleasant relaxation and depressed mood in different digital games.

In a more general genre level, it can be said that both strategy/simulation games (*Civilization III*, *The Sims 2*, and *Rome: Total War*) and role-playing/adventure games (*World of Warcraft*, *KOTOR II: Sith Lords*, and *Neverwinter Nights*) provided the most pleasantly relaxing gameplay experiences. Fear was most related to action games (*Half-Life 2*, *Nethack*, and *Halo 2*) and anger to sports games (*Pro Evolution Soccer 4* and *NHL 2005*). The overall degree of reported emotional experiences was highest in action games, and lowest in strategy/simulation games and driving games (*Flatout*).

It has been suggested in [11] that a good game is likely to elicit a strong overall emotional response, whether positive or negative. In this study, we found that the evaluation of the overall quality of the game was related to the feelings of joy ($r = .24, p < .001$) and fear ($r = .17, p < .01$) experienced with the game. Furthermore, we have noted previously when doing gameplay experience evaluation on a pervasive mobile game [5], that fear and especially nervousness can also be desirable feelings in a gameplay experience, because they may be linked to the players' engagement with the game and her desire to succeed in it. Also the results of this study support that idea: experience of joy correlated positively with experiences of fear ($r = .26, p < .01$) and anger ($r = .16, p < .05$), and negatively with depressed mood ($r = -.31, p < .01$). Both anger and fear also correlated with each other ($r = .47, p < .01$) and negatively with pleasant relaxation ($r = -.34, p < .01$; $r = -.29, p < .01$). Although in most the games players reported a relative high amount of both positive valence emotions (joy and pleasant relaxation), in some games (*Pro Evolution Soccer 4*, *Halo 2*, *NHL 2005*, *Nethack*, *Halo 2*, *Half-Life 2*, and *Flatout*) the degree of pleasant relaxation was significantly lower than the experience of joy ($p < .05$) and no correlation was found between the two. Thus it can be asked whether relaxed feelings are actually positive or negative in the context of digital game playing. In our previous study also the interviews of test-players [5] suggested that while pleasant relaxation may be related to satisfaction with the game or game state, it does not seem to be a feeling that players especially seek to feel when playing.

4. DISCUSSION

The results of this study provide an interesting starting point for further research on the field of emotional experiences of digital games. In the light of the results obtained here it seems that joy is the dominating feeling at least in positive digital gameplay experiences, and that also moderate amounts of fearfulness and nervousness can relate to positive experiences with digital games. In some games the overall emotional experience can be characterized with one or two dominating feelings. For example in *The Sims 2* it consisted mainly of joy and pleasant relaxation. In some games the pattern is more mixed and includes several types of feelings. For example in action game *Half-Life 2* there was also a notable amount of fear reported, and ice hockey game *NHL 2005* seemed to elicit quite a lot of anger while also being joyful to play. This kind of basic knowledge on the emotional response patterns related to digital gameplay may be useful for example when designing and evaluating new kinds of games. If taken that players especially seek certain kinds of emotional experiences from game playing, it is of great importance what kind of experiences the game promises and delivers.

The main shortcoming of this study is the lack of interviews of the informants. Without that kind of more qualitative data it is impossible to nail down what aspects in a particular game cause particular kinds of feelings, and whether the players consider these feelings positive or negative. We have previously argued [4] that the player's interpretation of a gameplay experience is of great importance regarding the overall experience since it is the point where the player makes sense of her experience and constructs her own interpretation of the game against the backdrop of the various personal and social contexts of her life.

Thus any data that lacks this kind of knowledge is somewhat defective, and we hope to continue the research to that direction.

On the other hand, the data in this study is provided by self-evaluations and thus it reflects also the interpretations of the gameplay experience. For example, when contrasted with psychophysiological measures, the emotional responses described here do not state that the player actually felt that way while playing, but rather that it was his/her interpretation of the overall experience with a particular game. It is possible that playing digital games makes players feel emotionally and physically stimulated, but not necessarily imply high levels of physical arousal [10].

Another topic in need for further research is the relevance of different kinds of emotions in a gameplay setting: are the feelings measured here the most relevant in the context of games? Particularly it seems that pleasant relaxation is a somewhat problematic feeling in this context, and on the other hand it might be useful to analyse the experience of joy or 'fun' in greater detail. Finally, these are mainly the emotions that male players experience when playing, and we do not know whether female players would feel the same way, since it appears to be more difficult to reach them for purposes of this kind of studies.

Currently, academic research is starting to reveal the fundamental character of games and playing them as highly complex and multidimensional phenomena. Our aim in this short paper has been to analyse the emotions associated with playing contemporary digital games, and as such it is part of a wider undertaking in games research. We argue that even if game-related emotions are an important topic deserving attention, they should be situated within the wider contexts of both games and their players.

5. ACKNOWLEDGMENTS

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