

# CULTURE'S EFFECT ON DESIRE FOR CONTROL IN VIDEO GAMES

Geoffrey Cook—University of Kansas  
MBA-Marketing  
MA-East Asian Studies

James Lemieux-Committee Chair  
William Tsutsui- Committee Chair  
Maggie Childs-Committee Member

# Outline

- Introduction
- Research Problem
- The Industry's Answer
- Measurement Scales Used
- Methodology
- Results and Discussion
- Limitations and Future Research

# Introduction

## Industry Information (positive growth prospects)

- US market had over 20B in total sales in 2008 (NPD group)
- Global industry estimated to be worth \$48.9B by 2011

(PricewaterhouseCoopers report. Can be found at Reuters, "Video-game sales overtaking music," <http://articles.moneycentral.msn.com/Investing/Extra/VideoGameSalesOvertakingMusic.aspx>, (accessed November 14, 2008).

## Industry Information (information that should concern US developers)

- US market estimated to only make up 25% of the global market by 2011 (Ibid.)
- Largest region estimated to be Asia-Pacific. (Ibid.)

- US developers relatively unsuccessful in largest video game market in Asia-Pacific region, Japan

**Examples:** \***Software**= no US titles in Japan's 2007 video game top-ten

**Hardware**= Xbox 360 sales in Japan are a fraction of competitors'

\* See last slide for list of 2007 top-ten titles in Japan

# Introduction—Different games provide different levels of control

## Final Fantasy VII

- Camera= Fixed
- Battles =Turn-based
- Character Appearance= Relatively Static
- Storyline=Relatively Structured



Grand Theft Auto Series

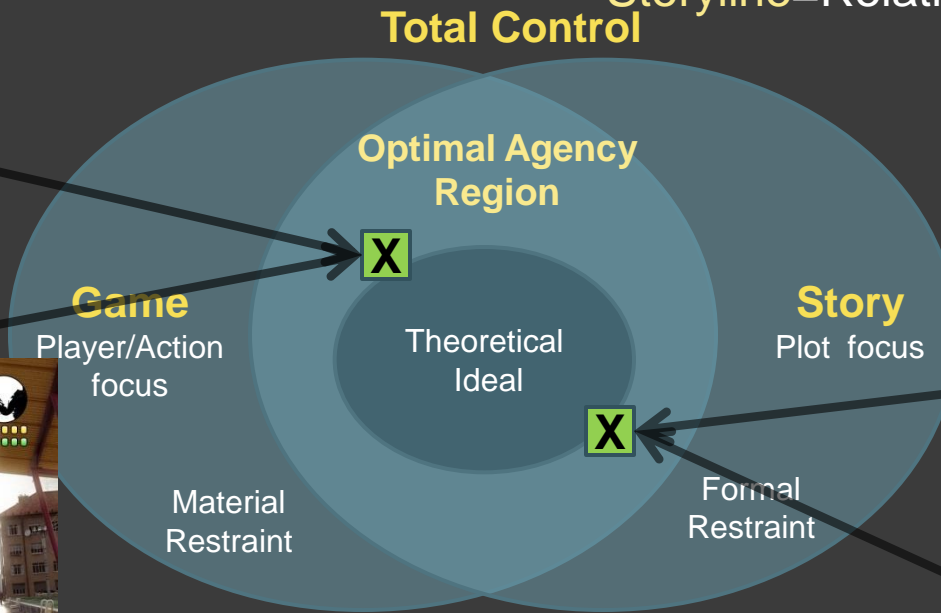


Final Fantasy VII



## Grand Theft Auto

- Camera= User-controlled
- Battles =Real-time
- Character Appearance= Alterable
- Storyline =Relatively Unstructured



**Total Control**

**Optimal Agency Region**

Theoretical Ideal

**Game**

Player/Action focus

**Story**

Plot focus

Material Restraint

Formal Restraint

**No Control**

## Grand Theft Auto

- Camera= User-controlled
- Battles =Real-time
- Character Appearance= Alterable
- Storyline =Relatively Unstructured

Original graph from , Janet Murray, "From Game-Story to Cyberdrama," in *First Person: New Media as Story, Performance, and Game*, ed. Noah Wardrip-Fruin and Pat Harrigan (Cambridge: MIT Press, 2006), 9.

