



The relevance of Game Transfer Phenomena when addressing problematic gaming

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Introduction

Diagnostic criteria for substance dependency and pathological gambling have been adapted to measure gaming addiction. However, post video game effects that may contribute to the prevalence of the symptoms of video game addiction have not been measured in clinical settings.

What are Game Transfer Phenomena (GTP)?

Game Transfer Phenomena (GTP) comprise the transfer of video game experiences into the real world and manifest in different modalities. GTP occur spontaneously and usually without gamers control. In the most of the cases GTP are trigger by associations between real life stimuli and video games experiences. Physiological, perceptual and cognitive mechanism are involved.

Background

- Two qualitative studies about GTP have been conducted:
- Explorative interview study: 42 young, Swedish frequent gamers between 15 and 21 years old (1).
 - Data analysis of 54 online video game forums: 652 experiences from 462 players (2,3).

Conclusions

Findings in the two studies suggest that GTP are related to frequent and intensive video game playing (usually a consequence of extended video games sessions).

Some of the GTP may depend on individual characteristics. However, different individuals had similar experiences when playing the same video games (1,3).

The GTP studies suggest that playing can result in intrusive experiences that manifest as (i) automatic mental process, (ii) altered visual perceptions, (iii) auditory and other altered perceptions, (iv) automatic actions and behaviors with video game content (1,3).

Further studies should systematically investigate the correlation between GTP and problematic gaming → Current survey: www.gametransferphenomena.com/survey_pg.html

"After a long *Black Ops* [Call of duty] session I looked at a woman riding a bicycle and saw a red player tag above her head. Luckily, I didn't have my gun on hand..."
-Max



Altered visual perceptions	
• See video games elements in real life	45%
• Mind visualizations	21%
• Visual distortions	19%
• Misperceptions	7%
• Unspecified	6%
• Cross sensorial perceptions	2%

"I walked into the school as the door shut behind me, I heard the same sound that spiders make when they're attacking in *Minecraft*, and I ran like hell".
-Jelor



Auditory and other altered perceptions	
• Earworm	
• Auditory misperceptions	
• Inner voice	
• Body sensations	

Automatic mental processes	
• Recurrent thoughts	
• Source monitoring errors	
• Procedural replays	
• Urges and impulses	



I was playing all *Assassin's Creeds* without sleep. I was going out and when I was passing buildings, I thought that I could climb... even had a strange anxiety to try and climb to one, but I kept myself from doing that :D
-Raldrag

Automatic actions and behaviors	
• Body reflexes and atypical psychomotor movements	
• Unintentional reproduction of words, sound or songs	
• Source monitoring errors that result in actions	
• Imitation	



"I notice a security camera. INSTANTLY, I panic and reach for my pistol, praying that I still have enough ammo to take it out, oh god... then I realized that it was broad daylight not a space station, and that I neither have a pistol"
-Matty

Why GTP is relevant when addressing problematic gaming

- **Intrusive and stereotypical experiences:** Video game content appear recurrently while doing daily activities (e.g., driving) or when trying to sleep, sometimes provoking sleep deprivation.
- **Automatic associations:** Associations between real life stimuli, and previous video game experiences trigger GTP.
- **Confuse real life objects and events:** Real life stimuli and events that resemble video game elements and events are misperceived.
- **Responses to real life stimuli and events as in the game:** e.g. urge to perform actions as in the game; avoidance or overreaction to real life stimuli.
- **Preservative replays of the game:** Gamers get stuck in the mind setting of the game.
- **Mood modification:** e.g., development of hyper-vigilant behaviors.
- **Altered self-perceptions:** e.g. feel they are the game character, altered body sensations, feel as though they are still in the game.
- **Intrusive location:** e.g. development of irrational thoughts are reinforced by rituals and habits.
- Demystifying GTP experiences appear to be relevant to help gamers to interpret their own mental health, and stops gamers thinking it is a sign of madness. Instead it encourages self-control, awareness and healthy gaming.

References

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