

# Digital Reality Experiences as a Different Psychological Feel, Some Suggestions for Future Development

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## Abstract

Digital games experiences of 60 willing participants were recorded with two questionnaires in a survey. In first questionnaire, participants' with self description, described own personality characteristics like steadfastness, social aspects and intelligence. The second questionnaire was about the personal experiences feels like pleasure, fear, nervousness and sensuality during digital reality games play. Both responses were compared with participants' willingness to play the same digital games again. Findings reflected that human preference for digital reality game (dummies) was different as compared with other animals' behaviors towards dummies, perhaps for pleasure that could be a mix of self-harm and self-deception or something else therefore evolving the possibility to describe digital experience as a different feel that could be positive because meanings of sadomasochism are now viewed with positive tilt (Wismeijer & Van Assen 2013) implications for future digital development also discussed.

## Introduction

Different digital reality forms virtual, augmented and mixed as argued and unrivalled by Rosenberg (1992) and Milgram & Kishino (1994) but now these are commonly known. Personality relationship with these digital situations have been reflected in multiple ways (Kim, Bruder, Maloney & Welch 2016: Hanna, & Richards 2016a: Astrid, Krämer & Gratch 2010: Buisine & Martin 2010: Karsvall 2002). The co-presence experiences with human surrogates (Kim & Welch 2015) have the capacity to influence human 'trust', 'social presence' (Robb & Lok (2014), motivation and emotions (Ahrndt, Fähndrich, Lützenberger & Albayrak 2015) further understanding of these human experiences could be more informing?

Virtual experiences or 'presence' are different than that of real experiences (Heeter 1992) because these takes place in 'Proteus Effect Virtual environments' (Yee & Bailenson 2007) that are filled with 'place illusions' and 'plausibility illusions' (Slater 2009b) Virtual environment is related with 'body ownership' and 'representation' (Slater, Spanlang, Sanchez-Vives & Blanke 2010 d) close to human 'propensity' Sanchez-Vives and Slater (2005) in (Slater 2007a) therefore, a few researchers have questioned the use of questionnaires for these complex situations (Slater 2004: Usoh, Catena, Arman & Slater 2000) as researchers have described with reference to 'presence' (Slater, Lotto, Arnold & Sánchez-Vives 2009 c).

Self-deception is a known human capacity that facilitates interpersonal deception (Von Hippel, & Trivers 2011: Troisi 2011), it is different from "inaccurate representation" (Pinker 2011) and is an 'active' human 'strategy' (Preti & Miotto 2011) for 'social gains' (Fridland 2011).

Self-harm is a psychological construct and in a study it was reported that 15% youth was subject to this situation (Laye-Gindhu & Schonert-Reichl 2005). Sufficient records about the construct have been reported in psychological literature (McAllister 2003) but a few factors controlling this behavior are yet not clear (Chapman, Gratz & Brown 2006). However, some measures are available for its measurement (Patterson, Whittington & Bogg 2007).

Human experiences play important role to shape personality (Birch & Fisher1996), a few researchers have evolved equations to define the construct and its role (Taylor & Todd 1995). The experiences are not only related with human behaviors but are known for its contributory role in the development of human nervous system and brain (Gottlieb 1976:Dawson, Ashman& Carver2000)

## Method and Procedure

It was assumed that self-explained personality comparison with digital reality experience could bring in some useful information about various players feels, those could be inform about certain relationships and may provide some additional information about these experience?

