

Date: Tuesday 6 July - Wednesday 7 July 2021 (Virtual)

Conference theme: Future Directions, Challenges and Opportunities in Cyberpsychology.

Registration link: <https://www.delegate-reg.co.uk/cyber2021/>

Symposium on Game Transfer Phenomena

Participants

#	Presentation	Presenter	Co-authors	Affiliation
1	The Scope and Trajectory of Research on Game Transfer Phenomena	Angelica B. Ortiz de Gortari angelica@gametransferphenomena.com	N/A	The Centre for the Science of Learning & Technology; University of Bergen, Norway
2	The role of spontaneous cognition, positive schizotypal traits and internet gaming addiction in the frequency of Game Transfer Phenomena	Julio Llamas-Alonso j.llamas-alonso@herts.ac.uk	George Georgiou Lia Kvavilashvili Angelica B. Ortiz de Gortari	Department of Psychology and Sport Sciences, University of Hertfordshire, UK
3	Comparing Gaming Disorder with Game Transfer Phenomena: demographics, psychosocial, gambling and gaming factors	Amanda Jones-Rincon Amanda.Jones-rincon@utsa.edu	Angelica B. Ortiz de Gortari Martin I. Gallegos James H. Bray	Department of Psychology, University of Texas at San Antonio, USA
4	Benefits of assessing Game Transfer Phenomena in clinical practice	Alex Basche Alexbaschetherapy@gmail.com	Angelica B. Ortiz de Gortari	Private practice, Reset From Tech, USA

Symposium summary

Game Transfer Phenomena: An Emerging Field of Study into the Impact of Digital Imagery and Simulations

Game Transfer Phenomena (GTP) is a holistic research approach to understand the impact of digital imagery and simulations on individuals' perception, cognition and behaviour. GTP research focuses on examining the interplay between individual experiences (i.e. sensory, cognitive and motoric intrusions and transient changes in perception and behaviour) and game features and mechanics. This symposium gathers a series of empirical studies on GTP. The symposium includes an overview of GTP research since the first study in 2010 and highlights future research directions.

The presentations aim to answer the following questions:

- What has been the scope of research conducted on GTP to date?
- How prevalent is GTP, and what are the most common forms?
- What is the relationship between GTP, playing time and psychopathological factors?
- What are the differences and similarities between GTP and Gaming Disorder?
- What is the interplay between GTP and co-occurring symptoms of mental disorders in clinical cases?
- What benefits can the GTP framework bring to psychotherapy and differential diagnosis?

Session 1

The Scope and Trajectory of Research on Game Transfer Phenomena

Angelica B. Ortiz de Gortari

Objective/Purpose

This paper aims to provide evidence for the prevalence of Game Transfer Phenomena (GTP) (i.e., sensory and cognitive intrusions and automatic behaviours with video game content) and discusses future research directions.

Background

The research on GTP began with interviews of young players to determine how videogames were integrated into their daily lives.

Methods/Design

Secondary analyses of existing data (2011–2021) of studies on and related to GTP. The focus was to describe the investigated factors, demographics, videogame genres and prevalence of GTP, and the methodologies.

Results

Preliminary results showed 39 studies. Most studies on GTP have used survey methodology (n=20). The prevalence of GTP was 74.8–99.1%. Qualitative studies on GTP included interviews, online forums, clinical cases, and a diary study (n=7). Other studies have covered aspects related to GTP via surveys, experiments and clinical cases (n=12). Most common GTP included visual imagery and seeing images with closed eyes, music imagery, thinking about using game elements and impulses to act as in a game. Demographics, gaming habits, Gaming Disorder, underlying psychopathology, dreams/hypnagogia, immersion and executive functions are among the factors that have recurrently been examined in association with GTP. Most studies have examined GTP in non-clinical adults.

Conclusions

The most prevalent forms of GTP corresponded to visual and music imagery, which are common among the general population and long-lasting afterimages, which are more uncommon and typically associated with psychiatric and neurological conditions. Research on GTP has focused on gaming habits and psychopathological factors. Future studies should explore VR games and use experimental and longitudinal methodologies.

Session 2

The role of spontaneous cognition, positive schizotypal traits and internet gaming addiction in the frequency of Game Transfer Phenomena

Julio Llamas-Alonso, George Georgiou, Lia Kvavilashvili
and Angelica B. Ortiz de Gortari

Objective/Purpose

Previous research has shown that the frequency of Game Transfer Phenomena (GTP) is related to several variables such as hours played, having a history of medical conditions or mental disorders (e.g., sleep disorder, ADHD, dysfunctional gaming). The present study investigated several specific psychopathology predictors of GTP (e.g., schizotypal personality, depression, internet gaming addiction, etc.), and assessed for the first time, a possible relationship of GTP with other spontaneous cognitive phenomena (e.g., involuntary semantic memories or mind-popping, mind-wandering).

