

Individual differences in dreams and video game play

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Introduction

- The present inquiry of this study is the relationship between several individual difference variables, media use, and a dream which included electronic media.
- Participants were asked to report on a past dream involving some sort of electronic media, and to answer various questions pertaining to that dream, as well as about themselves as a dreamer.
- Focus in this presentation will be dreams with different media content and their associations.

Method: Participants

- Participants
 - There were 481 participants from MacEwan University,
 - first or second year of study.
 - 46% were male and 54% were female
 - 94% were between 19 and 25 years of age
 - They were awarded 2% credit upon completion of the online survey, which took approximately an hour.

Method: Dream

- Respondents were asked to provide a recent dream that they thought a movie, TV show, video game, social media, computer or cell phone was part of the dream in some manner.
- Following the dream collection,
 - asked when the dream occurred
 - what electronic media related activities they participated in the day prior to the dream

Method: Dream

- questions about their confidence at having each of six dream types (i.e., lucid dream, control dream, nightmare, bad dream, bizarre dream, and observer dream),
- Three questions on felt sense of presence
- 16 ratings of the intensity of emotions present in the dream (i.e., Anger, Awe, Arousal, Sexual, Anxiety, Fear, Guilt, Frustration, Sadness, Hatred, Happiness, Jealousy, Embarrassment, Ecstasy, Downheartedness, and Terror)

Method: Media Questionnaires

- Game Engagement Questionnaire
- Video Game Consumption Habits
- Favorite Genre Questionnaire
- Problem Video Game Playing Questionnaire
- Game Transfer Phenomena

Method: Individual Difference Scales

- Boundary Questionnaire
- Creative Experiences Questionnaire (Fantasy Proneness)
- The Big Five Questionnaire
- Dream Intensity Inventory

Results: Type of Media in Dreams

Type of Media in Dream				Total
		Male	Female	
	Movie	33	60	93
	Video game	93	47	140
	Social Media	9	31	40
	Computer	11	23	34
	Unknown	21	22	43
	None	27	41	68
	More than 1 media	8	6	14
Total		202	230	432

Results: Type of Media in Dreams

		Sex of Dreamer		
		Male	Female	Total
	Passive (movies/TV/YouTube)	33	60	93
	Interactive (video game/social media/computer)	102	78	180
Total		135	138	273

Passive Dream Example

- Based on the TV show grey's anatomy, I dreamt that i was a patient on the show after a mass casualty and all the characters on the show were their. The hospital was chaos and everyone was running around. I don't remember the reason for the accident but i remember a few of my older friends were there with me and there was 4 of us in one ambulance for they ran out of transportation. We were in ER beds all lined up together and my doctor was Meredith. I woke up during this point and the dream was over.

Interactive Dream Examples

- ... we were on a quest of some sort. This gave my dream self a sense of purpose. Generally when I am dreaming I am aware that I am dreaming. This was the case here. The dream began taking on a sort of video game feel. I suddenly was not really in the dream, but playing the game. I was having to move my character around ...
- We broke up over text and then not long after we were texting again getting back together. Between the time we broke up we saw each other in person but did not acknowledge each other. Everything we actually said to each other was said over text.

Results: Presleep

- No sex or media in dream differences in when the dream occurred
- Media Use day before the dream
 - F>M in computer use for work/study
 - M>F in computer/console/handheld use for gaming
 - F>M in computer/console/handheld use for social media
 - F>M in movies/TV/Videos

Results: Presleep

- No sex or media in dream differences in when the dream occurred
- Media Use day before the dream
 - Interactive>Passive in computer use for work/study
 - Interactive>Passive in computer/console/handheld use for gaming
 - Interactive>Passive in computer/console/handheld use for social media
 - Passive>Interactive in movies/TV/Videos

Results: Type of Dream

Dependent Variable	type of media in dreams	Mean
eDR4.2 Control dream - I was able to control some parts of the dream: Not Confident (1) - Very Confident (5)	Passive	2.166
	Interactive	2.478
eDR4.3 Nightmare dream - The dream woke me up because it was frightening: Not Confident (1) - Very Confident (5)	Passive	2.821
	Interactive	1.767

Results: Presence in Dream

type of media in dreams (1=passive, ie movie, youtube; 2=interactive, game, social media, computer)			
Dependent Variable	type of media in dreams	Mean	
Please rate the following statement, as it applies to you: - After the dream ended and I woke up I had to adjust back to waking reality. Strongly disagree (1) Disagree (2) Somewhat disagree (3) Neither agree nor disagree (4) Somewhat agree (5) Agree	Passive	4.448	
	Interactive	3.849	

