Dorothée Hefner¹, Christoph Klimmt¹, and Peter Vorderer²

¹Department of Journalism and Communication Research, Hanover University of Music and Drama, EXPO-Plaza 12, D-30539 Hannover, Germany, hefner@ijk.hmt-hannover.de, Phone +49.511.3100.451, Fax +49.511.3100.400

²VU University Amsterdam, Center for Advanced Media Research Amsterdam (CAMeRA)

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Abstract. In this paper, identification with a game character is discussed as mechanism of computer game enjoyment. Identification is explicated in terms of players' altered self-perception during game play: When identifying with a character or role offered by the game, players change their self-concept by adopting relevant attributes of the character, for instance, they perceive themselves as more courageous, heroic, and powerful during identification with a soldier. Theoretical arguments for the enjoyable quality of such temporary changes of the self-concept are introduced. Computer game interactivity is proposed as important facilitator of strong identification. Subsequently, a pilot experiment with players of "Battlefield 2" supports the assumptions on the relationships between interactivity, identification, and game enjoyment. Implications of the identification concept for research and applications in entertainment computing are discussed.

Keywords: Computer games, video games, enjoyment, identification, experiment

Introduction

The question of why computer games are enjoyable has been of major importance to entertainment computing [e.g. 1]. Video game enjoyment has only recently attracted notable attention in communication and media psychology [e.g. 2], but the number of studies on the fun of playing computer games is growing constantly. The explanation of video game enjoyment is crucial to understand the processes involved game-based human-computer interaction and to model the impact of technical properties of entertainment computing systems on user experience. Theories on (interactive) media entertainment are therefore helpful for research on entertainment computing and provide rich possibilities for interdisciplinary connections between the computer sciences and the social sciences.

In this paper, we introduce one mechanism of video game enjoyment, identification with a game character. Identification could be described as 'feeling like'

or as creating the illusion to 'become' a key person within a computer game's universe; it is argued to be an essential element of game enjoyment. However, the notion of identification is widely used both in everyday and scientific contexts. In entertainment research, a controversy is still going on about users' identification with media characters (e.g., movie heroes or TV show protagonists). Part of the debate is the term and experiential quality of identification. Zillmann argues against identification and proposes that - at least in non-interactive entertainment such as watching television - media users keep a distance between themselves and a character on the screen [3]. In contrast to identification (which could be described scientifically as taking the media character's perspective), [4], people merely observe the actions of the characters, evaluate them from an observer's point of view, and develop empathic (or non-empathic) emotions with her/him. Such emotional bonds then drive entertainment experiences such as suspense (hoping that the liked character will face positive events while fearing that s/he could face negative events [5], [6]. Other lines of research suggest that identification can occur, at least in some people (especially children) and under certain conditions [4, 7,]. However, none of these concepts has been applied to interactive video games, for which fundamentally different circumstances of exposure and user experience have to be expected [2]. The explication of identification with a video game character thus requires some preliminary theoretical work (section 2.) and some media-specific considerations on identification and game enjoyment (3.). We then report findings from a pilot experiment with players of the computer game "Battlefield 2" (4.) and outline future directions for thematic research based on the discussion of our findings (5.).

1. Identification Theory

Most theories on audience responses to media characters rely on the fundamental assumption that media users experience themselves and the media persona as two distinct social entities. Consequently, the theorized psychological responses to characters are grounded on processes of observation, evaluation (e.g., empathy), and (parasocial) dialogue [9, 10]. In spite of the empirical evidence for these concepts of dyadic user-character relationships, a different approach of a non-dyadic user-character relationship seems to be a necessary useful theoretical addition, especially for the understanding of the video game experience.

The proposed explication of identification resorts to conceptualizations of 'the self' advanced in social psychology. Current theories envision the "self" and self-concept not anymore as a stable construct but rather as state-sensitive and malleable depending upon the situation [11, 12]. People are able to integrate certain requirements not only into their actual behavior but also into their self-concept [13].

These advances in theories on the self-concept hold implications for the use of interactive media: Following Cohen's definition of identification, [4], we propose that for the moment of media exposure, users adopt (parts of) the identity of the target character. They perceive or imagine themselves to actually be the media character and thus alter their self-concept 'into the direction of' the media character. Identification

with a media character is thus construed as a temporary alteration of media users' self-perception by inclusion of perceived properties of the target media character.