Method/Design

A total of 250 participants completed all the questionnaires and tasks included in the study. The frequency of GTP, measured by a validated scale, was the main outcome variable. Predictor variables were gaming behaviour (hours played per week and the length of gaming sessions), frequency of mind-wandering and mind-popping, and participants' scores on validated questionnaires measuring anxiety, stress, depression, schizotypal personality, impulsivity, and internet gaming addiction.

Results

The results of a hierarchical multiple regression analysis showed that mind popping and day dreaming frequency, internet gaming addiction, positive schizotypal traits, and motor impulsivity were the most important predictor variables of GTP frequency accounting for a total of 48% of variance in the model.

Conclusions

These results provide strong initial support for our theoretical prediction that GTP is part of a larger family of involuntary cognitive phenomena. In addition, the GTP frequency was predicted by only a small subset of psychopathology indices calling for more targeted investigation of these variables in relation to GTP.

Session 3

Comparing Gaming Disorder with Game Transfer Phenomena: demographics, psychosocial, gambling and gaming factors

Amanda Jones-Rincon, Angelica B. Ortiz de Gortari,
Martin I. Gallegos, and James H. Bray

Objective/Purpose

Previous studies have found a relationship between Gaming Disorder (GD) and Game Transfer Phenomena (GTP). This study identified similarities and differences between GD and GTP (post-playing phenomena). This was done by examining predictors for GD and GTP among psychosocial factors, gaming and gambling factors commonly associated with GD.

Design/Methods

A total of 424 players (51% males, mean age = 28.2, SD = 7.8) answered an online survey. Participants reported playing video games an average of 12.40 hours per week ($SD = 14.15$). Psychometric validated tools were used to assess the psychosocial factors (PHQ-9, GAD-Q-IV, PSS, AUDIT, SOGS, DAST), GD and GTP. A hierarchical multiple regression analysis was used to identify predictors for GD and GTP.

Results

Most of the psychosocial factors investigated were associated with both GD and GTP. These included depression, anxiety, perceived stress, aggression, gambling habits, loot boxes and microtransactions. GD and GTP predicted each other. Being male and higher levels of aggression predicted both GD and GTP. Remarkable was that playing more hours per week only predicted GD, while higher alcohol consumption and more gambling problems only predicted GTP.

Conclusions

Several factors investigated were associated with and predicted both GD and GTP. However, playing time appears to be particularly relevant for GD rather than GTP. The implications of these results will be discussed.

Session 4

Benefits of assessing Game Transfer Phenomena in clinical practice

Alex Basche and Angelica B. Ortiz de Gortari

Objective/Purpose

Game Transfer Phenomena (GTP) comprise sensory (e.g., seeing or hearing something perceived or experienced in a videogame) and cognitive intrusions, transient changes in perception and self-agency associated with videogames. This paper examines GTP in a clinical sample and demonstrates the benefits of assessing GTP in clinical practice.

Design and background

Having a mental health disorder appears to increase the susceptibility to GTP, although most who experience GTP do not have a clinical diagnosis. While Gaming Disorder is associated with GTP, most players do not have negative consequences due to their GTP. The cases are presented within the context of GTP in order to highlight how GTP manifests.

Methods

Clinical interviews and clinical tools, including a validated scale on GTP. Three cases, both genders, 15-17 years old.

Results

The diagnoses comprised of Gaming Disorder, Generalised Anxiety, Depressive Disorder, Autism, Gender Dysphoria, and Substance Dependence. GTP manifestations included: i) assuming game abilities can be transferred to real-life, leading to frustration and angry outbursts when realising this was not possible, ii) misperceiving sounds and voices as those from a scary game character causing anxiety and embarrassing behaviour, and iii) engaging in repetitive activity to induce GTP for self-soothing effects.

Conclusions

The examination of GTP showed how games influenced client behaviours and their interpretation of everyday situations. Assessing GTP in clinical practice facilitated meaningful dialogue with these clients by contextualising their gaming behaviour into their everyday life, helping the clinician identify and understand behaviours that could be considered irrational, and was demonstrated to be useful as a psycho-pedagogic method.