The lucidity of gaming:
Why we looked and what we found

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First Lucid Dreams

- While in graduate school living in a log cabin outside of Richmond, VA

- Looking for new topic for dissertation

- Reading Monroe, Green, Garfield, Sparrow books

- Initially thought dreams were OBE's

- Then realized I was dreaming in the dream

- Seemed a good topic for a dissertation

- Tried various personal experiments with initial set of dreams

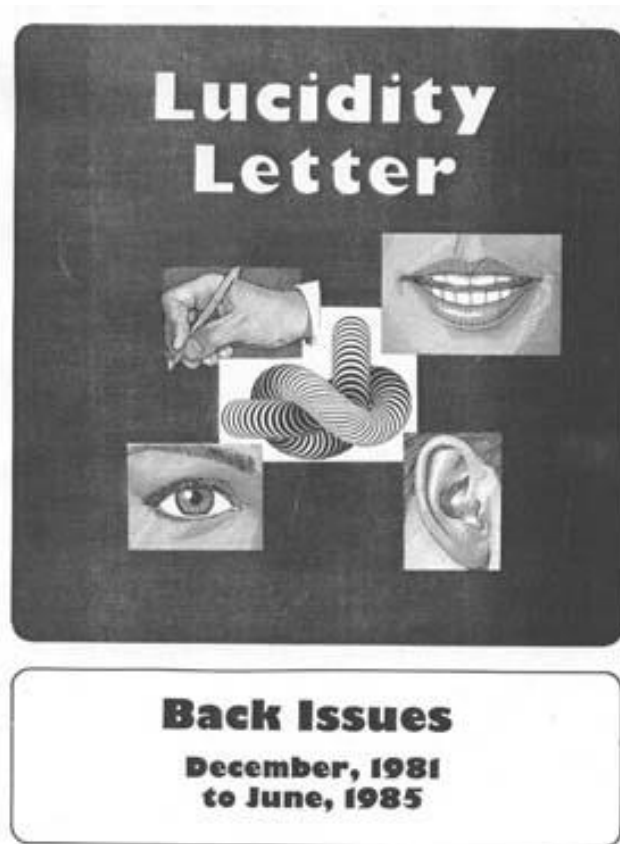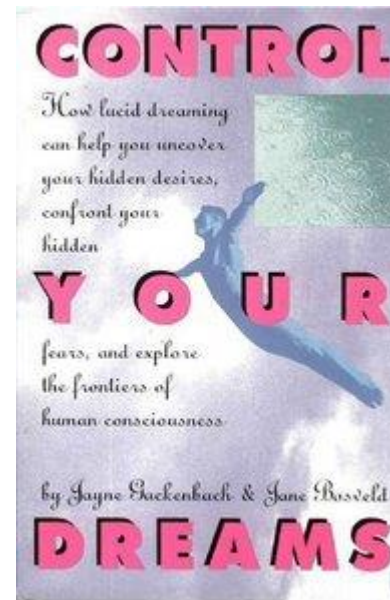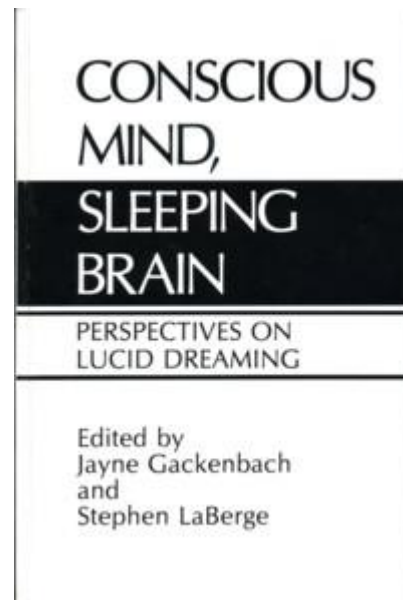- In this one I asked before I fell asleep that I wanted to "see my god"

NO

Watch what you ask for!