# Research Problem

Do Americans and Japanese differ in the level of control that they want in video games?

# Industry's Answer: 'Yes, they do'

## Japanese Video Gamers:

- Want *less* control in their video games, and prefer story-centric games.

### Why?

- According to developers, Japanese gamers become **uncomfortable** with the **uncertainty** that comes with increased control.

## American Video Gamers:

- Want *more* control in their video games, and do not prefer story-centric games.

### Why?

- According to developers, American gamers **enjoy the uncertainty** that comes with increased control.

### Sources

- Kalata, Kurt. "Clash of the Cultures." January 18, 2007. <http://www.1up.com/do/feature?cld=3155815>
- JC Barnett, "The Difference," October 19, 2006 <http://japanmanship.blogspot.com/2006/10/difference.html>

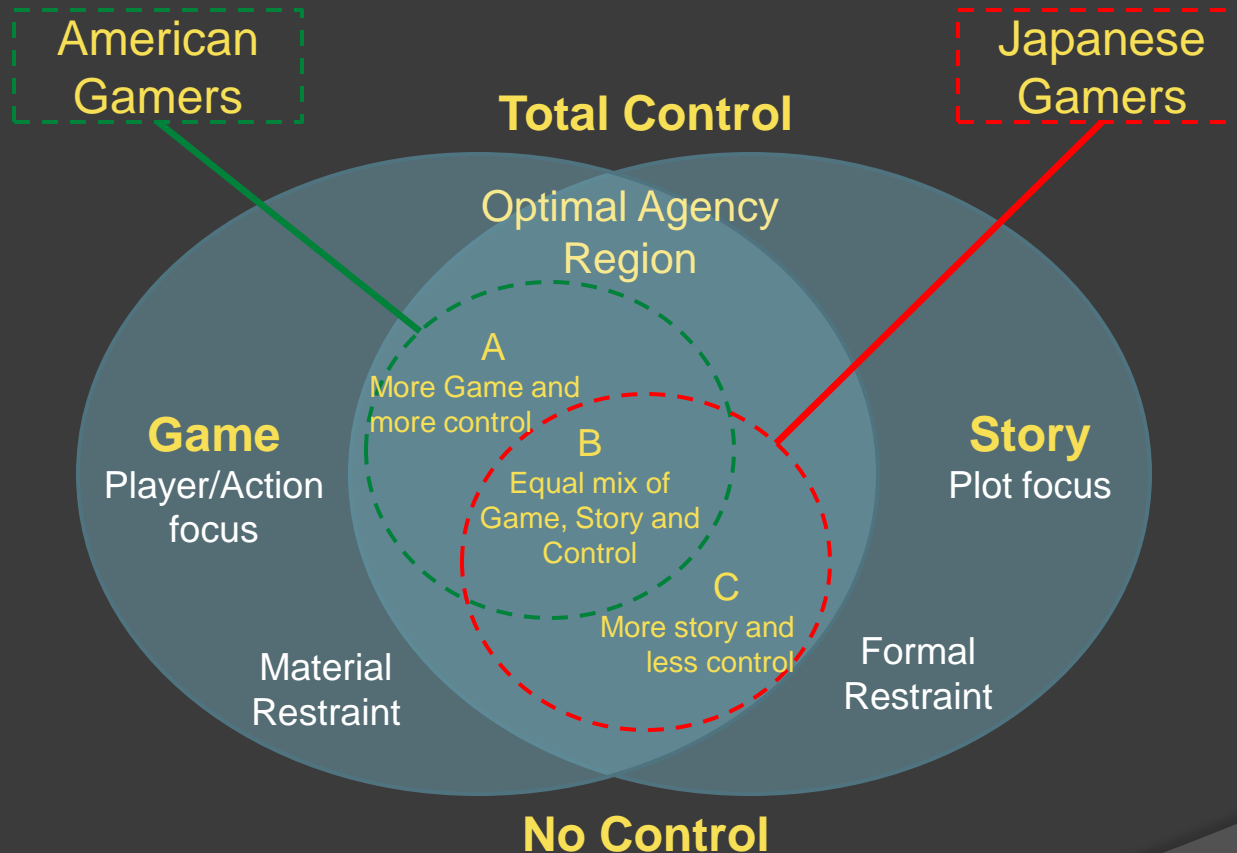
# Developer's Quote

“Culturally speaking, Japanese culture is firmly rooted in wet-rice agriculture ...Japanese want to be able to plan, they want to have guidance. To put it simply, Japanese people feel uncomfortable with the unknown....Westerners, on the other hand, seem to be excited by the unknown. For instance, [coming from] a hunting and trapping society, an American may go deer hunting and encounter a bear. Japanese would be scared by this encounter, whereas the American will probably shoot the bear and go back excited that he got a bear instead of a deer. The unknown encounter becomes even better than the known. I feel this is the key difference”.

Quoted by Keiji Inafune, lead developer for *Dead Rising*

- Makes assumption that there is a connection between real life and video games
- Attributes presumed difference to a difference in culture, when the difference may be due to individual personality.