Total 60 willing participants fulfilling following conditions, education (having higher Secondary School Certificate and higher education) belonging to all genders with the age range of 10 to 30 years of age having an experience of digital reality, willing to sign the consent forms were requested in a random survey to complete some simple questionnaires (two) in native language consisting of total 10 questions. These questionnaires were multiple choices and each question had four possible choices. The participants were told to select only one option that suited them the most and that reflected their own self in the best possible manner. The running translation in English language of the first questionnaire that was consisting of 5 questions is as follows, first question was, “do you think that you are a brave person?”, the options those participants had to choose were a) Fully agreed b) Somewhat c) May be d) I do not know, the second question was” Do you think you can withstand most difficult situations?” The options for this question were, a) Always b) Most of the times c) Well may be d) I never thought about it, the third question was, “ Do you think that people around you always rate you as the best personality?” The answer options were, a) This statement is totally correct b) Perhaps often I felt like that c) You can say d) Perhaps it is not like that, the forth question was, “ Do you think that you are so intelligent that you understand what is difficult for others to grasp and you can easily clarify it to them,” The answers for this question were, a) It is 100% correct b) Often it happens c) I felt it on some occasions d) I do not know, the fifth question was, “Did you experience digital games earlier?” and options were a) Many times b) A few times c) Two times d) Never. It was supposed that the responses of the participants to the first question were their self reported self-assessment about their personalities, the responses to the second question were reflecting self-assessed resilience or steadfastness, the responses of the participants to the third question were about their social rating of their selves, the responses of the participants to the forth questions were about their self-assessed intelligence capacity and the responses of the fifth question were reflective of the participants’ digital games preference and experience levels as well as the desires to play the game again.

The second questionnaire was consisted of 5 multiple choice questions but in it each question was having similar multiple choice following possible options, a) Very much b) Yes c) May be d) Not at all. The first question was, a) It was pleasurable to play the digital game? The second question was b) did you feel scared during the digital game? The third question was, did you feel nervous during the digital game? The forth question was do you want to play this game again? The fifth question was that, did you feel sensuality in your body during the digital game?

These five questions were reflective of the feel experience of participants about digital reality games. First question’s choice was associated with the amount of pleasure associated with digital reality games starting from a) 4 marks b) 3 marks c) 2 marks and d) 1 mark, the fifth question was about the sensuality experience related with the play, the fourth question was about the measurement pleasure catching strength of digital game, whereas question no three and two were about the emotionally demanding experiences during the digital reality game play.

## Results

The percentages of the participants’ responses calculated. These reflected that the more one was self-assured questionnaire no-1, question no-1 choices no a) 45% responses, b) 40%, total approximately round about 85%, the more times he or she preferred to play and repeated playing digital games, questionnaire no-1, question no-5- choices no a) 46%and b) 38% and the more he or she experienced sensuality questionnaire

no-2, question no-5 choices no a) 13% b) 45% those were at the cost of emotionally demanding experiences, scores on questionnaire-2 questions nos-2-3 choices numbers respectively a) 6.7% and b) 40% and a) 23.3 and b) 66%. The similar combinations were found in other questions of questionnaire no-1 with questionnaire no-2 reflecting similar high scores trend as were on self-assessed personality types in case of high scores on self-described steadfastness, social aspects, intelligence and its relationship with the preferences to play digital games again.

## Conclusions, Discussion and Recommendations

The digital reality forms are different forms of actual reality and roughly speaking reflects ‘dummies’. In some animal experiments various animals never preferred to interact with dummies due to the presence of some negative feels associated with these (Fedderwitz 2010) or realizing that the animal was interacting with a dummy or understanding that, that it was useless to waste energy with that (West2005)? In other words the animal response were based on simple hedonic propositions; however, the self-assessed human response pattern in the study reflected something additional that could be the combination of self-harming experiences with a self-deception like situations for the gain of feel that was related with the experience of digital games that was pleasure but in a different structural form.