Lucidity Letter

Back Issues
December, 1981
to June, 1985

- 20 years of research into lucid dreaming with some lucid dreams but the most important dreams I recall were not lucid
- Dreams became a major way that I did my personal seeking

CONSCIOUS MIND, SLEEPING BRAIN
PERSPECTIVES ON LUCID DREAMING

Edited by
Jayne Gackenbach
and
Stephen LaBerge

CONTROL
How lucid dreaming can help you uncover your hidden desires, confront your hidden
YOUR
fears, and explore the frontiers of human consciousness

by Jayne Gackenbach & Jane Bosveld
DREAMS

asd
INTERNATIONAL

Beginnings of interest in media and dreams

- Research literature showed gamers have superior spatial skills
- I wondered if they also have lucid dreams because we were finding superior spatial skills in lucid dreamers
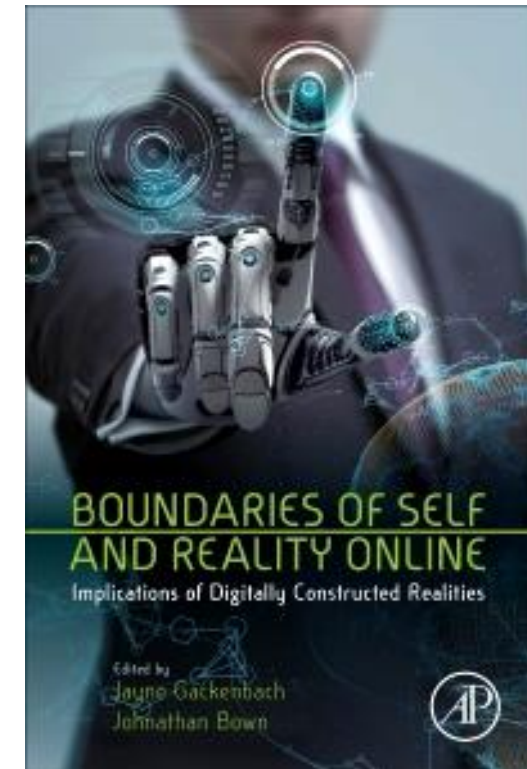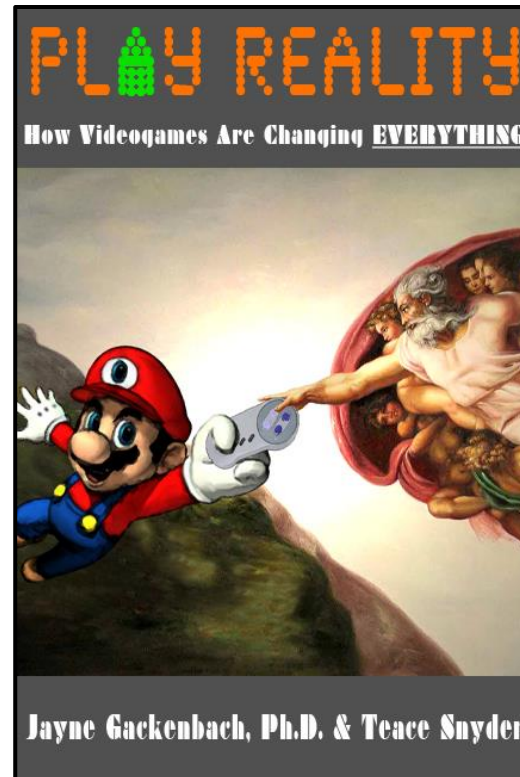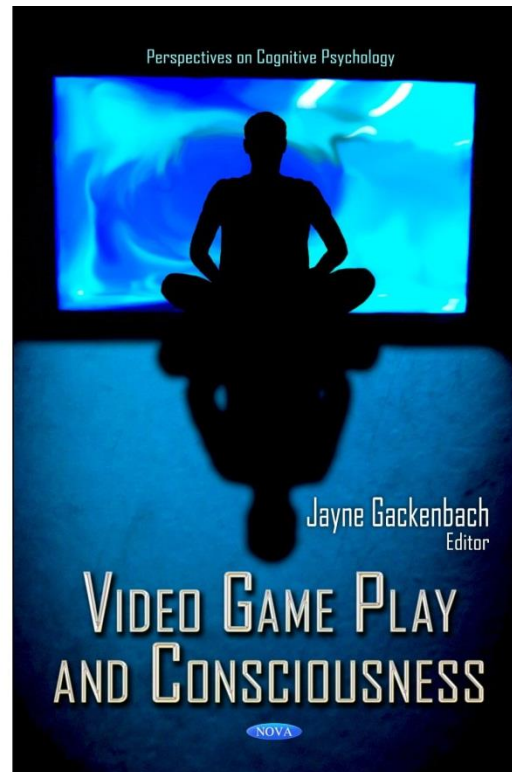
Media in Dreams