# Industry's Answer—Graphical Representation

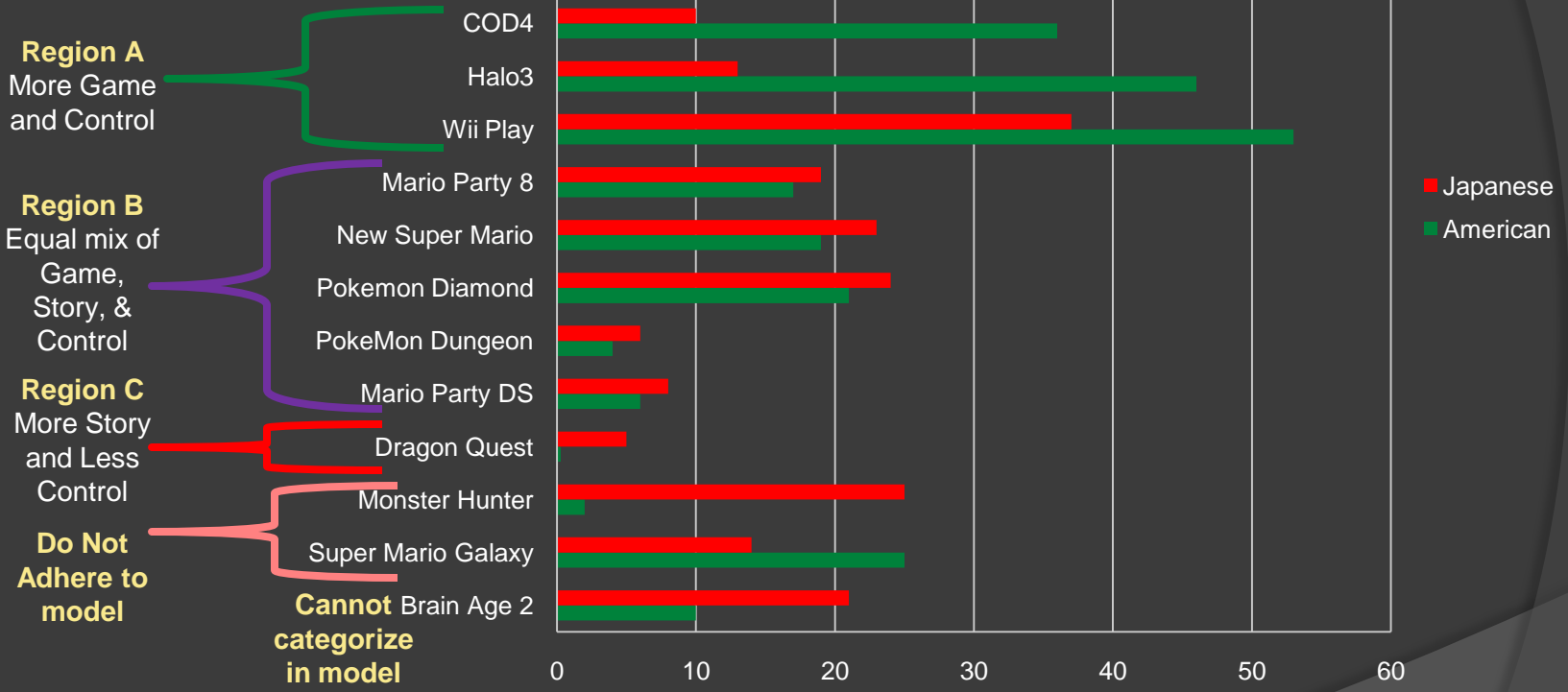




# Some Evidence that Support's the Industry's Answer

**Proportion of Market that Bought Title**  
(Combination of top-selling games in Japan and US in 2007)

Software Title



**Percentage of Market that bought software**

Sales Data from vgchartz.com (viewed November 2008)

# Measurement Scales Used

## 1) Questions about Desirability of Control in Video Games (VG):

- Control over the Character's movement and speech
- Control over the Character's appearance
- Control over the in-game camera
- Control over the Storyline

## 2) Uncertainty Avoidance Index (UA): Measures how much a culture avoids uncertainty with:

- General Stress Level
- Rule and Instruction Orientation

**\*Found that Japanese avoid uncertainty more than Americans.**

*Source: Geert Hofstede, Culture's Consequences: second edition, (London: Sage Publications, 2001).*

## 3) Desire for Control Scale (DC): Measures level of control a person desires in everyday life with:

- General Desire for Control
- Preparation-Prevention
- Decisiveness
- Avoidance of Dependence
- Leadership

**\*Studies show that Japanese have lower desire for control than Americans**

*Sources: 1) Jerry Burter, Desire for Control: Personality, Social, and Clinical Perspectives, (New York: Plenum Press, 1992).*

*2) Li-Jun Ji, Kaiping Peng, and Richard Nisbett, "Culture, Control, and Perception of Relationships in the Environment," Journal of Personality and Social Psychology (2000): 943-955.*

*3) John Reich, and Alex Zautra, "Experimental and Measurement Approaches to Internal Control in At-Risk Older Adults," Journal of Social Issues (1991): 143-158.*

[www.geoffreyMcook.com](http://www.geoffreyMcook.com)

Email: [geoff@geoffreyMcook.com](mailto:geoff@geoffreyMcook.com)

# Methodology

Online Survey for Japanese and Americans-  
([www.geoffreyMcook.com/survey2](http://www.geoffreyMcook.com/survey2))

## Example Questions

**Video Game Control (VG) (18Q)**- “A video game is more entertaining when I am able to affect the storyline with my actions.”

1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree  
(5-point Likert Scale)

**Uncertainty Avoidance (UA) (5Q)**- “Company rules should not be broken—even when the employee thinks it is in the company's best interest.”

1) Strongly Disagree 2) Disagree 3) Neutral 4) Agree 5) Strongly Agree  
(5-point Likert Scale)

**Desire for Control (DC) (20Q)**- “I prefer a job where instructions have a lot of control over what I do and when I do it.”  
(7-point Likert Scale)

