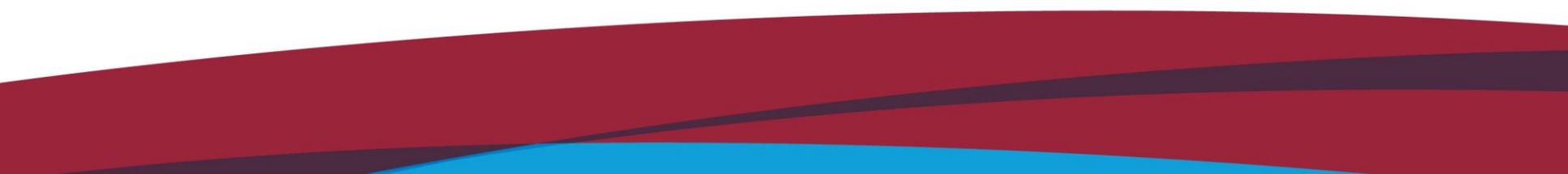


Nightmare Protection Hypothesis and Female Gamers

Arielle Boyes and
Jayne Gackenbach

MacEwan University



Video Games

- Hard-core video games often portray the main characters as fighting back against threats. This provides a scenario similar to the one Revonsuo (2000) argues dreams evolved for.
- Also, provides a realm for fight-or-flight responses (Taylor, 2012).



Social Media

- Social media provides users with a new medium for social contact.
 - Cirucci (2013a) suggests that winning in gaming is defeating one's foes, while winning in social media is becoming a celebrity.
 - In previous study Gackenbach & Boyes found:
 - Differences seemed to support the nightmare protection thesis of video game play such that high end gaming, no matter the degree of social media use, suffered less from these negative types of dreams. Additionally, the 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. This was reflected in their typical dream reports as well.

Nightmare Protection Hypothesis

- Gackenbach, Ellerman, and Hall (2011) conducted a study on military gamers.
 - They found:
 - For those not currently experiencing PTSD, video game play appeared to lessen the effects of nightmares.
 - These dreams were seen as being more empowering
 - A limitation of this study was that it included an almost entirely male population.

But...

- When Gackenbach, Darlington, Ferguson and Boyes (2013) replicated this study with a student population they found:
 - For male high-end gamers, the nightmare protection hypothesis appeared to hold
 - However, female high-end gamers were still troubled by their nightmares.

Hypotheses

- Genre of games played may be causing the gender divide.
- Women may be experiencing more stereotype threat.
- Coping responses may differ between genders. Females may be utilizing tend and befriend responses.

