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# Online Game Advertising and Chinese College Students: Attitudes, First- and Third-Person Effects

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Online Game Advertising and Chinese College Students:  
Attitudes, First- and Third-Person Effects

by

Yan Tang

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts  
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## **Dedication**

This thesis is dedicated to my parents.

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## **Abstract**

The purpose of this study is to explore the relationships among Chinese college students' attitudes toward online games and online game advertising, their perceived influence of online game advertising on themselves and others, and their attitude toward restrictions on online game advertising. The growing popularity of online games and the frequent use of advertising in promoting online gaming activities make it necessary to examine empirically the relationships among these variables. Based on a survey among 518 Chinese college students, the study found support for the mediating role of the third-person effect. It also found evidence for the first-person effect through the mechanism of looking glass perception.



## **Chapter One**

### **Introduction**

In China, the generation born in the 1950s grew up with newspapers and magazines; the generation born in the 1960s~1970s grew up with radio; the generation born in the 1980s~1990s grew up with television. Today, the new generation in China is growing up with the Internet and computer-mediated media (Ying, 2007). Communication technology has changed not only how Chinese people work, but also how they communicate and entertain. According to the state Statistical Report on Internet Development in China, there are 642 million Internet users in China in 2015, with nearly 31 million new Internet users added in 2014 alone. The report also points out that online gaming plays a vital role in the growing Chinese Internet market (CNNIC, 2015).

An online game is played via the Internet or computer network connection (Rollings & Adams, 2006). Based on the technical platform, online games can be classified into PC game, tablet game, smartphone game, and video game (Terlutter & Capella, 2013). With the evolution and change in the games market, online games are also regarded as a genre of video games. For example, the name of massively multiplayer online role-playing games (MMORPGs) is derived from role-playing video games and massively multiplayer online games.

With 4.17 billion players, the total revenue of the Chinese online game market has reached 1,144.8 billion Yuan (approx. \$190 billion) in 2014 (Game Chinanews, 2014). Started in

2000, there are now more than 200 companies in the online game industry (Ying, 2007). Furthermore, online games account for nearly 53% of the total gaming market share, and webpage games account for nearly 17%, according to a report from the China Game Player Club (Game Chinanews, 2014).

The rapid growth of the online game market must be attributed at least in part to aggressive and expansive marketing activities such as advertising. Cauberghe and De Pelsmacker (2010) predicted that the market would expand through increasing investment in advertising. With the relaxation of Chinese Advertising Law in 2014, the online game market has an even brighter future. However, like all other types of advertising, online game advertising has been receiving some criticism about its content. Studies have indicated that game marketing would amplify the negative impact of gaming on Chinese society and culture (e.g., Arsethy, 2001; Humphreys, 2005). Cao (2010), for example, examined Chinese video game advertising and concluded that much of it promoted violence and stereotypical sex or gender roles.

Despite criticism, advertising has become an indispensable marketing tool in the hyper-competitive Chinese online game market. Data from iAdTracker, an advertising measurement of iResearch, shows that the expense on game advertising reached 830 million Yuan (approx. \$138 million) in 2012, of which the three largest online game companies (NetEase, Tencent and Shenda) were the biggest spenders (Millward, 2014). Game advertising has also become a lucrative revenue source for advertising agencies (Robinson, Callister, Clark, & Philips, 2008). Some even regard an online game ad as the epitome of a game (Burgess, Burgess, & Stermer, 2007). Typically an online game ad summarily shows the audience what the game is about, including its attractive features, characters, and story line (Robinson et al., 2008).

A related factor leading to the popularity of online games is the increasing purchasing power of its target consumers; the majority of whom are males 16 to 30 years old, according to China Game Player Club (Ying, 2007). On average, these young players spend six hours per day on games; most of them are high school or college students who live in cities and are financially supported by their parents (People's Daily Online, 2007). This young generation has become the prime target of online game advertising. While still going through the process of building their social identities, these young Chinese consumers are also the most vulnerable to the persuasive power of online game advertising (Scharrer, 2004). Indeed, previous studies have pointed out game advertising contributes significantly to brand awareness and sales (e.g., Ducoffe, 1995; Wahl, 2003).