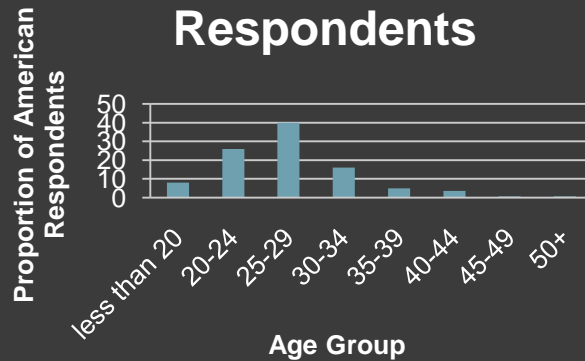
# Basic Data Statistics

American Respondents: 138

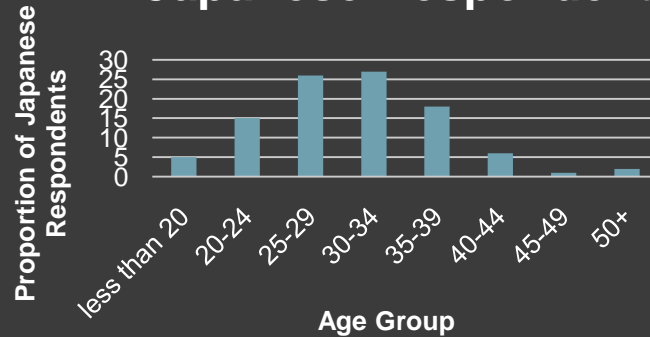
Japanese Respondents: 199

Total Respondents: 366

## Age Distribution of American Respondents



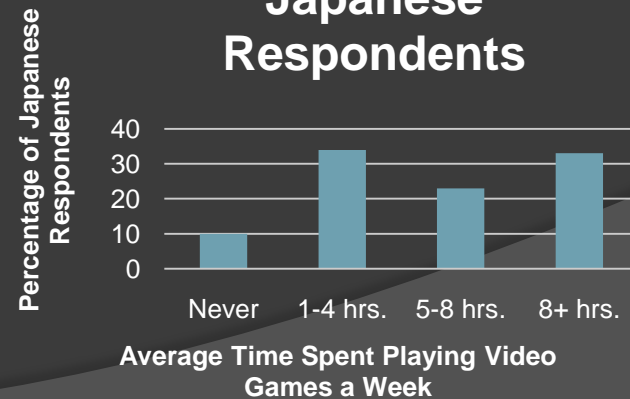
## Age Distribution of Japanese Respondents