- There are a variety of ways to think about media in dreams or the effects of media on dreams
  - This is especially important given our increasing emergence in electronically mediated media
- The most obvious reason is the continuity hypothesis
  - And it does seem we dream about media
  - But is it simply incorporation of media into dreams? Are there other affects of media exposure on dreams?
- Another perspective is how media challenges our views of what is reality
  - This is the perspective that I've found most compelling in my program of research

Dream of a research participant was a conceptual turning point for me

So what is the fabric of reality and how is it informed by digital media experience?

Breaking the Frame of Digital, Dream, and Waking Realities

Jayne I. Gackenbach (MacEwan University, Canada) and Sarkis Hakopdjanian (MacEwan University, Canada)

Abstract

Just as our dreaming reality is constructed, our waking reality may also be constructed. While our waking reality influences our lives the most, other constructed realities also have impact. Yet, never before has such a large part of the population been so widely affected by another constructed reality beyond dreaming; specifically, our technologically constructed digital reality through video game play. One potential consequence of video game play is breaking the illusion or 'frame' of our dreams as reality through various dream experiences. Many of the world's wisdom traditions believe that waking reality is an illusion, and now this idea is supported by modern digital physics. While being aware of the illusory nature of waking reality is difficult, it may be easier to break the framework of perception or 'wake up' to the true nature of reality in alternative realities, such as digital and dreaming. This chapter will review the evidence collected in the video game and dream laboratory to explore how video game play is breaking the frame within dreaming realities.

Representational Space

Television, videos, and radio, for example, are organized for one–way communication.

change channels, the content of each experience is fixed

- Greenfield (1996), "video games make it possible for the first time to actively navigate through representational space" (p. 91).

Digital Physics

- If the essence of physical, material reality is information, this is analogous to constructions of digital reality, which is also composed of binary digits of information. As humanity continues to develop interesting and exotic technologies, we are not only developing and influencing society, but also glimpsing into the very nature of reality.

Enter Technology

- Our interaction with technology is also evolving. No longer content to simply observe and participate with technology on a screen in front of us, we are moving towards finding ways to *enter* technology - by creating a virtually simulated environment or a virtual reality

