Explaining the enjoyment of playing video games: The role of competition

3 authors, including:

Peter Vorderer
Universität Mannheim
144 PUBLICATIONS   **3,583** CITATIONS

SEE PROFILE

Tilo Hartmann
Vrije Universiteit Amsterdam
107 PUBLICATIONS   **3,023** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

POPC - Permanently online, permanently connected   View project

Experience and perception of video games   View project

EXPLAINING THE ENJOYMENT OF PLAYING VIDEO GAMES: THE ROLE OF COMPETITION

Peter Vorderer
Annenberg School for Communication
University of Southern California

Tilo Hartmann
Christoph Klimmt
Department of Journalism and Communication Research
Hannover University of Music and Drama, Hannover, Germany

The tremendous and still growing popularity of computer and video games has inspired Communication Researchers and Media Psychologists to investigate the factors of the enjoyment experienced by the players. Apparently, the games' interactivity allows for a continuous stream of challenging and competitive situations that have to be resolved by the players. Competition is therefore regarded a key element of the explanation of players' entertainment experience. Subsequent to a theoretical explication, empirical evidence for the role of competition in the playing process and the impact of competitiveness for selective exposure to computer games is reported from a field experiment (N = 349) and an online survey study (N = 795).

Keywords: Computer Games, Video Games, Enjoyment, Entertainment, Competition

1. Introduction

Computer and video games have conquered uncounted children's rooms across North America, Europe, and Asia [1]. The game technology - both hardware and software - is making progress rapidly. New platforms such as Microsoft's X-Box allow for thrilling sensations in terms of visual and audio presentation. The latest game software takes advantage of technical improvements and offers vivid imagery that comes (comparatively) close to reality.

Facing the tremendous popularity of computer games, Communication Researchers and Media Psychologists have begun to investigate the factors that foster the entertainment experience of playing these games [2]. Most of the explanations that have been suggested refer to the games' *interactivity* [3]. Computer and video games are the 'most' interactive among the so called "New Media", and the various opportunities to participate actively in the ongoing events is certainly the characteristic that makes such games distinct from other entertainment offerings (like movies or novels). Therefore, it appears to be reasonable to wonder why interactivity has the potential of fascinating or 'immersing' so many people so frequently and for so long durations.

This article elaborates some key links between interactivity and enjoyment which are related to *competition* [4]. Specifically, we will address (1) the typical characteristics of the playing process and the function of competitive elements, and (2) the players' disposition towards social competition which may foster the attractiveness of video games as a leisure activity. We will present empirical data concerning both aspects of competition and their link to the entertainment experience derived from playing video games.

2. Playing Computer Games: A Sequence of competitive Situations

Klimmt and Vorderer ([5], see also [6]) have suggested to model the process of playing a video game as a sequence of situations each of which features

- certain possibilities to act,
- a specific necessity to act,
- the player's attempt to resolve the necessity to act by applying (some of) the possibilities to act,
- a result which influences the enjoyment felt by the player and the configuration of the subsequent situation.

Imagine, for example, a 3D fighting game like "Quake" (id Software). The player's character is armed with various guns and enters an unknown territory. A player who is confronted with such a situation can select between different possibilities to act, for example, s/he may move his/her character at various speeds in numerous directions, or s/he can try out the effects the different guns have on the objects located in the game environment. Such exploratory behavior is enjoyable, as it is similar to the playful actions children perform to try out what they can do and cannot do with an object.
In the exploratory actions during a game situation, competition is not existent. However, imagine that suddenly a horde of evil monsters appears, attempting to kill the player's character with their deadly claws. A competitive element has been added to the situation: Now there is a necessity to become active. The player has to do something to cope with the threat which has been imposed on her/him by the game program.
Facing the two key components of the situation, i.e. the available possibilities to act and the arising necessity to act, the player will try to resolve the task by performing the appropriate and effective actions. The game will will deliver a visible result of this action: Either the player succeeds (that is, kill all the monsters before they eliminate her/his character), or the competition is lost (the monsters kill or injure the player's character).
The result affects both the the emotional state of the player and the subsequent game situation: A successful completion of the situation will lead to positive affect which is connected to high arousal (so-called excitation transfer, see [7]), especially if the competitive component of the situation was "strong" (e. g., a big monster was defeated). This emotional state leads to an euphoric experience of enjoyment and leads to an increase of the motivation to continue the playing process and to face the next (competitive) game situation. However, a dissatisfactory outcome will elicit adverse emotions (anger or frustration). This may lead to an even stronger motivation to continue playing in order to solve the task in the next run [8], but will diminish the entertainment experience. Therefore, playing video games is expected to be enjoyable only if there is a sufficient number of successfully completed, competitive situations.
Since the game software responds interactively to the players' actions, the subsequent game situation is affected by the results of these actions. In the fighting game example mentioned above, the players' action may remove all dangers from the vicinity, which would establish a subsequent situation that allows for exploratory actions, but does not feature competitive elements (such as monsters). Further exploration may then lead to the next situation that can again contain competitive components.
In sum, competitive elements are considered the most important determinant of the enjoyment arising from playing computer games. Although the simple exploration of the available possibilities to act may also be entertaining, the suspenseful coping with