Sigmund Freud in 1924 in his article “Economic Problem of Masochism” (MASOCHISM. EDITOR) discussed the relationship of sufferings with enjoyment? He reflected this very aspect while discussing erotogenic masochism, later, some scholars (Grossman 1986: Brenner 1959) elaborated this apparently unusual human capacity ‘pleasure in pain’ with reference to gender (Blum1977) and literature (Balázs 2002) presently a new focus on the subject is reviving because of its ‘unexplored’ aspects (Cooper 2009). The term “sodomasochism” is the focus of the research (Richters, De Visser, Rissel, Grulich& Smith 2008) and positive tilt in its meanings have reported recently (Wismeijer& Van Assen2013)

Studies reflect that humans’ hedonic experiences could scientifically be explained with precision; therefore, scientists are working to locate hedonic hotspots in human brain to understand these important human experiences (Berridge & Kringelbach 2008). In that context a notable progress has been made and certain brain mediators those mediate in the experience of pleasure and happiness have been located (Berridge&Kringelbach 2011a). It has also been reported that happiness could be improved by introducing positive moods in life (Kringelbach & Berridge 2009). It is known that hedonic reward could add into human well-being (Pecina, Smith &Berridge 2006)therefore possibility does exist that neuroimaging of pleasure states could help (Berridge&Kringelbach 2015b) to improve the quality of life (Kringelbach&Berridge 2010b) and human well-being. It is applicable in digital experiences as well, if the role of aura or level of sensuality or relevant senses or feels in the future developments of digital reality may be stitched in, in the light of the combination of guiding psychological scientific constructs and players’ well defined personal experiences affects than probably it is possible that such would be an added strength of future digital products?

Like for examples world airlines pursue to make the passengers’ journey comfortable and same is applied for the transporters running private and public sectors transport. There is a possibility that a few of these may be offering digital forms of play opportunity for children or for all passengers during travel to add comfort in the journey. The proposed focus could add into the existing offered comfort levels. Usually the transporters and companies maintain a record of passengers, on first step these could be approached and asked, ‘are they interested to take part in a survey if they enjoyed any digital reality form (name of the facility could be mentioned to clarify) during their travel?’ In that context some future concessions in travel fairs or such things could be added to seek the attention. After it willing passengers could be approached to complete the proposed questionnaire. On receipt these could be analyzed for feel to pin point majority interests and preferences in simple way for future offers and development, moreover, such could be beneficial in other situations in multiple ways related with policy and plan. Furthermore, experts could design questions inlines with the given format for other digital reality forms developments in aviation and other industries to maximize human comfort in the light of available psychological knowledge.

## Summary Points

- It is study about human feel about digital reality experiences.
- 60 participants from diverse populations were recorded for experiences.
- Self-assessment based findings provided unique psychological information about experiences.
- The study also helped to highlight that how human behaviors are different from animals?
- The finding could help the more rewarding future digital reality forms development.

#### Conflict of Interest Statement

On behalf of the authors the corresponding author states that there is no conflict of interest.