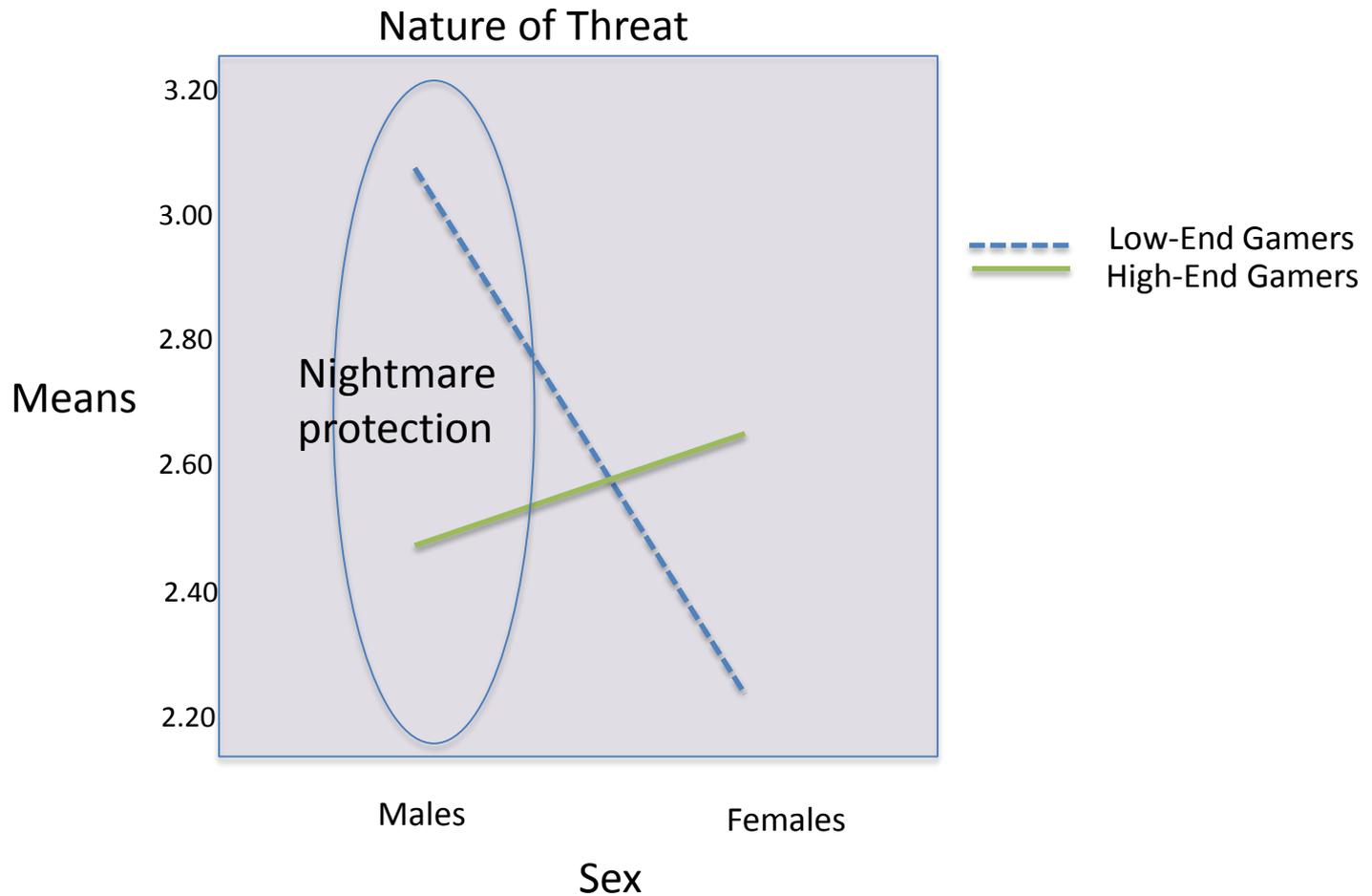
Methods

- Data was gathered on: demographics, video game history and social media use, BRIEF Cope, Stereotype Threat and a Dream Questionnaire.
- A nightmare was collected with questions about it
- Four groups were examined: high-end male gamers, low-end male gamers, high-end female gamers, and low-end female gamers
 - video game groups based on factor scores of game history questions
 - lower 2/3 (lows) and upper 1/3 (highs)

Results- Demographics

- 355 participants,
 - of this 272 reported nightmares.
- Of the 101 males, 68 were high-end gamers
- Of the 194 females, 31 were high-end gamers.
- Participants ranged in age from 17 years old to 50 years old with a mean age of 20 years old.