challenges such as tasks, dangers, and threats that may lead to highly enjoyable success appears to be the more important source of entertainment during the playing process (see also [2]). However, engagement in competitive situations holds the risk to lose, which would cause negative emotions and reduce the enjoyment. Playing computer games is therefore expected to be fun only if a sufficient portion of the competitive game situations is mastered by the player. For this reason, many games allow for adjustments of difficulty levels in order to regulate the probability of success and failure in competitive situations according to the player's skill.

3. Competition and the Playing Process: A Field Experiment

In order to test the explicated assumptions about the role of *competitive elements* for the enjoyment of playing computer games, a field experiment was conducted. The following hypotheses were derived from the above considerations about the playing process:

(1) Video game players expect a given game situation to be more enjoyable if they are offered many different possibilities to act than if they are offered only a few such possibilities.
(2) Video game players expect a given game situation to be more enjoyable if they are confronted with a competitive element than if such an element is missing in the situation.

The second hypothesis specifically targets the importance of competitive elements. According to these assumptions, a given game situation would be most enjoyable if it features both many possibilities to act and a strong necessity to act (i. e., a challenging/competitive element).

To test the hypotheses experimentally [6], a situation from a „Tomb Raider" game was depicted verbally: „Lara Croft is standing in the middle of a hall". This situation was manipulated with respect to the number of possibilities to act and the necessity to act. In one version, Lara Croft was reported to have numerous weapons and tools (condition: many possibilities to act), in the other version, she was described as having only very few weapons (condition: little possibilities to act). The versions that featured a high necessity to act included some suddenly attacking monsters, whereas in the no-necessity-to-act condition, monsters were not mentioned. This way, a 2 (possibilities to act) x 2 (necessity to act) design was implemented using a verbal description of a game situation. The participants were confronted with one of the four different versions and rated the enjoyment they would feel during exposure to the situation. To rate the entertainment experience, a ten-item scale (with minimum value „1" maximum value „5") was used [6]. One example item was „It would be very enjoyable to play this game situation". The scale turned out to be sufficiently reliable (Cronbach's Alpha = .92).

349 Tomb Raider players recruited from the customer database of the German publisher of these games participated in the study. They replied either to a printed or an identical online quesstionnaire and were randomly assigned to one of the four experimental conditions. Average ratings of expected enjoyment differed substantially between the depicted versions of the game situation (see figure 1). The mean differences matched the formulated hypotheses: The situation was expected to be more enjoyable if it included more possibilities to act and a necessity to act. Interestingly, the version that featured only a few possibilities to act and no necessity to act was

rated to be especially boring. Thus, the importance of competitive elements for the enjoyment of playing computer games could be empirically demonstrated. However, future studies should attempt to replicate these findings by using real computer games instead of verbal game descriptions only.
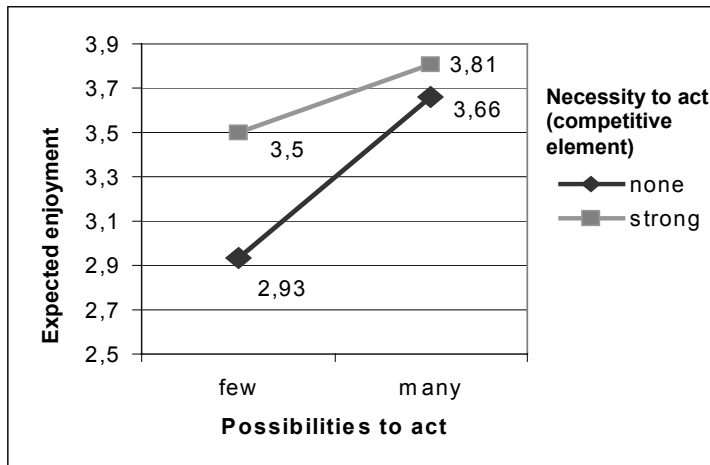

Figure 1.   Influence of the presence of a competitive element and of number of possibilities to act on expected enjoyment (rated on a ten-item scale ranging from 1 (low enjoyment) to 5 (very intense enjoyment) of playing a verbally depicted game situation (N = 349; see [6] for details).