Makes sense if Passive dreams also higher on nightmares

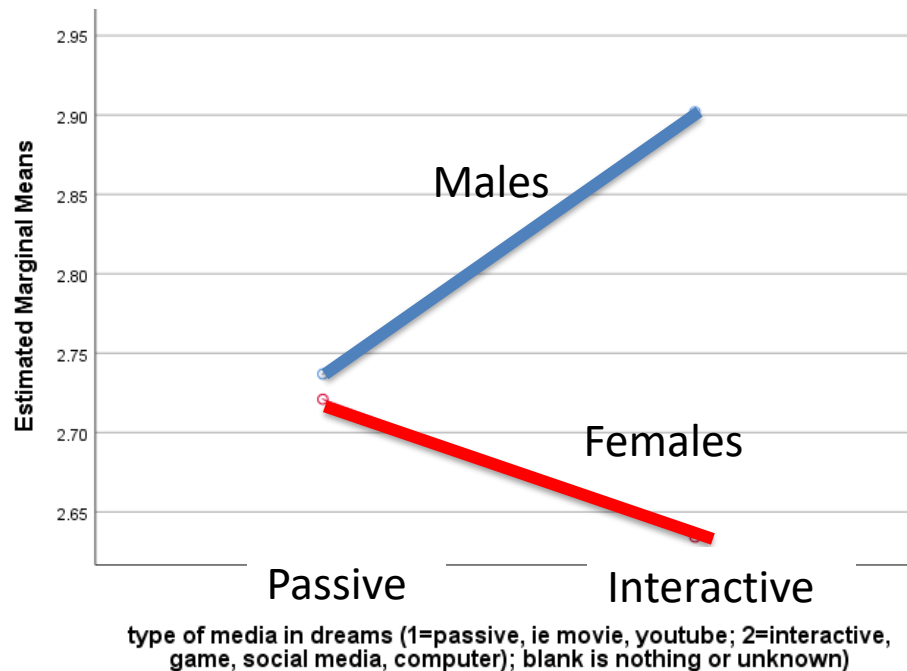
Results: Emotions in Dreams

- F>M fear/anger
- M>F happiness
- Passive>Interactive fear/anger

Again makes sense with Passive being more likely to be self labeled as a nightmare.

Results: Threat Simulation

- Passive > Interactive on threat in dream
- Nature (Aggressiveness) of threat & Severity of threat



Results: Lucidity Scale

Dependent Variable	type of media in dreams	Mean
insight	Passive	.385
	Interactive	1.496
realism	Passive	5.441
	Interactive	6.978
memory	Passive	3.670
	Interactive	4.315
negative emotions	Passive	4.476
	Interactive	2.778
positive emotions	Passive	1.172
	Interactive	2.090

All Interactive higher than Passive except
Negative emotions is reverse

Results: Individual Differences: Sex x Media in Dream

- Boundary scale – nonsignificant
- Creative expression (fantasy proneness) – nonsignificant
- Big 5 – nonsignificant on all five scales

Results: Gaming Individual Differences: Sex x Media in Dream

- Interactive > Passive
 - Game Consumption
 - Problem Video Game Play
 - Game Engagement
 - Game Transfer Phenomena
 - Visual
 - Audio
 - Mental
 - Behaviors

Results: Genre Preferences

Rotated Component Matrix^a

	Component		
	1 action/adven	2 casual	3 sports
VGFS1 Fighting: I don't play the genre (1) Less often (2) Every few weeks (3) 1-2 Days a week (4) 3-5 Days a week (5) About once a day (6) Several times a day (7)	.721	.068	.212
VGFS2 Puzzle: I don't play the genre (1) - Several times a day (7)	.094	.781	-.072
VGFS3 Action: I don't play the genre (1) - Several times a day (7)	.893	.082	.114
VGFS4 First-person shooter: I don't play the genre (1) - Several times a day (7)	.795	-.119	.242
VGFS5 Strategy: I don't play the genre (1) - Several times a day (7)	.650	.397	.070
VGFS6 Simulation: I don't play the genre (1) - Several times a day (7)	.452	.440	.328
VGFS7 Sports: I don't play the genre (1) - Several times a day (7)	.228	-.161	.807
VGFS8 Role-playing game: I don't play the genre (1) - Several times a day (7)	.746	.357	-.093
VGFS9 Adventure: I don't play the genre (1) - Several times a day (7)	.758	.374	.066
VGFS10 Racing: I don't play the genre (1) - Several times a day (7)	.058	.325	.816
VGFS11 Rhytem: I don't play the genre (1) - Several times a day (7)	.141	.706	.184
VGFS12 Survival horror: I don't play the genre (1) - Several times a day (7)	.512	.263	.366
VGFS13 Massive multiplayer online role-playing game: I don't play the genre (1) - Several times a day (7)	.733	.101	.169

Results: Genre Preferences: Sex x Media in Dream

- Interactive > Passive
 - Action/adventure
 - Casual
- Interactive = Passive
 - Sports

Conclusion

- Interactive media played/engaged with (gaming, social media, computer use) during the day is associated with better dream experiences
 - Nightmare protection
 - Increased lucidity associations
- Not associated with some individual difference variables
- Highly associated with various game play scales both positive (engagement, absorption) and negative (problem play)