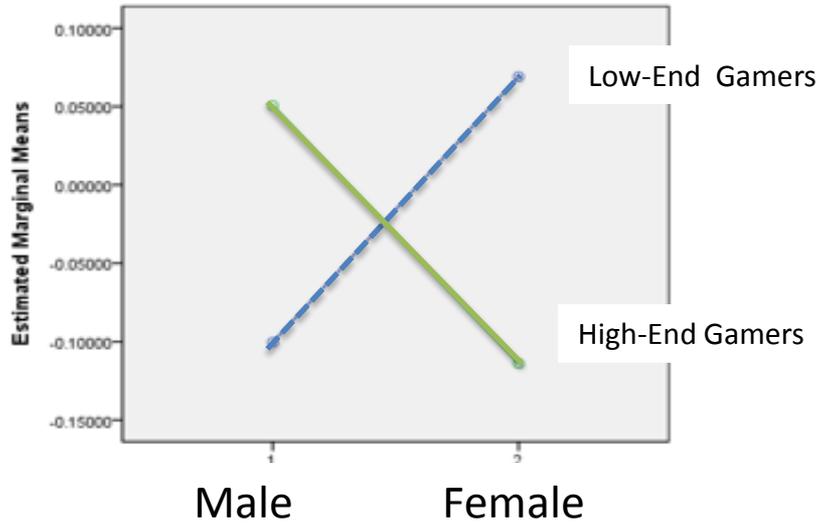
Differences in Nightmare Protection



More Differences in Nightmare Protection

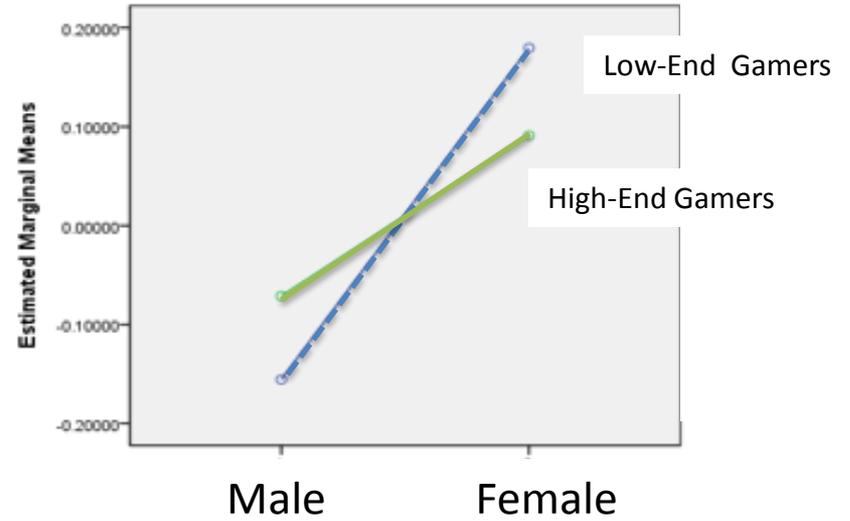
- In-dream emotions
- 15 emotions asked about
- Factor analysis reduced these to three factors
- Sex x gamer x dream emo fac score ANCOVA (#words/dream as covariate)
- Three way interaction

Negative Emotions



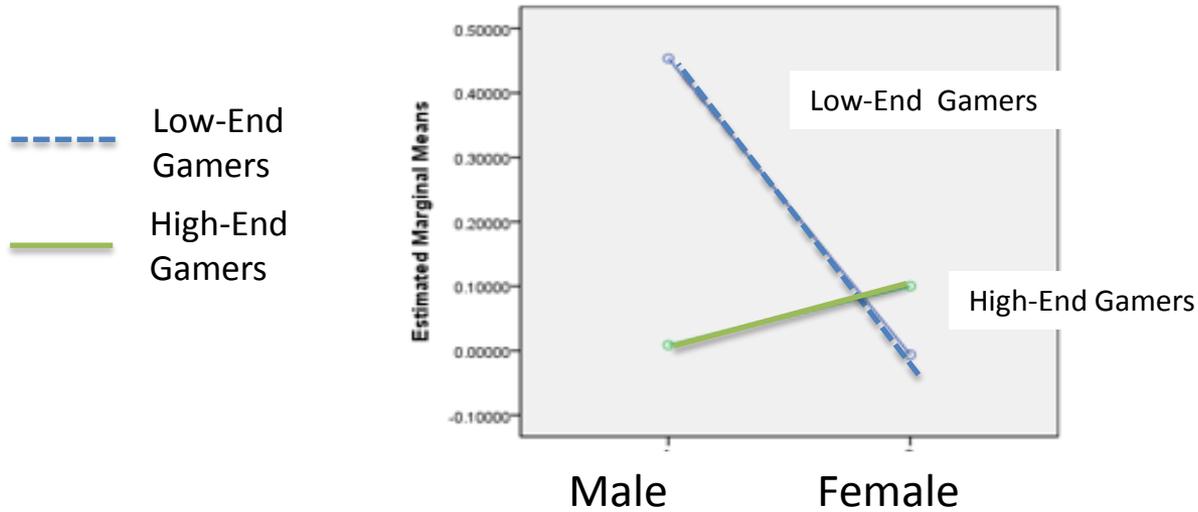
Covariates appearing in the model are evaluated at the following values: wordspedr = 105.31