Intended or not, game advertising has also been associated with excessive use of the Internet known as Internet addiction (IA). Numerous studies have examined the negative psychological and physiological consequences of Internet Addiction Disorder (IAD), a medical term for the symptoms of IA (e.g., Mafe & Blas, 2006; Widyanto & Griffiths, 2006). For example, IA is shown to be related to female eating disorders, marriage breakdowns and loss of jobs, etc. (Tao & Liu, 2009; Rodgers, Melioli, Bui, Laconi, & Chabrol, 2013). Using the Internet excessively is also related to students' academic failures (Whang, Lee, & Chang, 2003).

One of the most shocking stories of Internet addiction in China is from Li Meng, a twenty-something video game addict. According to news reports, Li spent almost six years in a small Internet cafe playing video games. During that time, he was even reluctant to bath himself. Li claimed that only two things could make him leave his chair: food and restroom (IBTimes Staff Reporter, 2013). More recently, a young Chinese couple was so addicted to online games

that they sold their two children to sustain their addiction. During investigation, the couple admitted that all the money they received from selling their children was used to buy in-game equipment (Kosoff, 2014). These and other stories may be the tip of an iceberg of the problem, because statistics showed that there are 24 million Internet addicts in China (Hayoun, 2014).

In addition to inducing Internet addiction disorder, the use of celebrity endorsements in online game advertising has also received serious criticism. Like fashion and cosmetics advertising, online game advertising often promotes game brands through the use of well-known persons. Statistics showed that 83.2% of the characters in Chinese ads are female, and 80% of these female portrayals are overly sexual or sexually suggestive (Cao, 2010). It is easy to find female celebrity endorsements for both foreign (e.g., Riot Games and Blizzard) and domestic online game products (e.g., Changyou, Tencent Games, NetEase, Perfect World Network). In 2013, Tencent Games launched Korean NCsoft's Blade and Soul game in China. The celebrity spokesperson of this MMOPRG game is Girl's Generation, a popular South Korean singing group consisting of nine teenage-looking girls (Victoria, 2014). The purpose of the ad campaign, according to Tencent Games, is to appeal to young players in China (Alim17, 2013). What makes the campaign controversial is the portrayal of the Girls Generation as sexual objects in the ads. As Burgess et al. (2007) point out, female images take on the function of "eye candy" in games, which means that the major function of female characters is to stimulate players' eyeballs. Female characters are not only an "eye candy" for game products, but also an "eye candy" for game advertising. Kuntjara (2004) found that most women's images in ads are thin and tall with long legs. The same can be found in Chinese online game ads. It is common to see young and pretty girls like Girl's Generation in online game ads, and the tone and style of these ads are usually sexually suggestive. For example, female models usually wear revealing clothing with

clearly exposed cleavage in online game advertising. The problem is more serious in the banner ads of online webpage games (Game163, 2011).

Exposure to sexually suggestive online game advertising could influence the thoughts and behaviors of male as well as female players. Bessenoff (2006), for example, presented evidence that there is a negative correlation between level of self-esteem and body image perception among females who are heavily exposed to the “thin-ideal” female images in the media. The symptoms of low self-esteem can be negative mood, depression, and negative attitude toward their own bodies (Bessenoff, 2006). Advertising reflects cultural values (Pollay, 1983; Tse, Belk, & Zhou, 1989). It seems reasonable to assume that the negative and stereotypical portrayals of women in online game advertising may lead to distorted views of women among Chinese youth (Cheng & Schweitzer, 1996; Ji & McNeal, 2001; Scott, 1994).