Reality: Virtual and Otherwise

- Waking reality is a mental construction

- Dream and altered state realities are alternative constructions

- Virtual and augmented reality are mediated constructions
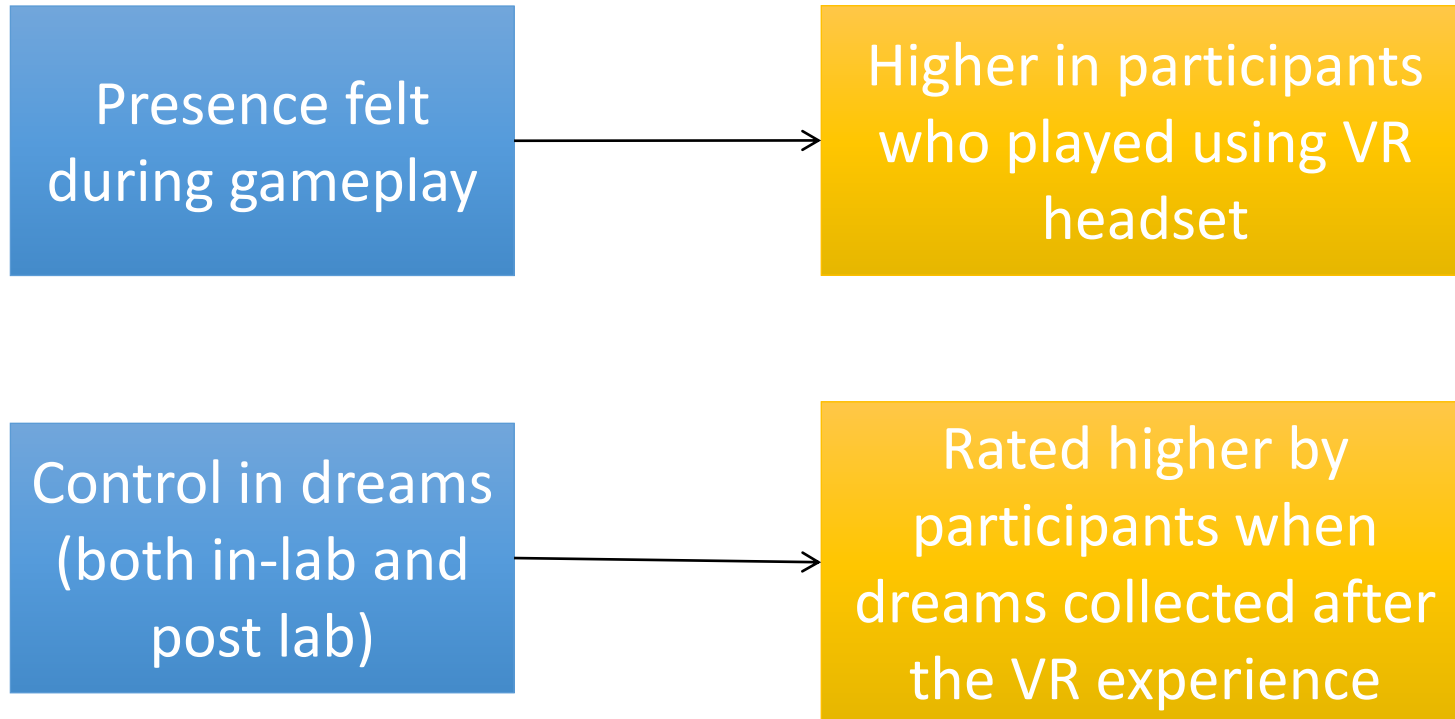
Multiple Realities

- We regularly participate in them
- While experiencing them we don't ask which is more real
- VR and AR enhance the "reality" of technologically mediated simulations

Emerging Implications of Virtual Reality Video Game Play on Dreams

Presented at Canadian Game Studies, June 2018 and hopefully in 2019 at IASD

By: Neelinder Rai

Braden Wagner

Jayne Gackenbach

Results

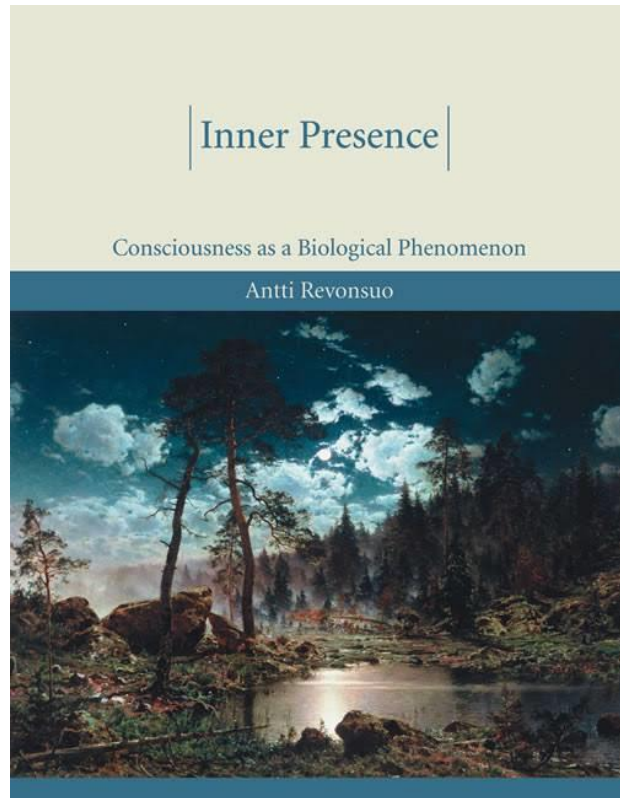|	
Presence felt during gameplay	Higher in participants who played using VR headset
Control in dreams (both in-lab and post lab)	Rated higher by participants when dreams collected after the VR experience