One argument for the enjoyable quality of such changes to users' self-concept is the recognition of escapism as important motivation to use entertainment [14, 15]. It is plausible that the desire to temporarily forget (or 'leave') one's real-life problems would be fulfilled more effectively if a viewer would not only enjoy the observation of media characters, but if s/he would experience to actually become a different person for the moment [16]. In respect to computer game play, game interactivity is considered as another important argument for the viability of the identification concept. This is because computer games present characters in similar, but also somewhat different modes as television and film do. Computer games do not only display mediated environments in which characters act (independently), they also enable and invite users to act by themselves in the environment and to become an integral part of the mediated world [17].

Most contemporary computer games include voluminous narrative elements that assign a certain role to players (Klimmt, 2003), such as the role of a sportsman, a military commander, or an ad-venture heroine such as 'Lara Croft'TM. The way players 'fill in' the role offered to them shapes the properties and course of the game, which implies that players are not mere observers of the media environment (and of the media characters in it) as they are in television settings, but that they actively participate in the story unfolding on screen. Through interactivity, then, video games override the distance between media users and media characters: Players either control directly one specific character or take on a social role represented in the game world, [18]. In both cases, players do not observe autonomous social entities performing on screen, but they make characters perform or actually perform themselves. McDonald and Kim report that young video game players perceive no distance at all to their game protagonists, but "identify quite closely" with them [19].

Based on these considerations, we assume that identification processes within an interactive medium as video games differ from the empathy-driven kind of identification that is observable while watching a movie. The proposed monadic (i.e., non-dyadic) type of identification should accordingly apply particularly to interactive entertainment such as playing computer games.

2. Identification and Game Enjoyment

The described process of "monadic" identification is proposed to contribute to the fun of playing a computer game that is distinct from the fun entertainment experience of, for instance, watching an action movie on TV. Drawing back to escapism research, the understanding of identification as temporary change of media users' self-perception is assumed to frequently serve the desire to evade troublesome real-life circumstances [14]. Such problems frequently arise from people's recognition of themselves being different from the self they idealize or strive for (self-discrepancy, [20].

The enjoyment of identification with a game character can thus be grounded on the reduction of self-discrepancy for the time of media exposure. A media user who

perceives himself as less courageous than he actually wants to be (high selfdiscrepancy on the dimension of courage) could reduce his self-discrepancy by identifying with a courageous game character such as James Bond by adopting the salient properties of him. For the period of identification with James Bond, the selfperception of the player is altered towards the characteristics of Bond, including an increased level of courage. Identification with James Bond thus leads to a higher selfascribed value of courage, which consequently reduces or even eliminates the selfdiscrepancy (on this dimension). Such reductions or complete resolutions of selfdiscrepancies are accompanied by positive experiences, which would then become integral part of the overall game enjoyment.

However, interactivity might only be a necessary but not sufficient condition for identification. The role, the character that is "allowing" identification furthermore has to offer some appeal to the player. For example, a person that nauseates all war and battle aesthetics would probably not identify easily with the role of a soldier as it is offered by most first person shooter games. In contrast, a player who is attracted to war sceneries, conflict, and military stories, may find the same offer to identify with a soldier in a computer game most appealing and enjoyable, [18]. Thus the attractiveness and the personal desirability of the role that is offered to be occupied during game play must be given to a certain degree in order to facilitate monadic identification.

Hoffner and Buchanan refer to this phenomenon as "wishful identification", which is considered as constitutive for the playing motivation in young adults [7]. Jansz provides with his work about the emotional appeal of violent video games to adolescent males one reason why violent, strong, and hyper-masculine characters are attractive for wishful identification [21]. He compares a game playing session with an experiment in a private laboratory where the gamers can experience and practice certain roles and emotions related to these roles. Violent characters give especially male adolescents the possibility to experience a hyper-masculine role. "They can safely embrace the game heroes' violent performance of masculine identity without fearing moral reproach or ridicule by partners or peers." ([14], pp. 231-232).

Based on those considerations we assume that a given video game player is more willing to identify with a game protagonist if the offered role is attractive to him/her. For young males, this could especially be the case for (hyper-)masculine, dominant, and violent characters. To the extent that the vicarious experience of 'being' a game character (within the game world) is appealing to the player, identification with that character will turn into a major dimension of computer game enjoyment.