#### References

- Ahrndt, S., Fähndrich, J., Lützenberger, M., & Albayrak, S. (2015, May). Modelling of personality in agents: from psychology to logical formalisation and implementation. In *Proceedings of the 2015 International Conference on Autonomous Agents and Multiagent Systems* (pp. 1691-1692). International Foundation for Autonomous Agents and Multiagent Systems.
- Astrid, M., Krämer, N. C., & Gratch, J. (2010, September). How our personality shapes our interactions with virtual characters-implications for research and development. In *International Conference on Intelligent Virtual Agents* (pp. 208-221). Springer, Berlin, Heidelberg.
- Balázs, T. (2002). Recognizing masochism: psychoanalysis and the politics of sexual submission in Ulysses. *Joyce Studies Annual* , (13), 160-191.
- Blum, H. P. (1977). Masochism, the ego ideal, and the psychology of women.
- Brenner, C. (1959). The masochistic character: Genesis and treatment. *Journal of the American Psychoanalytic Association* , 7 (2), 197-226.
- Berridge, K. C., & Kringelbach, M. L. (2008). Affective neuroscience of pleasure: reward in humans and animals. *Psychopharmacology* , 199 (3), 457-480.
- Berridge, K. C., & Kringelbach, M. L. (2011a). Building a neuroscience of pleasure and well-being. *Psychology of Well-Being: Theory, Research and Practice* , 1 (1), 3.
- Berridge, K. C., & Kringelbach, M. L. (2015b). Pleasure systems in the brain. *Neuron* , 86 (3), 646-664.
- Birch, L. L., & Fisher, J. A. (1996). The role of experience in the development of children's eating behavior.
- Buisine, S., & Martin, J. C. (2010). The influence of user's personality and gender on the processing of virtual agents' multimodal behavior. *Advances in Psychology Research* , 65 , 1-14.
- Cooper, A. M. (2009). Feature: the narcissistic-masochistic character. *Psychiatric Annals* , 39 (10), 904-912.
- Cooper, A. M. (2013). /The Narcissistic-Masochistic Character. In *Masochism* (pp. 127-148). Routledge.
- Chapman, A. L., Gratz, K. L., & Brown, M. Z. (2006). Solving the puzzle of deliberate self-harm: The experiential avoidance model. *Behaviour research and therapy* , 44 (3), 371-394.
- Dawson, G., Ashman, S. B., & Carver, L. J. (2000). The role of early experience in shaping behavioral and brain development and its implications for social policy. *Development and psychopathology* , 12 (4), 695-712..
- Fedderwitz, F. (2010). Protecting dogs against attacks by wolves (*Canis lupus*), with comparison to African wild dogs (*Lycaonpictus*) and dholes (*Cuonalpinus*).
- Fridland, E. (2011). Reviewing the logic of self-deception. *Behavioral and Brain Sciences* , 34 (1), 22-23.
- Gottlieb, G. (1976). The roles of experience in the development of behavior and the nervous system. In *Studies on the development of behavior and the nervous system* (Vol. 3, pp. 25-54). Elsevier.
- Grossman, W. I. (1986). Notes on masochism: A discussion of the history and development of a psychoanalytic concept. *The Psychoanalytic Quarterly* , 55 (3), 379-413.

Hanna, N., & Richards, D. (2015). The Influence of Users' Personality on the Perception of Intelligent Virtual Agents' Personality and the Trust Within a Collaborative Context. In *Advances in Social Computing and Multiagent Systems* (pp. 31-47). Springer, Cham.

Hanna, N., & Richards, D. (2016a). Do birds of a feather work better together? The impact of a match in personality between humans and virtual agents on a shared mental model during collaboration. *International Journal of Computational Intelligence Studies* , 5 (2), 162-179.

Heeter, C. (1992). Being there: The subjective experience of presence. *Presence: Teleoperators & Virtual Environments* , 1 (2), 262-271.

Hidi, S. (2000). An interest researcher's perspective: The effects of extrinsic and intrinsic factors on motivation. *Task· contingent rewards (co/lti" ued)* , 328 , 83.

Karsvall, A. (2002, October). Personality preferences in graphical interface design. In *Proceedings of the second Nordic conference on Human-computer interaction* (pp. 217-218).ACM.

Kim, K., Bruder, G., Maloney, D., & Welch, G. (2016, October).The influence of real human personality on social presence with a virtual human in augmented reality.In*Proceedings of the Combined International Conference on Artificial Reality &Telexistence and Eurographics Symposium on Virtual Environments (ICAT-EGVE)* (pp. 115-122).

Kim, K., & Welch, G. (2015, September). Maintaining and enhancing human-surrogate presence in augmented reality. In*Mixed and Augmented Reality Workshops (ISMARW), 2015 IEEE International Symposium on* (pp. 15-19). IEEE.

Kringelbach, M. L., &Berridge, K. C. (2009).Towards a functional neuroanatomy of pleasure and happiness. *Trends in cognitive sciences* , 13 (11), 479-487.

Kringelbach, M. L., &Berridge, K. C. (2010a).The neuroscience of happiness and pleasure. *social research* , 77 (2), 659.

Laye-Gindhu, A., &Schonert-Reichl, K. A. (2005).Nonsuicidal self-harm among community adolescents: Understanding the "whats" and "whys" of self-harm. *Journal of youth and Adolescence* , 34 (5), 447-457.

McAllister, M. (2003). Multiple meanings of self-harm: A critical review. *International journal of mental health nursing* ,12 (3), 177-185.