Inverse Presence

in which a real experience appears to be mediated

- *Drawing on news reports and an online survey, we identify 3 categories of this "illusion of mediation": positive (when people perceive natural beauty as mediated), negative (when people perceive a disaster, crime, or other tragedy such as the events of September 11, 2001, as mediated), and unusual (when close connections between people's "real life" activities and mediated experiences lead them to confuse the former with the latter).* (Timmins & Lombard, 2005, p. 492)

Revonsuo

- *The dream world is thus 'virtual' for precisely the same reason as a computer-generated synthetic environment is: in both cases I feel physically present (i.e., I am phenomenologically present!) in an unreal place where my physical body is not really present at all.* (Revonsuo, 2006, p. 114)

Breaking the frame

waking up to the true nature of "reality"

- Initially happens in dreams because dreams are less driven, if at all, by external stimuli. Yet dreams are a regular experience of an altered reality that occurs for about two hours out of every 24 nearly universally, with the exception of brain damage.

- The physical, material reality or "real" world has quite a stranglehold on one's senses because they are used to process input data (sights, sounds, tastes, etc.).

- Noticing the illusory nature of waking reality becomes quite difficult.

- When one moves to alternative realities, in this case digital and dream, or even drug-, hypnotic-, or fever-based, then it is much easier to break the frame or "wake up" to the reality of the frame, whether induced by a video game or dream.

- "waking up" is often spoken about in the meditative literature as well

Dreams collected 2006 through 2016

- Since 1998 35 research studies were conducted. 3769 dreams collected
- six of 35 samples were selected for further analysis. (2006 – 2016).
- All dreams were provided by introductory psychology students, who reported a recent dream and provided video game play history and gender information.
- Only online surveys were considered which had at least one self-reported recent dream.
- Only those with at least 50 words but not more than 300 were included. Excluded
  - Studies that specifically asked for nightmares
  - studies that investigated dreams as part of some sort of manipulation or a dream diary.
  - incomplete records of this information were omitted.

Video Game Play Frequency

- 2011 peak?
- Skyrim came out Nov 11 of 2011
- Males fill out surveys late, thus data collected in November and early December of 2011