## Playing Frequency of American Respondents



## Playing Frequency of Japanese Respondents



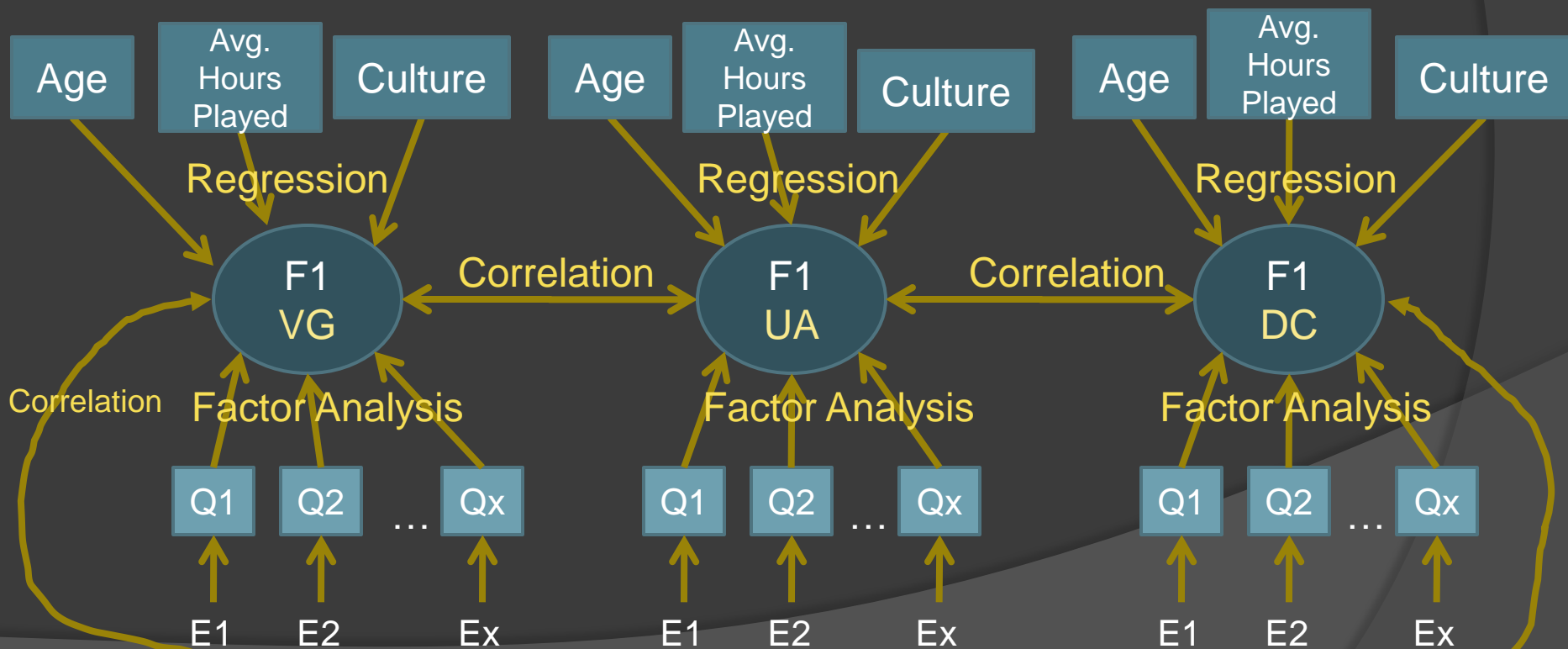
# Analysis

**Factor Analysis**- Conducted on each of the three scales (Desire for Video Game Control, Uncertainty Avoidance, and Desire for Control)

**Linear Regression**- For each factor,

$$\text{Factor}_i = \beta_0 + \beta_1 \text{ age} + \beta_2 \text{ cultural affiliation} + \beta_3 \text{ avg. hours played a week} + \epsilon_i$$

**Correlation Analysis**- Conducted between all factors found in earlier analysis



# Linear Regression Results

Factors	Desire for Control in Video Games (VG)	Rule and Instruction Orientation (UA)	General Stress Level (UA)	Desire for Control & Leadership in Everyday Life (DC)	Avoidance of Control and Leadership in Everyday Life (DC)
<b>Cultural Affiliation</b>	P<.0001 Coefficient <b>.43940</b> <b>Japanese</b>	P< .0001 Coefficient <b>.38814</b> <b>Japanese</b>	P<.0001 Coefficient <b>.84640</b> <b>Japanese</b>	P<.0001 Coefficient <b>-.48754</b> <b>American</b>	P=.0033 Coefficient <b>.30864</b> <b>Japanese</b>
<b>Avg. Hours Played</b>	P=.0109 Coefficient <b>-.13894</b>	P=.4215 Coefficient .03452	P=.4917 Coefficient .04036	P=.6918 Coefficient -.02132	P=.7293 Coefficient .01821
<b>Age</b>	P=.0503 Coefficient -.01441	P=.5958 Coefficient -.00310	P=.9603 Coefficient -.0003921	P=.9469 Coefficient .00048729	P=.0672 Coefficient -.01315