In addition to the personal appeal of the character-role, the dimension of performance and competence is relevant to the identification experience. Deci and Ryan declare "competence" one of the three fundamental needs of human being (alongside "relatedness" and "autonomy, [22]). Computer games may serve as an ideal area to experience this feeling of competence since their interactivity allows action, solving problems, etc. and thus the experience of self-efficacy [18, 23, 24]. If a player is attracted to the 'role offer' of a character but does not feel to fulfill the role adequately by means of accomplishing the missions attached to the role, identification with the character would probably not be enjoyable (the perception of 'being a bad soldier' is not attractive for players to like the idea of being a soldier, as it would lower their temporary self-esteem [25]), so identification is likely to decrease. In

contrast, a good performance and the according experience of competence will prompt the player to occupy the role continuously. In other words: Players should tend to only identify with given characters if the identification will not harm their self but rather raise their self-esteem. In sum, a person playing a computer game is argued to find identification with a game protagonist (or the offered player role such as commander-in-chief) more enjoyable if the offered role is appealing to her/him and if s/he "does a good job" in carrying out the character's actions.

3. A Pilot Study on Identification with Computer Game Characters

3.1 Research Design

An experiment was conducted to explore the theorized relevance of identification with a game character for video game enjoyment. Specifically, the study was designed to answer the following research questions:

- Does game interactivity facilitate identification with the game character (see section 1.)?

- Does identification with the game character contribute to overall game enjoyment (section 2)?

- Does perceived competence facilitate identification with the game character (section 2)?

The research questions required a systematic comparison of interactive game play and non-interactive, passive game observation. Thus, the experiment compared participants who either played a game or only watched a recorded sequence of the same game. Identification with the game character was assumed to be much stronger for those participants actually playing by themselves. Moreover, a positive statistical correlation between the strength of identification and overall game enjoyment was hypothesized in respect to the second research question.

3.2 Participants and Procedure

30 voluntary male university students aged between 20 and 30 years (M = 24.37, SD = 2.66) took part in the experiment. 20 of them had some experience with the genre of the game used in the experiment, first-person-shooters (FPS), 9 of them had little experience, only one participant had never player FPS before.

Participants were randomly assigned to either play one level of "Battlefield 2" (Electronic Arts, Single-Player-Mode) or watch a video recording from the very same game level. A 32- inch LCD-TV was used as display for participants in both groups. After six minutes, the game session was interrupted or the video presentation was stopped in the non-interactive group, respectively. Participants were then asked to fill out a questionnaire regarding their enjoyment experience, state of presence during the

game, current self-concept and identification with the game character. Moreover, respondents who had played the game were asked about their impression of competence during the game.

Identification with the game character was assessed with 8 items like "I have forgotten myself during the game", "I had almost the feeling of being the game character", and "the goals of the character became my own goals". Responses were measured on a five-point scale ranging from "I do not agree at all" to "I fully agree". The reliability of the scale was good (Cronbach's Alpha = .84), so a mean-index was used for further analyses. To assess the theorized quality of identification (i.e., changes in players' self-concept through adoption of game character's properties) in more detail, participants were also asked to describe themselves by rating the extent to which some verbal attributes were true for them. Among these rated attributes were some concepts immediately relevant to the soldier's role offered for identification by "Battlefield 2", namely "masculine" and "powerful". It was expected that stronger agreement to these attributes as valid self-descriptions would be correlated positively to video game enjoyment.

3.3 Results

An analysis of variance was computed to test the effect of interactivity on perceived identification. The results support our assumptions: Participants who actually played the game displayed a significantly higher mean score of identification (M = 2.72) than the participants assigned to the group who had only watched a recorded sequence from the game (M = 2.1; F(1/28) = 5.43; p < .05; $\eta^2 = .16$). Thus, interactivity was demonstrated to facilitate identification with the game character.

Furthermore, the second research question addressed the contribution of identification with the character to game enjoyment. To test this assumption, the correlation between the indices of identification and enjoyment was computed. In line with the theoretical assumption, identification correlated strongly with enjoyment (Pearson's r = .57; p < .01). Similar, although non-significant results were obtained for the relevance of game-related self-descriptions for identification (in the group who had played actively, n = 15): The agreement to "masculine" (r = .61, p < .05) and "powerful" (r = .58, p < .05) as valid self-descriptions also correlated with the index of identification. Thus, the extent to which players perceived key attributes of the game character valid for themselves was substantially correlated with identification.

Finally, we assumed that the perceived competence while playing the game was an important factor for identification. The correlation between the item "I felt competent during playing" and the identification index was significant in the player group (r = .54, p < .05), which supports the assumption that good performance when occupying a character role is crucial for the identification experience.