1=2006; 2=2007; 3=2008; 4=2011; 5=2012; 6=2016

Dream Variables Coded by Judges
Trained and Coded in 2017
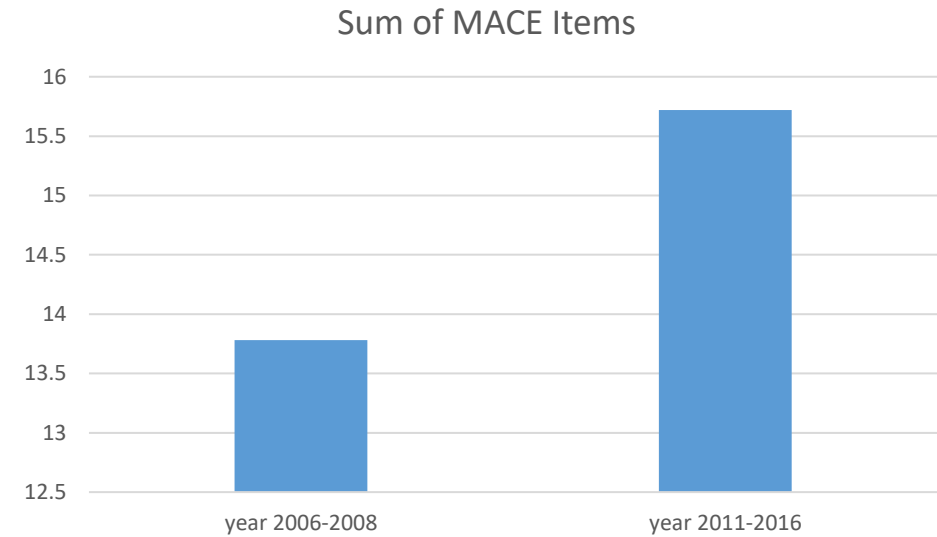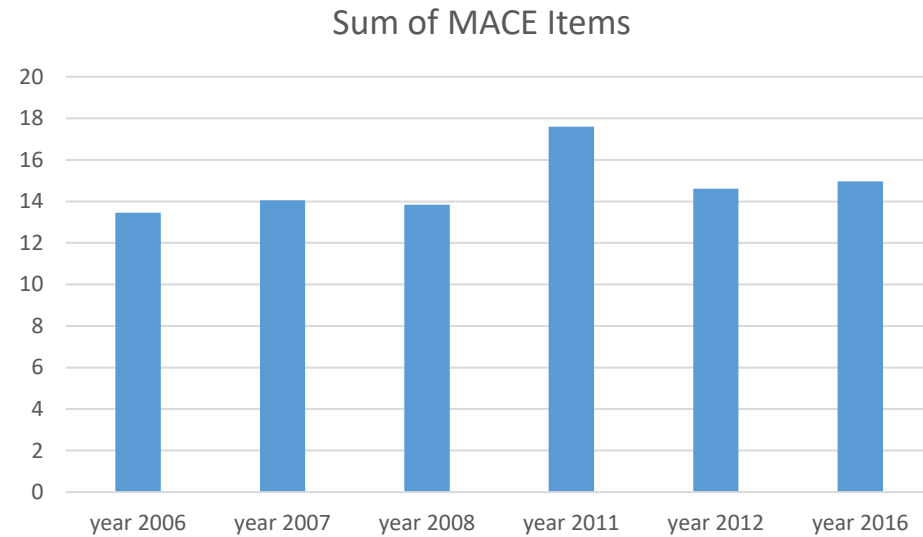# (sex of dreamer x year of data collection ANOVA's)

In the dream <u>games are mentioned</u>
    1. Non-video game (i.e., sports watching on TV or watching live or playing 'real' sports; casino gambling)
    2. Video game (i.e., shopping for a video game, dressed as a video game character but clearly NOT playing it, winning a x-box)

