Self-Construal, Media Use and Dreams between Canadians of Differing Cultural Backgrounds

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Introduction

The focus of this study is to investigate the affects of culture in mediating the relationship between dreaming and media use. In 2013 the American Psychological Association released its fifth and newest version of the Diagnostic and Statistical Manuel with mention of "Video Gaming Disorder." A large contributing factor for this being mentioned in the DSM-V, is the increasing growth of gaming in China and the research inquiring about addiction in gaming. Primarily we are investigating the negative and positive effects that gaming and another heavy media use variable, social media use, have on users visa vie their dreams and comparing North Americans of differing ethnic backgrounds.

So why are we investigating the effects that it has on dreams? Firstly, participants will not as easily succumb to the Halo effect, self report as unduly positive, and secondly, in later analysis we will be using systematic dream content analysis which is sensitive enough to detect potential problems and themes within the dreams. The system that we use is the Hall and Van de Castle because it is reliable and normalized therefore provides us with comparable data. This report is of a first step focusing on self reports only.

Our waking world is highly influenced by our culture and by the media that we immerse ourselves in, but the same is true for dreaming. We see this "game-transfer" (Ortiz de Gortari, Aronsson, & Griffiths, in press) phenomenon in both waking and dreaming, which is when learned responses that are acquired in the reality that is present in video game play shifts to other realms of reality such as waking and dreaming. A prime example is the nightmare protection effect which was investigated by Gackenbach, Ellerman and Hall in 2011. Basically what they found was that males who played action video games had learned responses which transferred into their dreams and protected them in part from nightmares. This effect was not seen in females in a later study (Gackenbach, Darlington, Ferguson, & Boyes, 2013).

So we see that video game play can have its benefits in dreaming but what about social media use? Is there a transfer phenomenon like with video games? Cirucci (2013) hypothesized that video game players would display similarities to social media users. Gackenbach and Boyes (2014) found, when examining both types of media use (video game play, VGP, and social media use, SMU), that high VGP/high SMU group had the thinnest psychological boundaries and thus were perhaps most susceptible to media effects. While at the same time this group of high end media users showed the least negative self concepts in their recent dream content.

What about our culture and its effects? These questions are what we are investigating in a larger study of which this one is a portion (Gackenbach, Lee, Gahr, & Yu, 2014). Culture herein is considered by examining self construal's which are personality dimensions broken down into independent versus interdependent. The collectivist east is seen as being more interdependent, value group harmony and cooperation, whereas the individualistic west (independent), values personal achievement and self-identity that is separate from others (Lu & Gilmour, 2007). The second way that cultural differences are examined herein is self reports of ethnic background plus reports of first language.

Method

Participants in this portion of the larger study were Canadian undergraduate students. They were awarded 2% credit for their participation. Students filled out an online survey via Qualtric which is an American online survey software company. All identities were anonymous. The first data gathered was on: demographics, sex, education, ethnic identity. Video game history was then gathered and social media use. The social media use questionnaire inquired about the frequency of use of both North American social media, such as Facebook, and Chinese social media such as Ozone. This was then followed by the Dream Intensity Scale (DIS; Yu, 2010), which examines the intensity of Chinese participant's subjective experience within the dream. Afterwards, participants were asked for a recent dream. Following the recording of a recent dream participants proceeded to the Independent versus Interdependent Self Construal Scale (SCS; Lu, & Gilmour, 2007), which was normed on British and Chinese populations.

Table 1: Factor Analysis of Major Components

N's=376 to 451 (pairwise deletion); 0.4 cutoff	1	2	3	4	5	6	7
SCS Independent sum	.167	.164	-.018	.671	.056	.166	-.145
SCS Collectivist/interdependent sum	-.099	-.092	.037	.775	-.013	.050	.114
ethnic + 1st language classification*	-.112	-.022	.171	.357	-.640	-.013	.012
media use factor score 1 - video gamers	-.033	.145	.434	-.269	.097	.142	-.390
media use factor score 2 – heavy social media	.012	.120	-.114	.039	-.015	.738	.074
media use factor score 3 – you tube	-.076	-.085	.574	.239	-.263	.040	.277
media use factor score 4 - young gamers	.080	.208	.144	.188	.605	-.273	.190
media use factor score 5 - myspace	.487	-.305	-.076	.113	-.109	-.081	-.278
media use factor score 6 – linked in	-.065	-.230	-.005	.145	.634	.259	-.027
DIS regular dreams subscale means	.624	.408	-.110	-.150	.094	.069	.135
DIS bad dreams subscale means	.554	.164	-.014	-.130	.075	.247	.357
DIS major modalities dreams subscale means	.079	.777	-.060	-.026	.006	.101	.022
DIS minor modalities dreams subscale means	.164	.668	.169	.096	-.068	-.119	-.118
DIS dream work subscale means	.326	.157	.531	.026	.029	.277	.113
DIS paramnesia subscale means	.382	.222	.214	.051	.108	.201	.314
DIS lucid dreaming subscale means	.739	.014	.105	.008	-.053	-.058	.015
DIS autosuggestion subscale means	.694	.121	.172	.093	.109	.084	.013
dream emotions factorscore 1 - most negative	.095	-.089	.096	.119	.045	.538	-.073
dream emotions factorscore 2 - positive	.108	.001	.668	-.028	.028	-.194	-.106
dream emotions factorscore 3 - fear/terror	.085	-.054	.013	-.026	.053	-.025	.750