4. Preference for (Social) Competition and the Motivation to play Video Games

Up to this point, competition in computer-games has been introduced as the challenge to master the given tasks and hindrances of the playing situation (competitive elements). However, competition in many computer-games may also arise from a *social* situation, in which the user competes against an opponent that is controlled by the computer (c.f. [9]) or another user [10]. To distinguish this specific kind of competition in computer-games from the assumptions made above, we refer to it as *social competition*. Social competition can be regarded as a process which develops by competitive actions performed by individuals or social entities in order to maintain their own interests to the disadvantage of others. Each social entity monitors the process by ongoing evaluations of the „status quo". These evaluations include the perception about how the current individual's position is in contrast to the positions of the others and what tendency is expected for the further process of the competition. Thus, the evaluations consist of different *social comparisons* [11] related to the current situation. In accordance to the assumptions mentioned above, every evaluation likely leads to an *emotional state* (enjoyment, stress, frustration) that differs in accordance to how the „status quo" is perceived (e.g., an individual who perceives herself/himself in the leading position will feel a positive mood). As an outcome of the overall competitive process it is likely that the individual's *self-esteem*, as well as the *individual's mood* have changed in accordance to the ongoing evaluations and social comparisons (see [12]).

Computer games typically have a clear body of rules and a very concisely predefined goal, thus leading to a less ambivalent competitive structure, compared to many other social situations. This circumstance makes the necessity to act in order to maximize the own benefits in relation to the benefits received by others especially apparent. For we think that also challenging a computer-controlled opponent evokes some sort of

social competition, both, multiplayer-games as well as single-player games that offer the possibility to compete against an opponent, should be capable to establish social-competitive processes. In sum, many computer and video games can be regarded as media offerings that effectively induce situations of social competition [4], which can be instrumentalized by the user in order to maintain his or her self-esteem [13] and to strive for positive moods [8].

As the participation in challenging and competitive situations appears to be an important reason for the enjoyment felt by computer game players, it is a plausible assumption that some individuals may experience more enjoyment from this activity than others, because there are individual differences with respect to the preference for engagement in competitive situations. Consequently, one can assume that people who are more comfortable with competitive situations should have a stronger preference to seek such playing processes than people who are not interested in performance comparisons.

Taking the psychological consequences of competitive situations into account, both the desire for maintaining or enhancing one's own self-esteem [14] and the search for positive moods [15] should be regarded as general factors that *motivate* people to seek for social competition. However, not all individuals try to achieve a better mood and self-esteem by entering social competitive processes. On a general level, people can be distinguished with regard to their social value orientation [16], which determines what kind of results they prefer to produce through their actions. These results can be differentiated in *competitive, individualistic* and *cooperative* outcomes. An individualistic orientation reflects the general tendency to maximize one's own benefits (ego = max). Cooperative orientation means to care about both one's own as well as the benefits of the other (ego plus other = max). A competitive orientation, finally, reflects the general tendency to maximize the own benefits in relation to the benefits obtained by others (ego minus other = max). It is likely that individuals who hold such a competitive disposition will seek actively for competitive computer-games and will be strongly motivated to challenge and surpass others ("Wetteifermotiv"; see [17]). However, they should only select competitive games as long as they are also confident to master the challenge of the game situation and to reach the desired outcomes. In other words, the individuals should perceive themselves as being *capable* to manage the competitive situation. The capability should primarily differ with regard to the perceived computer-game-specific self-efficacy (see [18], [19]).

In sum, four intertwined factors, two on a general level and two on a computer-game-specific level, can be identified to explain an individual's readiness to select computer games as competitive situations. Factors on a general level are (1) the desire to maintain or enhance the own self-esteem and mood as a general motivation and (2) the competitiveness of the social value disposition as a general disposition. On the computer-game-specific level, (3) the motivation to challenge and surpass other opponents, as well as (4) a computer-game-related self-efficacy can be assumed as determinants of the selection and enjoyment of competitive computer games. Moreover, it is likely that the factors are correlated. A stronger general need for a better self-esteem and for positive moods and a stronger competitiveness of the social value orientation should lead to a more intense motivation to challenge opponents in a computer-game. In turn, if such a motivation is accompanied by proper capabilities (i.e. a high self-efficacy), the user's likelihood to select competitive computer-games should be enhanced.