Milgram, P., &Kishino, F. (1994). A taxonomy of mixed reality visual displays. *IEICE TRANSACTIONS on Information and Systems* , 77 (12), 1321-1329. Milgram, P., &Kishino, F. (1994). A taxonomy of mixed reality visual displays. *IEICE TRANSACTIONS on Information and Systems* , 77 (12), 1321-1329.

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Patterson, P., Whittington, R., &Bogg, J. (2007). Testing the effectiveness of an educational intervention aimed at changing attitudes to self-harm. *Journal of psychiatric and mental health nursing* , 14 (1), 100-105.

Pecina, S., Smith, K. S., &Berridge, K. C. (2006).Hedonic hot spots in the brain. *The Neuroscientist* , 12 (6), 500-511.

Pinker, S. (2011).Representations and decision rules in the theory of self-deception. *Behavioral and Brain Sciences* , 34 (1), 35-37.

Preti, A., &Miotto, P. (2011).Self-deception, social desirability, and psychopathology. *Behavioral and Brain Sciences* , 34 (1), 37-37.

Renninger, K. A. (2000). Individual interest and its implications for understanding intrinsic motivation.In *Intrinsic and extrinsic motivation* (pp. 373-404).

- Richters, J., De Visser, R. O., Rissel, C. E., Grulich, A. E., & Smith, A. M. (2008). Demographic and psychosocial features of participants in bondage and discipline, "somasochism" or dominance and submission (BDSM): Data from a national survey. *The journal of sexual medicine* , 5 (7), 1660-1668.
- Robb, A., & Lok, B. (2014, March). Social presence in mixed agency interactions. In *Virtual Reality (VR), 2014 IEEE* (pp. 111-112). IEEE.
- Rosenberg, L. B. (1992). *The Use of Virtual Fixtures as Perceptual Overlays to Enhance Operator Performance in Remote Environments* .StanfordUnivCa Center for Design Research.
- Slater, M. (2004). How colorful was your day? Why questionnaires cannot assess presence in virtual environments. *Presence: Teleoperators& Virtual Environments* , 13 (4), 484-493.
- Slater, M. (2007a). The concept of presence and its measurement. *PEACH Summer School, Santorini, Greece* .
- Slater, M. (2009b). Place illusion and plausibility can lead to realistic behaviour in immersive virtual environments. *Philosophical Transactions of the Royal Society of London B: Biological Sciences* , 364 (1535), 3549-3557.
- Slater, M., Lotto, B., Arnold, M. M., & Sanchez-Vives, M. V. (2009c). How we experience immersive virtual environments: the concept of presence and its measurement. *Anuario de Psicologia, 2009, vol. 40, p. 193-210* .
- Slater, M., Spanlang, B., Sanchez-Vives, M. V., & Blanke, O. (2010d). First person experience of body transfer in virtual reality. *PloS one* , 5 (5), e10564.
- Taylor, S., & Todd, P. (1995). Assessing IT usage: The role of prior experience. *MIS quarterly* , 561-570.
- Troisi, A. (2011). Deception through self-deception: Take a look at somatoform disorders. *Behavioral and Brain Sciences* , 34 (1), 39-40.
- Usoh, M., Catena, E., Arman, S., & Slater, M. (2000). Using presence questionnaires in reality. *Presence: Teleoperators& Virtual Environments* , 9 (5), 497-503.
- Von Hippel, W., & Trivers, R. (2011). Reflections on self-deception. *Behavioral and Brain Sciences* , 34 (1), 41-56.
- West, P. M. (2005). The lion's mane. *American scientist* , 93 (3), 226-235.
- Wismeijer, A. A., & Van Assen, M. A. (2013). Psychological characteristics of BDSM practitioners. *The journal of sexual medicine* , 10 (8), 1943-1952.
- Yee, N., & Bailenson, J. (2007). The Proteus effect: The effect of transformed self-representation on behavior. *Human communication research* , 33 (3), 271-290.