* (1=independent/English first language; 2=collectivist/English first language; 3=collectivist/English NOT first language)

Results

Over 508 research participants filled out the survey with most in the winter term of 2014. Of these, 57 were substantially incomplete and removed. The remaining 451 surveys came from 135 males and 316 females from a western Canadian university. Ethic identity and first language were open ended questions, which were then coded as Independent/Collectivist and English/not English. These combined to create three groups falling along a continuum of culture (1 = independent/English first language; 2 = collectivist/English first language; 3 = collectivist/English NOT first language). Sum scores for the two types of self-construal were computed from the SCS.

Media use items included four for video game play (frequency, length of session, number of games played, age started to play with high number younger) and 11 social media use variables (age started to use, frequency of use for Facebook, Linkedin, Twitter, Tumblr, Instagram, Myspace, Youtube, Google+, Pinterest, Other). These were factor analyzed resulting in six factors: video game play; serious social media, youtube, young gamers, myspace, linkedin. These factor scores were entered in the final factor analysis. Dreaming items were the 8 subscales of the DIS which are listed in Table 1. Also on that table are factor scores from a factor analysis on self reported emotions regarding the recent dream. The factors were general negative emotions, positive emotions, and fear/terror.

Table 1 portrays a varimax rotated factor analysis of cultural, media use and dream variables. Culture, as per self-construal, loaded alone while the derived ethnic score loaded negatively (Canadians whose English is their 1st language) with young gamers and use of linked in. On four factors media use was associated with some dream measure.

Gaming was positively associated with the dream work subscale. This included items assessing condensation, displacement, fabrication of dream characters, animal symbolism and inanimate object symbolism, and positive emotions. Gaming was marginally negatively (less gaming) associated with more fear/terror regarding the recent dream just reported.

Social media loaded with dreams in two factors. Myspace use was associated with two of Yu's higher order dimensions (amount of dreams and altered dream episodes). Heavy social media use was associated with negative emotions reported for the recent dreams.

The major limitation of this study is that most of the research participants were women. Media use shows various differences as a function of gender. We have repeatedly found that while there are high end female gamers and low end male gamers these are cells that are very difficult to fill.

Conclusion

The research literature has been showing various concerns with heavy social media use including lowered self esteem. So too with video game play, negative effects can emerge with too much play. A subtler examination of such effects is possible when considering dreams. Although self reports in this examination, none-the-less there is some indication of a positive association with gaming (factors 2 & 7). Both a negative (factor 6) association and a positive and negative (factor 1) association was also indicated with social media use. Culture showed no dream association.

References

American Psychiatric Association (2013) *Internet Gaming Disorder*. Retrieved May 28, 2013 from http://www.psychiatry.org/practice/dsm/dsm5.

Cirucci, A. M. (2013). First person paparazzi: Why social media should be studied more like video games. *Telematics and Informatics*, *30*(1), 47-59.

Gackenbach, J.I. & Boyes, A. (2014). *Social Media versus Gaming Associations with Typical and Recent Dreams*. Paper under editorial consideration.

Gackenbach, J.I., Darlington, M., Ferguson, M.L., & Boyes, A. (2013). Video game play as nightmare protection: A replication and extension. *Dreaming*. 23(2), 97-111.

Gackenbach, J.I., Ellerman, E. & Hall, C. (2011). Video Game Play as Nightmare Protection: A Preliminary Inquiry in Military Gamers. *Dreaming*. 21(4), 221-245

Gackenbach, J., Lee, M.N., Gahr, S., & Yu, G. (2014, June). *The Relationship Between Self-Construal, Media Use and Dreams: A Cross Cultural Study*. Paper presented at the annual meeting of the International Association for the Study of Dreams, Berkeley, CA.

Lu, L. & Gilmour, R. (2007). Developing a new measure of independent and interdependent views of the self. *Journal of Research in Personality*, 41, 249-257.

Ortiz de Gortari, A., Aronsson, K. & Griffiths, M. (in press). Game Transfer Phenomena in Video Game Playing: A Qualitative Interview Study. *International Journal of Cyber Behavior, Psychology and Learning.*

Yu, C. K.-C. (2010). Dream Intensity Scale: Factors in the phenomenological analysis of dreams. *Dreaming, 20,* 107–129.

Acknowledgments

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