**Americans**= coded as 1 in model

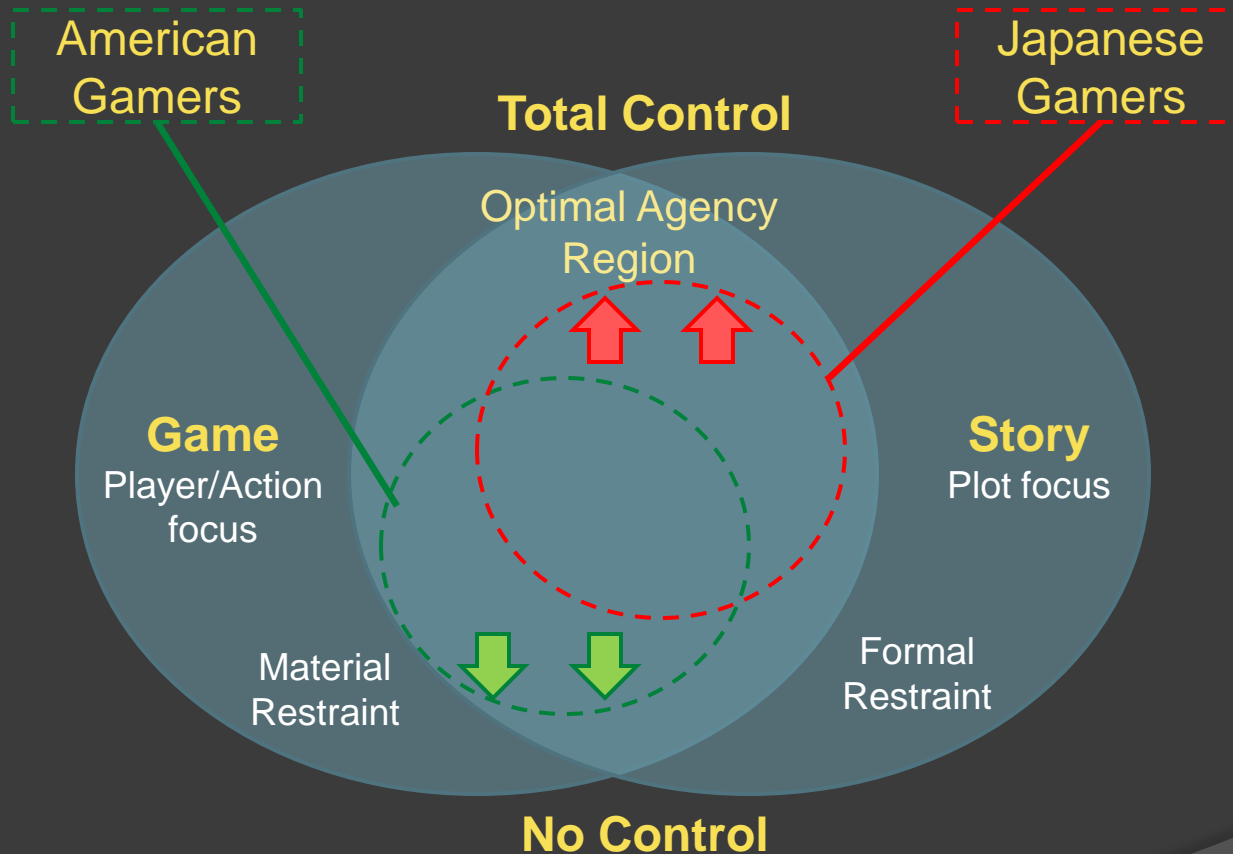
**Japanese**= coded as 2 in model

I.e. Positive coefficients mean that the factor increases as one becomes Japanese