5. Competitiveness and Selective Exposure to Computer Games: An Online Survey

In order to partially test the explicated assumptions about factors determining the selection of competitive computer-games, the following hypotheses were derived from the considerations above:

(1) Individuals holding a general competitive social value orientation have a higher computer-game-specific motivation to challenge a game antagonist ("Wetteifermotiv") than individuals holding an individual or prosocial orientation.

(2) The higher an individual's computer-game-specific motivation to challenge a game antagonist ("Wetteifermotiv"), the more likely his selection of competitive computer games.

(3) The higher an individual's computer-game-specific self-efficacy, the more likely his selection of competitive computer games.

To test the hypotheses empirically, an online survey was conducted. The individual's *social value orientation* was measured by applying a series of "decomposed games" (see [20], [21],[22]), that have been frequently used in studies of social psychology (e.g. for the research on social dilemmatas). In the current study, a nine-item decomposed game measure of social orientation was used. Subjects had to make choices among combinations of outcomes for themselves and for another "imaginative and unknown" person. Each item included a competitive, an individualistic, and a prosocial choice. Participants were classified when they made 6 or more consistent choices.

The individual's *computer-game-specific motivation to challenge an opponent* ("Wetteifermotiv") was measured by adapting a related "sport orientation questionnaire" from the Psychology of Sports that also includes a factor measuring the motivation to compete [23]. The 5-point-scale (with minimum value „1" maximum value „5") consists of 13 items, such like "I like to compete against others in computer-games". The scale turned out to be sufficiently reliable (*Cronbach's Alpha* = .93). and was compiled into a mean- index ($M = 3.44$; $SD = .85$).

Computer-game-specific self-efficacy was measured by applying Schwarzer and Jerusalem's [19] Generalized Self-Efficacy Scale to the specific area of computer games. Users could indicate their approval on a 5-point-scale (with minimum value „1" maximum value „5") covering 10 items such like " If someone opposes me in a computer-game, I can find the means and ways to get what I want". The scale turned out to be sufficiently reliable (*Cronbach's Alpha* = .89). Again, a mean-index was computed on the basis of the items ($M = 3.75$; $SD = .66$).

Three different measures of the *likelihood of the selection of (competitive) computer-games* were applied. First, users were asked about how many days a week and how many hours a day they played computer-games. Both statements were combined in a multiplicative index that mirrors the individual's general amount of computer-game use. The index ranged from 1 (minimum) to 70 (maximum; $M = 15.61$; $SD = 11.07$). Second, the frequency of use of 8 different genres of computer-games were rated by the subjects on a 5-point-scale (with minimum value „1" maximum value „5"). The classification was taken from a major German computer-game magazines and included genres such like "battlesome real-time-strategy games", "ego-shooters" or "action-adventures". While these aspects addressed rather the frequency of the individual's computer-game use, a third question was added to especially test the user's preference of *competitive* games. Thus, subjects were asked to evaluate their currently most

favourite computer-game in terms of its competitive nature. On a 5-point-scale (with minimum value „1" maximum value „5") 5 items such like "The scope of my favourite game is to challenge other opponents" were rated. The scale turned out to be sufficiently reliable (*Cronbach's Alpha* = .84). Again, the items were computed into a mean-index (M = 3.75; SD = 1.15).

Overall, 795 subjects participated in the online survey study. On the basis of the calculations addressed above, 23,6% (n = 188) turned out to hold a competitive social value disposition, whereas 22,4% (n = 178) held a individualistic and 38,2% (n = 304) a prosocial disposition (15,7%; n = 125 could not be assigned to one particular disposition).

Results of a analysis of variance show that hypothesis 1 could not be supported by the data. Individuals holding a competitive general disposition barely showed a stronger computer-game-specific motivation to challenge others (M = 3.51; SD = .85) than individuals holding an individualistic (M = 3.47; SD = .8) or a prosocial disposition (M = 3.34; SD = .87). The difference was not significant ($F(2,123)$ = 2.55; *ns*).

