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Assessing Game Transfer Phenomena in a Chinese population

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Background: Game Transfer Phenomena (GTP) involve intrusive thoughts, impulses, imagery, body sensations, and involuntary actions with video game content. GTP has been assessed via the GTP Scale (GTPS-20), which has been validated in a heterogenous sample of English-speaking gamers, and Polish, Turkish and Mexican samples. This study is the first attempt to validate the GTPS-20 in a Chinese sample. Method: A sample of 623 Chinese gamers completed an online survey. 60% were females. The GTPS-20 was translated into Chinese via the back-translation method and comprised five subscales: sensory perceptions (visual, auditory, body), automatic thoughts and automatic actions/behaviours. Results: The CFA results showed that the GTPS-20 is a reliable and valid instrument for assessing GTP among Chinese gamers. The prevalence of GTP was 82%. Visualising/seeing images with closed eyes and hearing music, sounds or voices from the game had the highest mean scores. Males were significantly more likely to experience GTP. Those between 20 - 24 years old had significantly higher GTP mean scores than those in the youngest group. Those who played more than 4 hours had the highest mean score. Playing 1 hour or less had significantly lower mean scores than those playing more. Conclusions: This study contributes to the existing research on GTP by corroborating the high prevalence of GTP and the cross-cultural validity and reliability of the GTPS-20 among Chinese gamers - who constitute the largest video gaming community globally.

Keywords: Game Transfer Phenomena, Chinese, GTPscale

Emotional appraisal of loot boxes: Emotional regulation, gaming and gambling disorder and Game Transfer Phenomena

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Background: The acquisition of loot boxes in videogames has been linked to dysfunctional gaming, and the rewards received from them can trigger intense emotions. However, it is not yet clear which gamers are more susceptible to developing problems with loot boxes. This study examines the relationship between different gamer profiles, their susceptibility to gaming and gambling disorders, difficulties with emotion regulation, Game Transfer Phenomena (GTP) (i.e., re-experiencing game content such as images/sound after playing), and gaming habits. Method: A total of 663 university students answered a survey (52% females, mean age = 19.34 years, SD = 2.42). *Results:* A cluster analysis revealed three different groups based on emotional reaction (positive or negative), level of involvement and attitudes towards loot boxes. Multiple ANOVA analyses showed significant differences among the identified profiles. The group identified as "highly emotional and problematic" exhibited significantly higher scores on gaming and gambling disorder symptoms (i.e., IGD, G-SAS) compared to the other groups. Additionally, this profile was characterized by playing more per week, higher scores in GTP, negative opinions about loot box games, and difficulties in emotional regulation (i.e., DES) such as difficulty engaging in goal-directed behaviour when distressed and controlling aggressive impulses. *Conclusions:* This study highlights the key characteristics of different gamer profiles who engage in games with loot boxes. The findings suggest that effectively addressing problematic gaming requires considering not only the level of involvement with loot boxes but also the emotional response exhibited while opening them and experiencing GTP.

Keywords: Loot boxes, emotion regulation, gaming disorder

The relationship between Gaming Transfer Phenomena and gaming disorder: Longitudinal research results

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Background: Game Transfer Phenomena (GTP) are the transfer of experiences from video games to the real world, resulting in changes in perception, cognition, and behaviour. Previous research has shown that GTP is positively correlated with gaming disorder (GD). However, there is a research gap regarding the causal direction of the relation between GTP and GD. Consequently, this study aimed to investigate the impact of GTP and GD on each other across time. Method: The longitudinal study consisted of five measurements. The first measurement (October 2022) involved 1,525 active gamers, while the last measurement (June 2023) involved 405 active gamers (224 female gamers; M=28.05 years; SD=4.51; age range: 18-35 years). GD was assessed using the Gaming Disorder Test (GDT). The data was analysed using the random intercept cross-lagged panel models (RI-CLPM). The analysis included data from Time 1, Time 3 and Time 5. Results: The prevalence of GTP in the sample ranged from 72.59% to 55.55%, and 2% fulfilled the GD symptoms. The findings demonstrated that, at the within-person level, GTP from Time 3 was negatively associated with GD from Time 1. Additionally, GD from Time 3 was negatively associated with GTP and GD from Time 1. However, it should be noted that GTP was positively correlated with GD at the between-person level. Conclusions: The results may indicate a different connection between GTP and GD than previously thought. It can be assumed that there may be mediating variables that can account for the results obtained.

Keywords: Game Transfer Phenomena, gaming disorder, longitudinal

Sensory experiences during and after playing video games and watching videos with ASMR-eliciting properties

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Background: Understanding how particular visual, auditory, and kinaesthetic features in video games or videos can elicit pleasurable and aversive sensory experiences is crucial for providing advice regarding media content development. This study investigates Game Transfer Phenomena (GTP) (e.g., re-experiencing visual/auditory imagery, body movements and impulses with videogame content) and ASMR (i.e., tingling sensations that originate in the crown of the head in response to audio-visual triggers) to elucidate the underlying mechanism involved in individual susceptibility and identify media features associated with both phenomena. Method: A total of 505 participants with no psychotic diagnosis completed an online survey (Mean Age = 26.70, Sd = 13.85). The controls only completed meta cognitions (MCQ-30), Unusual Sensory Experiences (MUSEQ) and the Sensory Hypersensitivity (SHS) scales. Results: MCQ scores were significantly higher in those who played videogames and watched ASMR videos than in the control group. Prevalence of GTP in gamers = 98.5%, ASMR prevalence = 92.9%. MCQ, MUSE and SHS were correlated with GTP and ASMR. Males were significantly more likely to experience GTP. Sensations while playing (e.g., eye strain, calm, fatigue, headache) were correlated with GTP. Tingling sensations were reported frequently when encountering ASMR-related cues. The most common game features manifesting in GTP experiences included: repetitive movement, fast actions, mechanic/synthetic voice; in ASMR: soft voice/whispers, slow movement/slow motion, scratching/clicking/tapping. Conclusions: This study contributes to understanding the impact of digital media and demonstrates that GTP and ASMR share underlying mechanisms, including metacognition impairment, sensory sensibility and proneness to general hallucinatory phenomena.

Keywords: Game Transfer Phenomena, ASMR, sensory experiences