Fear



Covariates appearing in the model are evaluated at the following values: wordspedr = 105.31

Positive Emotions



Covariates appearing in the model are evaluated at the following values: wordspedr = 105.31

Results- Gaming Variables

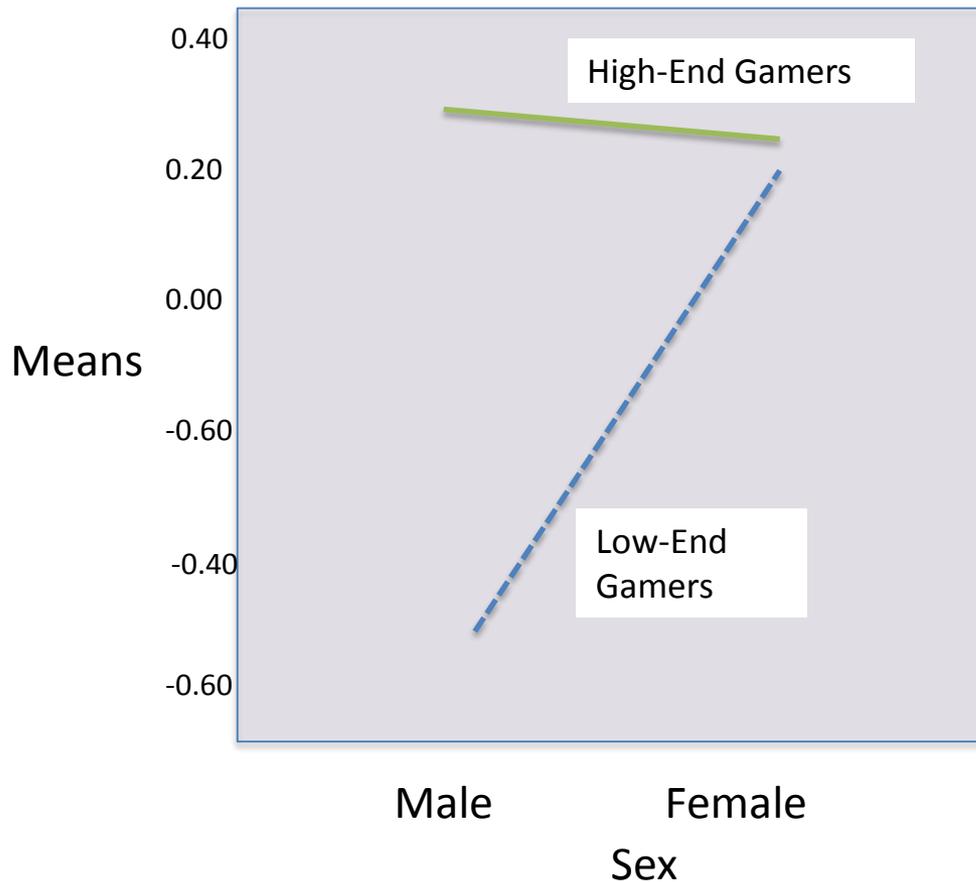
- Participants answered questions about their favorite genre.
- These genres were divided into seven categories.
- First-person shooters, action-adventure games, strategy, role-playing, driving and sports games were more popular among high-end male gamers.
- Females played more music, dance, and casual games. The group most likely to not report having a favorite game was low-end female gamers.