It should be noted that, with the growing number of netizens and Internet addiction cases, China is the first country with government-imposed anti-addiction guidelines and restrictions (Tao, 2007). For example, the Advertising Law of the People’s Republic of China banned all online game advertising in youth publications (Zhu, 2015). Despite the loosening of advertising regulations in 2015, online game advertising deemed unfavorable to public morals is still banned by the government (Zhu, 2015).

### **Purpose of the Study**

The purpose of this study is to examine college students’ attitudes toward online games, online game advertising and restrictions on online game advertising. The study further attempts to explain the relationships among these attitudinal responses by drawing on the theoretical

postulates of the first- and third-person effects hypotheses. In the following sections we will review extant literature, present research hypotheses and outline the research methodology.

## **Chapter Two**

### **Literature Review**

In this chapter, we present a review of the literature pertaining to the key theoretical constructs of the study: Attitude toward advertising, attitude toward product, first-person effect and third-person effect.

#### **Attitude Toward Advertising and Attitude Toward Product**

In advertising research, attitude toward the ad (ATTA) has become an important concept in understanding consumer reactions to advertising communication (Brown & Stayman, 1992; Hoyer, MacInnis, & Pieters, 2012). Several studies have shown that attitude toward the ad is a strong indicator of advertising effectiveness (Batra & Ray, 1986; Liu & Stout, 1987; MacKenzie, Lutz, & Belch, 1986; Posavac, Sanbonmatsu, Seo, & Iacobucci, 2014; Mitchell & Olson, 1981). Sometimes consumers may have such strong attitudes toward an advertisement that they transfer these feelings from the ad to their attitude toward the brand (ATTB). In other words, attitude toward the ad may be viewed as a precursor of brand attitude (MacKenzie, Lutz & Belch, 1986; Shimp, 1981).

Research has demonstrated that the emotional responses generated in the viewing of an ad can affect attitude toward the ad, attitude toward the brand, and purchase intention (Batra & Ray, 1986; Holbrook & Batra, 1987). These studies have often shown a strong positive relationship between attitude toward the ad and attitude toward the brand, which in turn is

positively related to purchase intention. For instance, Mitchell and Olsen (1981) tested the role of attitude toward the ad and found that participants' response to the ads determined attitude toward the brand and purchase intentions. Shimp (1981) also presented evidence showing the causal influence of attitude toward the ad on purchase intention.

Two theoretical explanations have often been used to clarify the role of attitude toward the ad in advertising processing: The dual mediation hypothesis and the affect transfer hypothesis. According to the dual mediation hypothesis, consumers can have a positive attitude toward an ad either because they find it believable or because they feel good about it. The enhanced believability or liking induced by ad exposure would then mediate the effect of attitude toward the ad on attitude toward the brand, which in turn may affect intention to purchase the brand. In addition, when brands are new or not well known, consumers' liking of the ad can play a more significant role in their liking of the brand (Hoyer, Macinnis, & Pieters, 2012).

The Affect Transfer Hypothesis (ATH) is also an important account of the mediating role of attitude toward an ad (Mitchell & Olson, 1981; Shimp, 1981). The hypothesis, according to MacKenzie, Lutz, and Belch (1986), posits a direct one-way causal relationship from attitude toward an ad to attitude toward a brand. The reasoning is that consumers learn to like or have positive feelings for objects associated with "good" things, and they acquire adverse feelings toward objects associated with "bad" things. For example, the use of attractive (unattractive) sources could enhance (lessen) the likability of an advertising message. After repeated exposure to an ad, the positive or negative feelings induced by an ad would eventually "transfer" from the ad to the advertised brand.



A well-liked ad creates a well-liked product (Phelps & Hoy, 1996). Petty and Cappicio's (1983) study of advertising effects revealed that attitudes toward an advertised product were influenced more by their attitude toward the ad, or ad likeability, than thoughts about the actual product. Shen (1998) presented evidence that well-liked ads attracted more attention and cognitive elaborations which led to stronger attitudes and greater attitudinal impact on long-term purchasing behavior. Shavitt, Lowrey and Hasefner (1998) presented similar findings that ad likability could enhance attention and exposure to advertisements, especially among the targeted audiences. Follow-up research generally supports the role of attitude toward the ad as a measure of advertising effectiveness (Bergkvist & Rossiter, 2008), a predictor of advertising success (Yelkur, Tomkovick, Hofer, & Dozumalski, 2013), and a correlate to sales performance (Staple, 1994).