In accordance to the three aspects of game selection, hypotheses 2 and 3 were tested in three different analyses. First, a regression analysis showed that both the user's motivation to compete (b_{stand} = .21; p < .01) as well as his computer-game-specific self-efficacy (b_{stand} = .10; p < .01) turned out to be significant predictors of the *general amount* of computer-game use ($F(2,213)$ = 25.77; p < .01). However, the model only explained about 6,5% of the total variance. Second, multiple correlations between the subjects' motivation to compete and self-efficacy on the one side, and the use of *specific genres of computer-games* on the other side were examined (see table 1).

Frequency of use of genre…	Motivation to compete	Self-efficacy
Battlesome real-time-strategy (e.g. Age of Mythology)	.13**	.10**
Peaceful build-up (e.g. SIMS)		
Role-playing (e.g. Baldur's Gate)		
Ego-Shooter (e.g. Half-Life)	.31**	.16**
Action-Adventure (e.g. Mafia)	.10**	.18**
Adventure (e.g. Monkey Island)	-.09*	
Sport (e.g. Fifa-Soccer 2002)		-.08*
Simulation (e.g. Comanche 4)		

Table 1.   Pearson's correlations between the user's motivation to compete, respectively   his computer-game–related self-efficacy, and his frequency of specific genre use (* significant at p <.05; ** significant at p < .01).

In line with hypotheses 2 and 3, the results show that the user's motivation to compete and his self-efficacy are primarily correlated with the use of genres that likely include competitive games, such like "battlesome real-time-strategy" and "ego-shooters". However, the found correlations are rather weak. As a third test of hypotheses 2 and 3, a regression analysis supports the assumption that the competitive nature of the user's currently most favourite computer-game is determined by the users' motivation to compete, and their self-efficacy ($F(2,719)$ = 46.79; p < .01). However, the results show that only the user's motivation to compete significantly predicts the competitiveness of the favourite computer-game (b_{stand} = .35; p < .01). The model explains about 11,3% of the total variance.

In sum, the empirical results display some support for hypotheses 2 and 3, although statistically, the effects are rather weak. In all of the three analyses the motivation to

compete turned out to be a stronger predictor of the selection of (competitive) computer games than the user's self-efficacy.

6. Conclusion: Perspectives of Interdisciplinary Research on Video Game Enjoyment

This article has elaborated the importance of competitive elements as determinant of enjoyment in playing computer games and factors that foster the selection of computer-games as offers of social competition. On a basic level, competitive elements can be incorporated by such games because of their interactivity, which allows for active engagement of the user in the playing process and for immediate feedback on user's actions. On a broader level, the user's feeling to play against an opponent likely evokes a social-competitive situation that should be especially capable to engage and to involve the user. Therefore, it appears reasonable to regard competition as a major factor in the explanation of video game enjoyment and of the preference for such games.

However, some past research has addressed (and future research should address) other factors beyond competition that may also be of some or equal importance. Malone [2] has suggested three video game characteristics that affect the pleasure derived from playing: challenge (which is closely connected to competition that we have discussed in detail here), fantasy and curiosity. While the engaging effect of curiosity (that is, the reaction to unexpected game events) is obvious, the fantasy dimension may demand further elaboration. Vorderer [24] has pointed out that the psychology of play may be a useful explanatory framework for research on media entertainment in general, but of course, there are good reasons why this framework should be specifically useful concerning video game play. Psychological considerations on the functions of play for human development [25] may therefore enrich Malone´s conceptualisation of the fantasy dimension.

Research in communication and psychology has neglected computer and video games, the experiences of their users as well as their effects on individuals and society. Especially the beneficial effects of playing as well as the questions why these games are so entertaining and who is especially attracted to them have so far been studied very rarely. Moreover, the developers' perspective has virtually been ignored by communication researchers and psychologists. An interdisciplinary dialogue between engineers, developers, and social scientists on the enjoyment derived from playing video games may therefore inspire future research that allows for better insights into this leisure activity that has become so appealing to whole generations in numerous countries.

REFERENCES

[1] Interactive Digital Software Association (2001). *Quick facts about video game consoles and software* (Online). Retrieved from http://www.idsa.com/pressroom.html.
[2] Malone, T. W. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science, 4*, 333-369.
[3] Vorderer, P. (2000). Interactive entertainment and beyond. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 21-36). Mahwah, NJ: Lawrence Erlbaum Associates.
[4] Williams, R. B. & Clippinger, C. A. (2002). Aggression, competition and computer games: Computer and human opponents. *Computers in Human Behavior, 18*, 495-506.