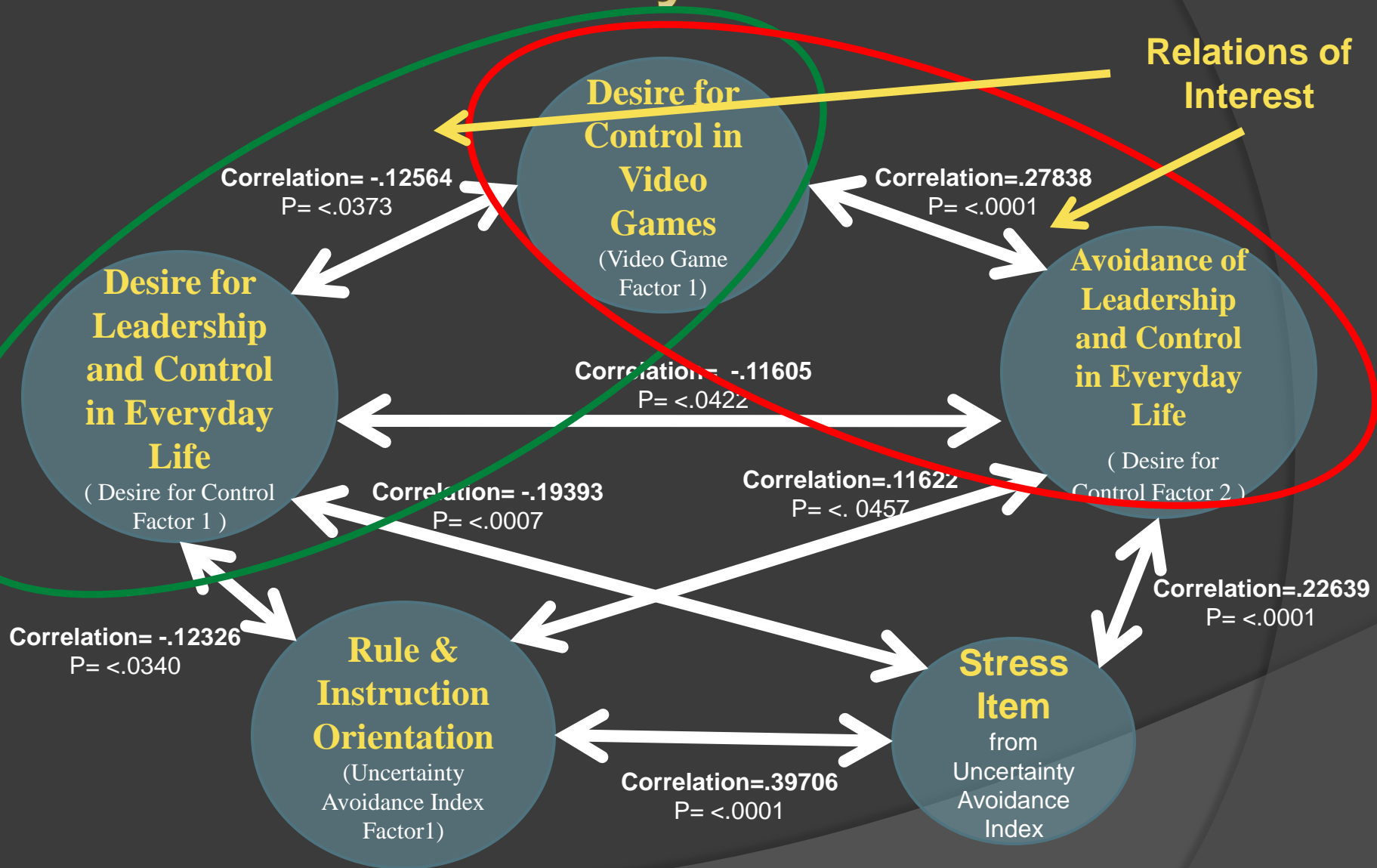
**Green**= Significant

**Red**= Insignificant

# Summary of Results



# Correlation Analysis Results





# Correlation Analysis Results

Empirical data suggests that:

- 1) Gamers who desire control in their everyday lives want **less** control in their video games.
- 2) Gamers who avoid control in their everyday lives want **more** control in their video games.

# Limitations and Future Research

- 1) Non-response bias
- 2) Only measured 2 aspects of culture

## Future Research

- 1) **Should ask about user's playing motivation**—will help prove if Bargh's and McKenna's argument is valid in video games.  
John A. Bargh, and Katelyn Y.A. McKenna, "Plan 9 From Cyberspace: The Implications of the Internet for Personality and Social Psychology," Personality and Social Psychology Review 4, no.1 (2000), <http://psr.sagepub.com/cgi/content/abstract/4/1/57>.
- 2) **Explore the possibility of country-of-origin bias**
- 3) **Structural modeling analysis**—will allow for analysis of causal and indirect relationships.