Nevertheless, some researchers have argued that the paths of influence between attitude toward the ad and attitude toward the brand may work both ways (i.e., ATTA  $\rightarrow$  ATTB and ATTB  $\rightarrow$  ATTA) or bi-directional (ATTA  $\leftrightarrow$  ATTB). Mitchell and Olson (1981), for example, argued that previous findings in the relationship between ATTA and ATTB were flawed because researchers failed to account for prior brand attitude. In their study, the well-documented ATTA  $\rightarrow$  ATTB relationship disappeared after controlling for brand familiarity. The reversed path was observed most often in studies of controversial products such as alcoholic beverages. Wyllie (1997), for example, found a reverse path of influence between attitude toward the ad and attitude toward alcohol product (ATTP), where attitude toward the product category as a whole predicted subsequent attitude toward the ad, but not the other way around. Researchers found that students who were already frequent drinkers (with established ATTP) rated alcohol advertising as more effective, identified better with their portrayals of alcohol use, and regarded

those portrayals as more desirable compared with students who were less frequent drinkers (Agostinelli & Grube, 2002). A higher drinking frequency also foretold less approval of anti-alcohol abuse public-service announcements (David, Liu, & Myer, 2004).

For both theoretical and practical reasons, this study will examine the relationship between attitude toward online game advertising and attitude toward online games. Similar to alcohol products, the controversial nature of online games in Chinese society warrants the examination of online games as a product category rather than individual brands. Despite the existence of hundreds of online game brands, the advertising strategies and tactics generally adopted by online game marketers justify the treatment of online game advertising as a whole.

### **The First- and Third-Person Effect**

Studies in mass communication and public opinion point to the need to distinguish between the perceived influence of media on oneself (first-person effect) and the perceived influence on others (third-person effect). The same distinction is made in the present study between Chinese college students' perceived influence of online game advertising on themselves and on others.

The third-person effect has received much research attention since Davison put forward the hypothesis in 1983. The hypothesis, in brief, states that individuals tend to overestimate the impact of mass media on other people than on themselves. The corollary of the hypothesis is that individuals are more willing to take actions to protect other people who are vulnerable to media influence (Davison, 1983).

The hypothesis has generated numerous studies in an effort to explain this phenomenon. In their meta-analysis, Paul, Salwen and Dupagne (2000) discussed varying sociological and

psychological theories that had been used to explain the third-person effect and its consequences, including ego involvement, the elaboration likelihood model, the social categorization theory, attribution theory, and biased optimism. Some researchers have argued that the third-person effect, at its heart, reflects a self-serving bias (Gunther & Mundy, 1993; Gunther & Thorson, 1992).

The comparison between self and other constitutes a form of unrealistic and biased optimism that is motivated by the need for ego enhancement (Brown, 1986). The same motivation also may lead people to think that others are more likely to be harmed by the media if, by comparison, it enhances their view of themselves (McLeod, Eveland, & Nathanson, 1997). The more negative a message is perceived, therefore, the wider the gap between its perceived influence on self and others (Eveland & McLeod, 1999).

Perloff (1989, 1996) notes that the third-person effect is more likely to manifest itself when media message advocates behavior that is detrimental to the self, or gives rise to the perception that it is not smart to be influenced by the message. The end result is that people surmise others will fall victim to media's influence while they will not. White (1997) and Merirck (2004) also suggest that people are likely to consider themselves stronger, smarter and more resistant to a message when they feel the topic is one that has little benefit, or even potentially harmful consequences, for its audience. Similarly, Eveland and McLeod (1999) argue that the magnitude of the third-person effect is determined by the social desirability of the message -- the lower the social desirability of the message, the stronger the third-person effect.