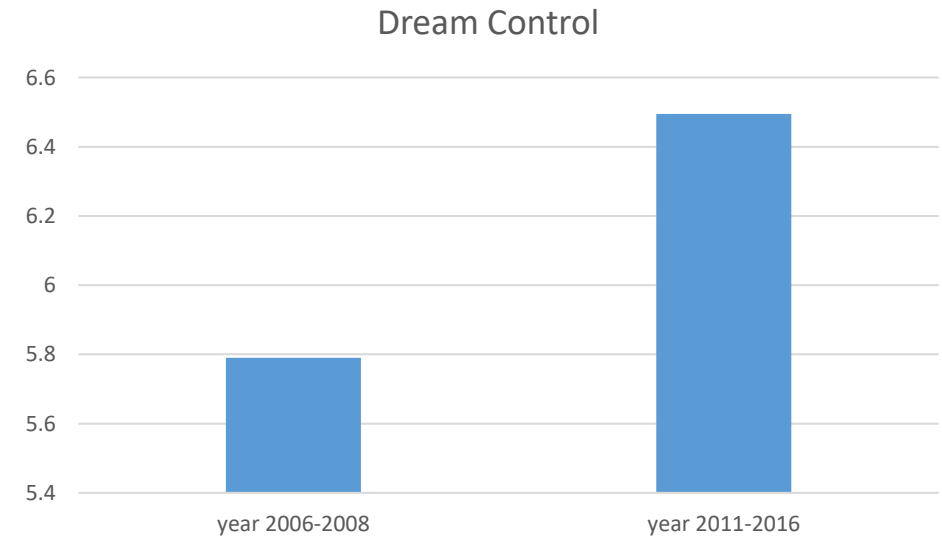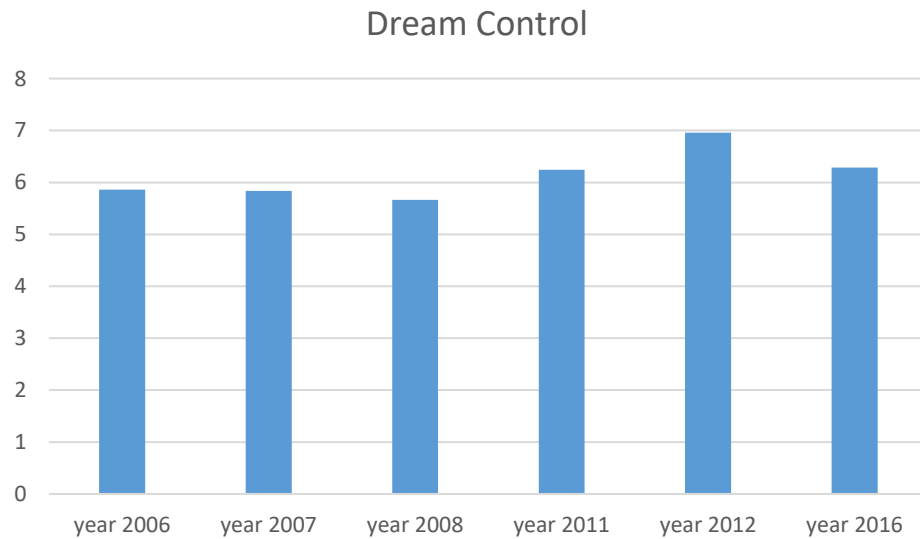Non-significance for dream is game and for playing game

1=2006; 2=2007; 3=2008; 4=2011; 5=2012; 6=2016

Dream Variables Coded by Judges
Trained and Coded in 2017
(sex of dreamer x year of data collection ANOVA's)
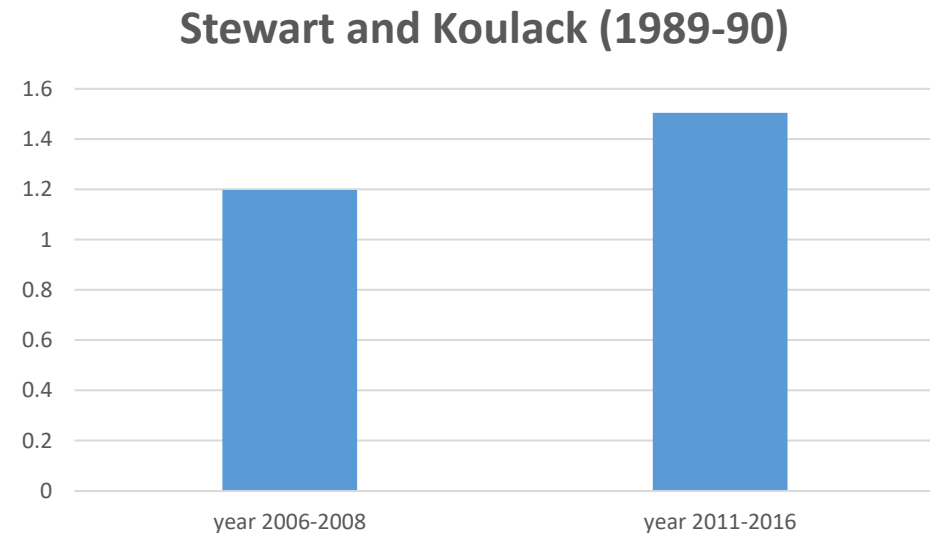
Dream Variables Coded by Judges
Trained and Coded in 2017
(sex of dreamer x year of data collection ANOVA's)

Dream Variables Coded by Judges Trained and Coded in 2017 (sex of dreamer x year of data collection ANOVA's)

- **Lucidity: Stewart and Koulack (1989-90)**

- <u>Nonlucid Dream:</u> **Score 1** if the subject reports a dream that does not meet the criteria for inclusion in Categories 2 through 6.