Results- Social Media Variables

- Factor analysis was conducted on video game and social media use.
- Factor 1: Video game variables all loaded together on this factor from which gaming groups were identified
- Factor 2: Social media for professional use
- Factor 3: Social media breadth and speed

Results- Media Use Variables

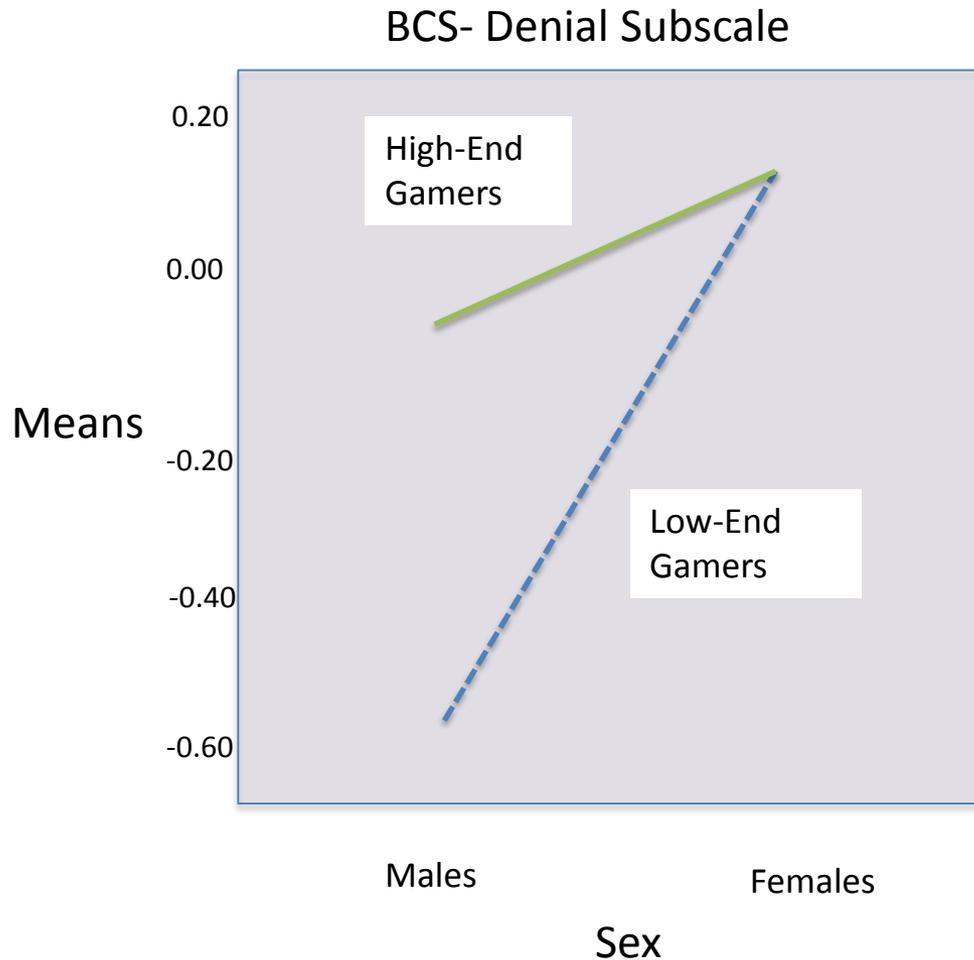
Factor 3- Social Media Use Speed and Breadth



Results- Brief Coping Scale

- Sex Main Effects:
 - Females use more social support, reassessment and denial.
 - Males use more alcohol and drugs and self-negativity
- Gamer Main Effects:
 - High-end gamers use more reassessment and denial.