[5] Klimmt, C. & Vorderer, P. (2000, July). *Disclosing the secret behind computer games*. Presentation at the 7th Conference of the International Society for the Empirical Study of Literature(IGEL), 31.07. – 04.08. 2000, Toronto.

[6] Klimmt, C. (2001). Computer-Spiel: Interaktive Unterhaltungsangebote als Synthese aus Medium und Spielzeug [Computer-Games: Understanding interactive entertainment as combination of media and toys]. *Zeitschrift für Medienspychologie [The Journal of Media Psychology], 13*(1), 22-32.

[7] Zillmann, D. (1996). Sequential dependencies in emotional experience and behavior. In R. D. Kavanaugh, B. Zimmerberg, & S. Fein (Eds.), *Emotion: Interdisciplinary perspectives* (pp. 243-272). Mahwah, NJ: Lawrence Erlbaum Associates.

[8] Grodal, T. (2000). Video games and the pleasures of control. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 197-212). Mahwah, NJ: Lawrence Erlbaum Associates.

[9] Moon, Y., & Nass, C. (1996). How „Real" are Computer Personalities? Psychological Responses to Personality Types in Human-Computer Interaction. *Communication Research, 23*(6), 651-674.

[10] Ho-Ching, W., Inkpen, K. M. & Mason, K. (2000). Playing Together: a Taxonomy of Multiplayer Video Games. *Extended Abstract and Poster presented at ASI 2000 (Vancouver, BC),* GI 2000 (Montreal QC).

[11] Gilbert, D. T., Giesler, B. R. & Morris, K. A. (1995). When comparisons arise. *Journal of Personality and Social Psychology, 69*(2), 227-236.

[12] Tesser, A. (1988). Towards a self-evaluation maintenance model of social behavior. In L. Berkowitz (Eds.), *Advances in experimental social psychology, Vol. 21*. Academic Press : San Diego.

[13] Colwell, J., Grady, C. & Rhaiti, S. (1995). Computer Games, Self-Esteem and Gratification of Needs in Adolescents, *Journal of Community and Applied Social Psychology*, 5 (3), pp.195-206.

[14] Kanning, U.P. (1997). *Selbstwertdienliches Verhalten und soziale Konflikte* [Self-esteem, behaviour, and social conflicts]. Münster : Waxmann.

[15] Zillmann, D. (1988). Mood management: Using entertainment to full advantage. In L. Donohew, H. E. Sypher, E. T. Higgins (Hrsg.), *Communication, social cognition, and affect* (S. 147-171). Hillsdale, NJ: Lawrence Erlbaum.

[16] McClintock, C. G. (1972). Social motivation – a set of propositions. *Behavioral Science, 17*, 438-454.

[17] Lerch, H.J. & Rübensal, M. (1983). Eine Analyse des Zusammenhangs zwischen Schulleistungen und dem Wetteifermotiv [An analysis of the relationship between school achievement and the motivation to compete]. *Psychologische Beiträge, 25*(3-4), 521-531.

[18] Bandura, A. (1997). *Self-efficacy : The exercise of control*. New York: Freeman.

[19] Schwarzer, R. & Jerusalem, M. (1995). Generalized Self-Efficacy Scale. In J. Weinman, S. Wright & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: NFER-NELSON.

[20] Messick, D. M. & Clintock, C. G. (1968). Motivational basis of choice in experimental games. *Journal of Experimental of Experimental Social Psychology, 4, 1-25.*

[21] Van Lange, P.A.M., & Kuhlman, D. M. (1994). Social value orientations and impressions of partner's honesty and intelligence: A test of the might versus morality effect. *Journal of Personality and Social Psychology, 67, 126-141.*

[22] Van Lange, P.A.M., Otten, W., de Bruin, E.M.N. & Joireman, J.A. (1997). Development of Prosocial, Individualistic, and Competitive Orientations: Theory and Preliminary Evidence. *Journal of Personality and Social Psychology, 73(4), 733-756.*

[23] Gill, D. L. & Deeter, T.E.(1988). Development of the Sport Orientation Questionnaire. *Research Quarterly for Exercise and Sport, 59*, 191-202.

[24] Vorderer, P. (2001). It´s all entertainment, sure. But what exactly is entertainment? Communication research, media psychology, and the explanation of entertainment experiences. *Poetics, 29,* 247-261.

[25] Sutton-Smith, B. (1997). *The Ambiguity of Play*. Cambridge, MA: Harvard University Press.