- <u>False Awakening:</u> **Score 2** if the subject reports that he or she dreamed of having a dream or that he or she dreamed of awakening but in fact remained asleep.
  - Examples: "I dreamed that I woke up and. . ."
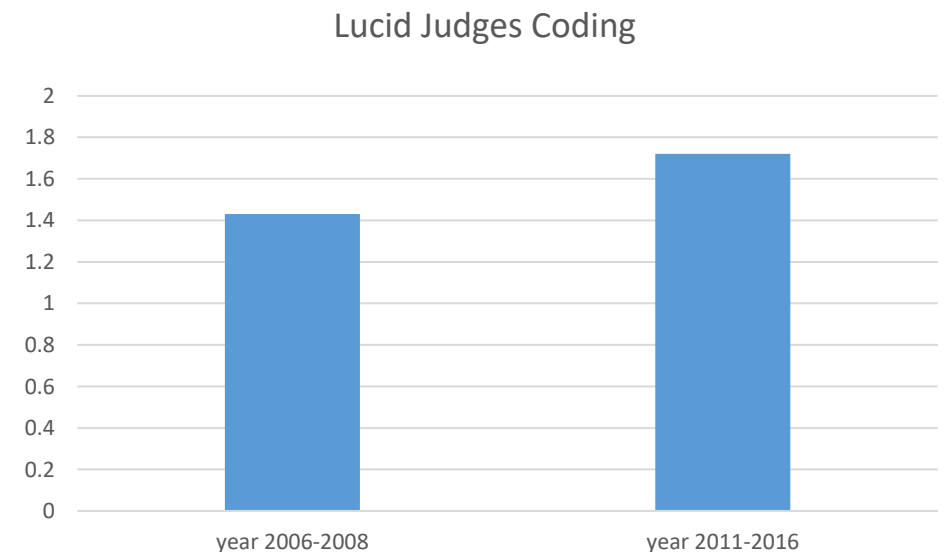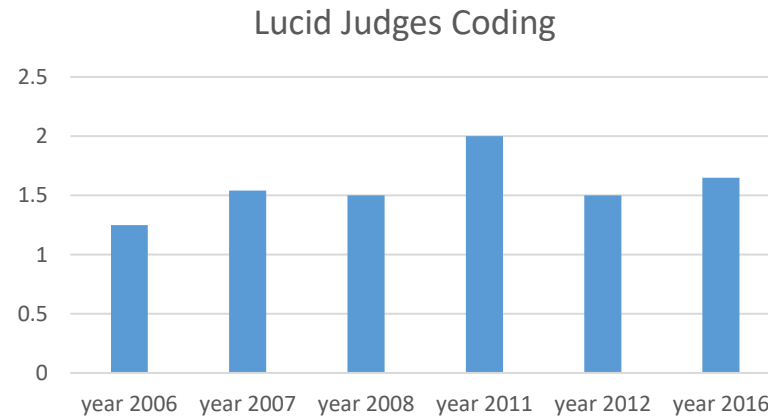 - "I dreamed I was asleep and dreaming about. .

Stewart and Koulack (1989-90)

Dream Variables Coded by Judges
Trained and Coded in 2017
(sex of dreamer x year of data collection ANOVA's)

- Lucidity

  1. There is no indication that the dreamer knew it was a dream while in the dream

  2. Unsure if the dreamer knew it was a dream while in the dream

  3. Yes, it's implied that the dreamer knew it was a dream while in the dream

  4. Yes, the dreamer clearly states that they knew it was a dream while in the dream

Lucid Judges Coding

Lucid Judges Coding

Conclusions

- Some indications that as hypothesized playing video games affects dreams and specifically questions around what is real