Social distance has often been used to differentiate the self and the others (Chen, 2015). That is, individuals will compare the similarity between themselves and others when trying to determine the influence of media. The third-person effect will be more pronounced when

individuals see themselves more socially distant from others (Banning & Sweetster, 2007). There are several ways of defining social distance, including geographical, psychological, social-economic distances and group size (McLeod, Eveland, & Nathanson, 1997; Brosius & Engel, 1996; Tewksbury, 2002).

Many researchers see the behavioral aspect of the third-person effect as the most socially relevant phenomenon. The behavioral aspect suggests that people will favor restricting messages that may negatively affect others. McLeod, Detenber and Eveland (2001) showed that support for censorship stemmed from participants' experiencing third-person perception. Salwen and Dupagne (1999) found that willingness to support censorship was attributable to the perception that others were not wholesome enough to resist immoral influences. In some instances, the support for limiting access to media found its justification from a paternalistic attitude and the need to protect others from harmful media effects (McLeod, Detenber, & Eveland, 2001). The behavior component of the third-person effect has received empirical support in a variety of media contexts, including rap song lyrics (McLeod, Detenber, & Eveland, 2001), Internet pornography messages (Lo & Wei, 2002), television violence (Hoffner et al., 1999), sexual media content (Chia, Lu, & McLeod, 2004), beauty advertisements (Barak-Brandes, 2011), food safety news (Wei, Lo, & Lu, 2010) and alcohol advertising (Begin & Liu, 2006; Lambe & McLeod, 2005).

Researchers pointed out that supporting censorship on undesirable media content is a distinct behavioral consequence of the third-person effect. Normally, censorship is a means that authoritarian governments use to control society, and people who prefer the ideal of democratic society are against governmental censorship. However, people who insist on the democratic ideal also see the need for censorship when they perceive a potential threat from an undesirable

message. Mcleod, Detenber and Eveland (2001) coined the term “paternalistic attitude” to describe this phenomenon, and demonstrated that this attitude is a “benign” behavior that was good for controlling certain negative media information. Salwen and Dupagne (1999) also pointed out that one factor that leads people to support censorship was that they consider others to be susceptible to the immoral information.

In contrast to the third-person effect, the first-person effect has been found to occur when the potential benefit from a message is high (Golan & Day, 2008). That is, when media messages are positive and advocate beneficial outcomes, people tend to consider themselves just as influenced as others; and in some cases, they may anticipate even more effect on themselves. Gunther and Mundy (1993) point out that as interest in the messages increases, so does the perceived influence on ourselves. Eveland and McLeod (1999) argue that ego enhancement is responsible for the observed first-person effect where people view themselves as more persuaded by the desirable media content.

The first person effect was observed most often in studies of political communication and advertising. Cohen and Davis (1991), for instance, noted the existence of “the reversed third person effect” in their study of the influence of negative political advertising. Tiedge, Silverblatt, Havice, and Rosenfeld (1991) examined the moderating roles of age and education in perceived media influence, and first coined the term “first-person effect” in their study. The first-person effect was also observed in Meirck’s (2004, 2005) studies of anti-smoking, seatbelts and drunk driving public service announcements.

Gunther and Thorson (1992) made the distinction between messages that are intended to inform, such as news, and those that are intended to persuade, such as advertising. They argued that people will perceive the two domains of messages accordingly and will show

domain-specific processing patterns. Specifically, exposure to news is both sought-after and socially desirable, while advertising is usually an event to avoid. Being persuaded by advertising is often viewed as detrimental, the general sphere of advertising would thus likely to exhibit the third-person effect.

However, Gunther and Thorson (1992) also noted that some advertising might induce a first-person effect. They examined estimates of influence on self and others in relation to ads that contained an emotional appeal and found that although the self and others were equally affected by the positively-emotional message, participants tended to recognize and admit more of an impact on themselves than others. Given that younger audience often characterizes advertising as fun, youthful, exciting, and thus emotional, one would expect such advertising to induce the first-person effect as well.