4. Discussion

The present pilot study has shed some light on identification processes. Based on theoretical assumptions, the role of interactivity on identification experience and the

role of identification for game enjoyment were demonstrated in the experiment: Results confirm the interplay of interactive game use, identification and enjoyment. People playing the game and thus having the possibility to act efficiently within the character role identify with the game protagonist to a much larger extent than people do who could not interact with the game. The interactive use of the combat game "Battlefield 2" thus allowed for more intense, 'authentic' vicarious or simulated experiences of 'being' a soldier in a modern combat scenario, while such experiences were less accessible or less intensive in those participants who had only watched a recording of a game play session. Such identification with the soldier role was furthermore associated with a higher degree of enjoyment which indicates that identification is an important cornerstone for understanding game enjoyment. The findings on the self-descriptors "masculine" and "dominant", finally, suggest that the male players that had been invited to this study tend to find the role of a warrior attractive and thus engaged in identification with this role. This is in line with Jansz's (2005) theoretical argumentation of violent video gaming as experimentation environment for evolving (adolescent) masculinity. In sum, the pilot study supports the theoretical framework on narrative game enjoyment and provides empirical ground for the construal of playing video games as a simulated experience that allows to escape one's real-life environment and social contexts towards more interesting, attractive, suspenseful and/or otherwise rewarding worlds. Identification with the role offered by the game – be it a warrior, a corporate manager, a professional golfer or a gangster - thus opens the horizons for new experiences closely connected to player's self. By adopting those attributes of the game character that one finds attractive, players can perceive themselves as being more like they want to be. Identification is thus a path to temporary reduction of self-discrepancy [20], because it allows players to see themselves closer to their idealized identity. For (young) male players, identification with a soldier is likely to fulfill this function of coming close to one's ideal self (i.e., to feel more masculine, courageous, dominant and so on); for other player groups (e.g., girls), alternative characters may be more favorable in terms of identification-based reduction of self-discrepancy [23].

5. Conclusion

The present paper has investigated one component of computer game enjoyment, identification with the game character. Both theoretical argumentation and empirical pilot findings support the assumption that playing computer games is fun, (partly) because it allows to enter imagined worlds beyond one's real-life experiences and to perceive oneself in the way one wants to be. In this sense, the term "wishful identification" is most suitable to describe this facet of computer game enjoyment [26].

From the perspective of entertainment computing, our findings have several interesting implications. First, the concept of identification provides a theoretical foundation for the explanation why sophisticated interaction possibilities, intelligent agents and rich audiovisual representations of game worlds are directly linked to computer game enjoyment. In entertainment computing, these technical properties of

computer games are constantly developed further and object of conceptual debate [27]. More advanced game technology can be argued to facilitate more intensive forms of identification with the game protagonist, for instance, by creating a more convincing spatial and social environment within which the player can perform the actions attached to his/her role ("Presence", [28]). Intelligent agents that interact with the player (or player character) in 'authentic ways' also support the capacity of the game to evoke identification, because the 'offer' for identification made to the player is more complete and more convincing if the player role is embedded in 'natural' social interaction within the game world [29]. In this sense, many more technical properties of advanced computer games could be linked to game enjoyment via the identification mechanism, and it remains a task for future research to investigate these connections systematically.

Second, the findings support the importance of narrative elements for successful computer games. A major part of the fun of playing comes out of identification processes that root back in the narrative framework of the game. If only a rudimentary background plot is available, the character or role that players could identify with may remain underdeveloped, which would result in lowered game enjoyment. Thus, the inclusion of rich narrative content is both a challenge for game development, but also an important advantage for the entertainment experience, [30].

Third, the entertainment valued of computer games can be improved if the games achieve to evoke the perception in players that they can occupy the role they identify with successfully. While it may be interesting to a given player to identify with the role of a corporate manager, our findings suggest that it is even more appealing to identify with a good manager, that is, to perform well within the role framework of the game. The importance of good performance in games has been highlighted in the game enjoyment literature, and the present paper links this factor of enjoyment to the issue of identification. So interactivity and game narrative should be intertwined in a way that enables simulated experiences of 'doing the character's job well' in order to maximize player enjoyment.

Finally, the importance of identification processes to game enjoyment holds implications for designing computer games that are appealing to different target groups. Different players will find different roles to identify with interesting and enjoyable. For instance, the gender gap in computer game involvement can be explained by the simple fact that most computer games today offer roles to identify with that are more interesting for boys and men than for girls and women [31]. Computer games for specific player segments will have to provide possibilities to identify with roles or characters whose properties resonate with the preferences and wishes of these players. The concept of identification may be helpful in thinking about and testing out game concepts that are intended to maximize enjoyment for such specified player groups.

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