# Thank you, Questions or Comments?

## Contact Information:

Geoffrey Cook—University of Kansas

[geoff@geoffreyMcook.com](mailto:geoff@geoffreyMcook.com)

[www.geoffreyMcook.com](http://www.geoffreyMcook.com)

This presentation was based off of my study found in  
*“Methods to Market Mario: An Analysis of American and  
Japanese Preference for Control in Video Games”*

Thesis available at my homepage and at the University of Kansas Digital Library

# Appendices

# Best-Selling Video games of 2007 in Japan

<u>Rank</u>	<u>Title</u>	<u>Console</u>	<u>Units Sold</u>
1	Wii Sports	Wii	1,911,520
2	Monster Hunter	PSP	1,489,898
3	Wii Play	Wii	1,487,484
4	Pokemon Mystery Dungeon	NDS	1,256,516
5	Mario Party DS	NDS	1,232,644
6	New Super Mario Bros.	NDS	1,176,939
7	Pokemon Diamond and Pearl	NDS	1,094,389
8	Mario Party 8	Wii	1,053,934
9	Dragon Quest IV	NDS	1,052,827
10	Brain Age 2: More Training in Minutes a Day!	NDS	1,033,933

Figures found from: [http://en.wikipedia.org/wiki/2007\\_in\\_video\\_gaming](http://en.wikipedia.org/wiki/2007_in_video_gaming), (accessed on November 25, 2008).