It should also be noted that the first- and the third-person effects are often related. Specifically, the perceived influence of advertising on self may constitute the basis for the assessment of the influence on others. The reasoning is consistent with the hypothesis of looking glass perception which finds that individuals project their own thoughts and feelings onto others: “what I think must be what others think” (Fields & Schuman, 1976; Chan & Lee, 2009). The looking glass perception is assumed to operate quite apart from the actual distribution of opinion. Relative to the current study, the hypothesis suggests that if college students experience the first-person effect of online game advertising, they would project the perceived influence onto others in the form of the third-person effect.

## **Chapter Three**

### **Research Hypotheses**

Thus far we have reviewed two separate lines of research, both of which are clearly related to the current study of online games and online game advertising. Attitudes toward the product and advertising, as mentioned earlier, are indispensable concepts in studying advertising effects on buying behavior. The first- and third-person hypotheses provide valuable insights to the underlying mechanisms of the effect processes as well as their behavioral consequences. The general question that emerges from the review is: What are the relationships among attitude toward online game advertising, attitude toward online games, and the perceived influence of online game advertising on self and others?

In a rare attempt to bring these two lines of research together, Begin and Liu (2006) examined attitude toward alcohol advertising, attitude toward alcohol products, first- and third-person effects on college students' attitude toward placing greater restrictions on alcohol advertising. Through a survey among 488 American college students, the study found support for the hypothesized direct effect of advertising and product attitudes on attitude toward restrictions. Also supported was the indirect effect of advertising and product attitudes via such mediators as perceived influence on self (first-person effect) and others (third-person effect).

Begin and Liu's (2006) study thus serves as an excellent model for the present study. Both studies deal with familiar products -- alcohol beverages and online games -- that are known

to be harmful when used irresponsibly and excessively. Both deal with products that are heavily promoted through fun, energetic, and exciting advertising messages, despite their potential contribution to abuse and addiction. The advertising-induced attitudes may thus become the antecedents of first-and third-person effects, the outcome of which may be manifested in attitude toward advertising restrictions or censorship.

The reasoning leads to ten research hypotheses. To facilitate clarity, the following acronyms will be used to represent the variables under study.

“ATTA” refers to the individual’s attitude towards the online game advertising.

“ATTG” refers to the individual’s attitude towards the online games.

“ATTR” will be used to refer to the individual’s attitude towards the government restrictions towards online games and online game advertising.

“SELF” refers to individual’s perception of the impact of online game advertising on himself or herself.

“OTHERS” refers to individual’s perception of the impact of online game advertising on other people.

The first group of hypotheses deal with the relationships among SELF, OTHERS and ATTR.

**H1:** There is a positive relationship between perceived influence of online game advertising on oneself (SELF) and attitude toward government restrictions on online game advertising (ATTR). (SELF → ATTR)



**H2:** There is a positive relationship between perceived influence of online game advertising on others (OTHERS) and attitude towards government restrictions (ATTR).

(OTHERS → ATTR)

The second group of hypotheses relates to the following three variables: ATTA, ATTG and ATTR.

**H3:** There is a negative relationship between attitude toward online game advertising (ATTA) and attitude toward government restrictions on online game advertising (ATTR).

(ATTA → ATTR)

**H4:** There is a negative relationship between attitude toward online games (ATTG) and attitude toward government restrictions on online game advertising (ATTR). (ATTG → ATTR)

The third group of hypotheses relates to the following five variables: ATTA, ATTG, SELF, OTHERS and ATTR.