Results- Brief Coping Scale



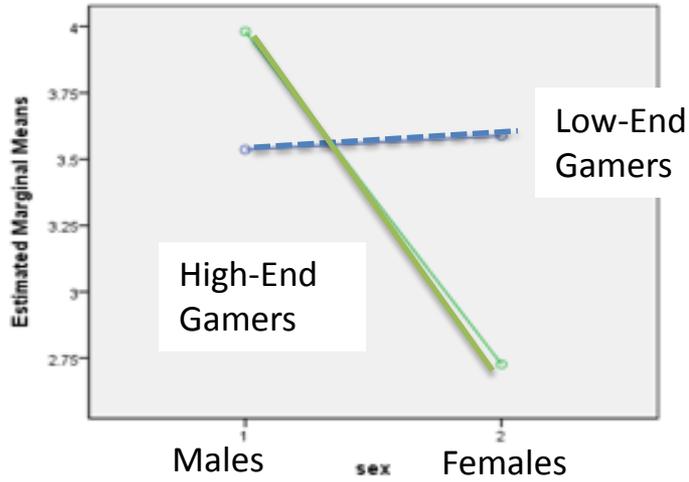
Stereotype Threat

- Participants completed the Social Identities and Attitudes Scale (SIAS).
- Irrelevant subscales were removed from analysis
 - Females scored higher on gender items and negative self
 - High-end gamers scored higher on negative self.

Results: Coping in Dreams

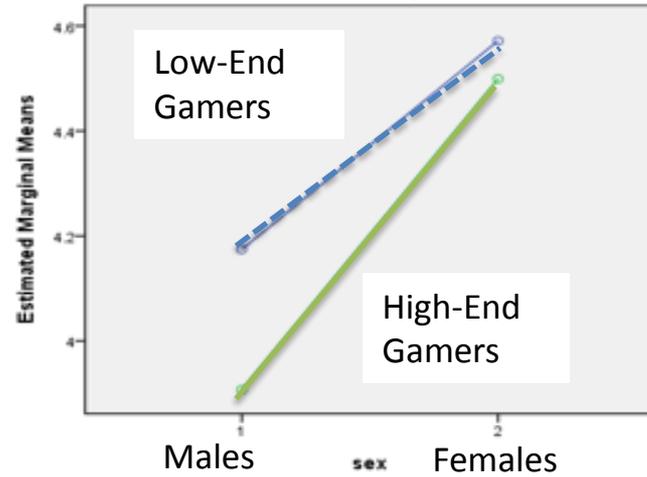
- Self report of frequency of each type of response to nightmare (fight, flight, tend, befriend)
- ANCOVA on Sex x gamer x type of response frequency with # of words covariate
- Main effect: type of response (Flight>Fight>Tend>Befriend)
- Interactions: sex x response
- Sex x gamer x response (1=fight; 2=flight; 3=trend; 4=befriend)

Fight Response in Dream



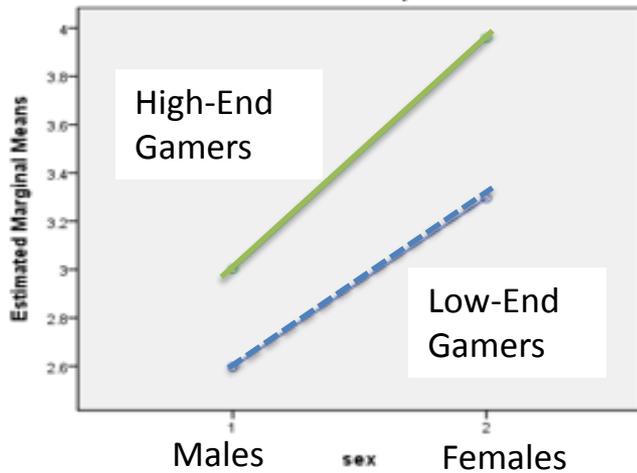
Covariates appearing in the model are evaluated at the following values: wordsperdr = 121.39