**H5:** Perceived influence of online game advertising on oneself (SELF) will mediate the relationship between attitude toward online game advertising (ATTA) and attitude toward government restrictions on online game advertising (ATTR). (ATTA → SELF → ATTR)

**H6:** Perceived influence of online game advertising on oneself (SELF) will mediate the relationship between attitude toward online games (ATTG) and attitude toward government restrictions on online game advertising (ATTR). (ATTG → SELF → ATTR)

**H7:** Perceived influence of online game advertising on others (OTHERS) will mediate the relationship between attitude toward online game advertising (ATTA) and attitude toward government restrictions on online game advertising (ATTR). (ATTA → OTHERS → ATTR)

**H8:** Perceived influence of online game advertising on others (OTHERS) will mediate the relationship between attitude toward online games (ATTG) and attitude toward government restrictions on online game advertising (ATTR). (ATTG → OTHERS → ATTR)

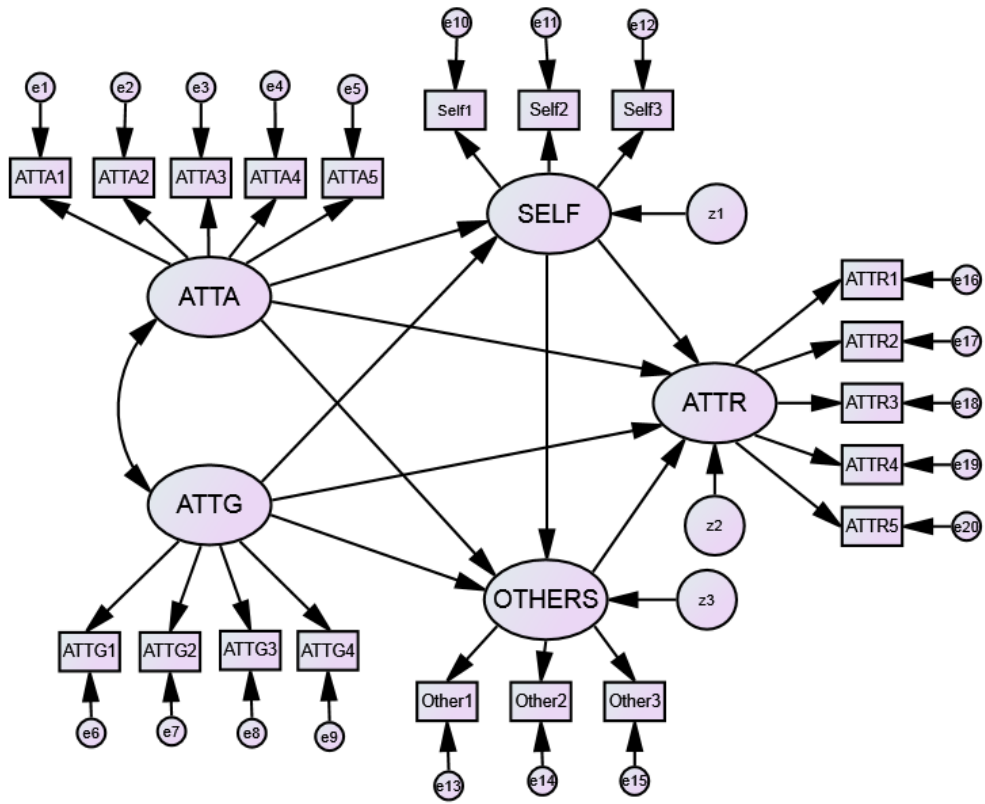
The fourth group of hypothesis relates to two variables: ATTA and ATTG

**H9:** There is a positive relationship between an attitude toward online game advertising (ATTA) and attitude toward online games (ATTG). (ATTA ↔ ATTG)

The final hypothesis relates to these two variables: SELF and OTHERS.

**H10:** There is a positive relationship between the perceived impact of online game advertisings on oneself (SELF) and perceived the impact of online game advertisings on others (OTHERS). (SELF → OTHERS)

All hypotheses stated above are incorporated in the structural equation model (see Figure 1 below). The five variables are treated as latent variables with multiple measured indicators.



ATTA: Attitude toward online game advertising  
 ATTG: Attitude toward online games  
 SELF: Perceived influence on self  
 OTHERS: Perceived influence on others  
 ATTR: Attitude toward restrictions on online game advertising

Figure 1. Structural Equation Model

## **Chapter Four**

### **Methodology**

This chapter explains the research design, sample and instrument employed for data collection.