Flight Response in Dream



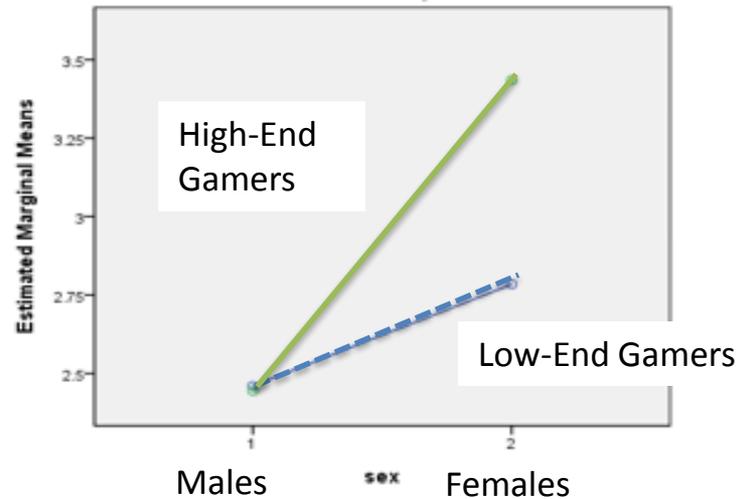
Covariates appearing in the model are evaluated at the following values: wordsperdr = 121.39

Tend Response in Dream



Covariates appearing in the model are evaluated at the following values: wordsperdr = 121.39

Befriend Response in Dream



Covariates appearing in the model are evaluated at the following values: wordsperdr = 121.39

Discussion

- Overall, results further indicated a male-female high end gamer difference in nightmare protection (males have it while females do not)
- Provided support for our hypotheses.
 - Genre: F>M casual types
 - Stereotype threat:
 - F>M gender & Negative self
 - Hi>Lo gamer groups negative self; no difference in gender
 - Coping style in waking
 - Hi>Lo gamer groups reassessment & Denial
 - Denial interacted with sex (low end males did not use denial as much)
 - Coping in dream
 - Male gamers use fight way more than female gamers

Questions?

References

- Ashforth, B., Kreiner, G. & Fugate, M. (2000). All in a day's work: Boundaries and micro-role transitions. *The Academy of Management Review*, 25(3), 472-491
- Cirucci, A. M. (2013a). First person paparazzi: Why social media should be studied more like video games. *Telematics and Informatics*, 30(1), 47-59.
- Coutts, R. (2008). Dreams as modifiers and tests of mental schemas: An emotional selection hypothesis. *Psychological Reports*, 102(2). 561-574
- Crick, F. & Mitchison, G. (1983). The function of dream sleep. *Nature*, 304(5922), 111-114
- Empson, J. (1993). Sleep and dreaming. England: Harvester Wheatsheaf
- Gackenbach, J., Ellerman, E. & Hall, C. (2011). Video game play as nightmare protection: A preliminary inquiry with military gamers. *Dreaming*, 21(4), 221-245
- Gackenbach, J., Darlington, M., Ferguson, M., & Boyes, A. (2013). Video game play as nightmare protection: A replication and extension. *Dreaming*, 23(2), 97-111
- Montangero, J. (2012). Dreams are narrative simulations of autobiographical episodes, not stories or scripts: A review. *Dreaming*, 22(3), 157-172
- Nahari, G., Glicksohn, J. & Nachson, I. (2009). Do textual features affect credibility judgment? It all depends on who is the judge. *Applied Cognitive Psychology*, 23(2), 288-295
- Schredl, M. (2006). Factors affecting the continuity between waking and dreaming: Emotional intensity and emotional tone of the waking-life event. *Sleep and Hypnosis*, 8(1), 1-5