#### **Design and Sample**

An online survey was conducted among 518 Chinese college students during October 2015. Sojump.com, a leading online survey platform was used for data collection. Sojump.com was established in 2005 and serves clients like WarMart, China Telecom, IBM, Siemens and P&G. Participation in the survey was strictly voluntary and the identities of respondents remained confidential before, during and after data collection.

The sample consisted of both 306 males and 212 females. The vast majority (98.6) of them were younger than 25 and all of them were attending colleges in China during the study. Nearly all (92.3%) respondents said they had experience in playing online games, and many of them (55%) claimed that they played online game often. The distributions of sample's gender, age, and academic status, online game playing and online game playing frequency are shown in Tables 1 through 5, respectively.

Table 1

Sample Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	306	59.1	59.1	59.1
Female	212	40.9	40.9	100.0
Total	518	100.0	100.0	

Table 2

Sample Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18.00	19	3.7	3.7	3.7
19.00	32	6.2	6.2	9.8
20.00	120	23.2	23.2	33.0
21.00	137	26.4	26.4	59.5
22.00	114	22.0	22.0	81.5
23.00	58	11.2	11.2	92.7
24.00	24	4.6	4.6	97.3
25.00	7	1.4	1.4	98.6
26.00	3	.6	.6	99.2
27.00	1	.2	.2	99.4

Table 2 (Continued)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 28.00	1	.2	.2	99.6
34.00	1	.2	.2	99.8
35.00	1	.2	.2	100.00
Total	518	100.0	100.0	

Table 3

Sample Academic Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Freshman	36	6.9	6.9	6.9
Sophomore	191	36.9	36.9	43.8
Junior	180	34.7	34.7	78.6
Senior	111	21.4	21.4	100.0
Total	518	100.0	100.0	

Table 4

Sample Online Game Playing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	478	92.3	92.3	92.3
No	40	7.7	7.7	100.0
Total	518	100.0	100.0	

Table 5

Sample Online Game Playing Frequency

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Never	38	7.3	7.3	7.3
Rarely	22	4.2	4.2	11.6
Sometimes	127	24.5	24.5	36.1
Often	285	55.0	55.0	91.1
Always	46	8.9	8.9	100.0
Total	518	100.0	100.0	

**Survey Instrument**

Measures of the variables in this study were modified from Begin and Liu (2006). The questionnaire had twenty-seven questions, and it took less than 10 minutes to complete. Because

the survey was conducted in China, the survey questionnaire was first designed in English and then translated to Chinese in order to facilitate responding. Instructions were presented before the questions, including a confidentiality statement and informed consent. The Appendix provides the English and Chinese versions of the questionnaire.



## Chapter Five

### Results

Table 6 displays the means and standards deviations of individual items used to measure ATTA, ATTG, SELF, OTHERS and ATTR. Also presented are the means, standard deviations of the averaged composite measures of these constructs. All Cronbach's alphas were greater than .70, indicating the measures achieved acceptable levels of internal consistency.

Table 6

Descriptive and Reliability Statistics

	N	Mean	Std. Deviation	Cronbach's $\alpha$
<b>ATTA</b>	<b>518</b>	<b>3.5737</b>	<b>.91246</b>	<b>.912</b>
ATTA1	518	3.4093	1.08376	
ATTA2	518	3.5502	1.16874	
ATTA3	518	3.5270	.98452	
ATTA4	518	3.6911	1.03384	
ATTA5	518	3.6911	1.02066	
<b>ATTG</b>	<b>517</b>	<b>.000</b>	<b>.98118</b>	<b>.732*</b>
ATTG1	518	3.9305	.81273	

Table 6 (Continued)

	N	Mean	Std. Deviation	Cronbach's $\alpha$	
ATTG2	518	3.9208	.89026		
ATTG3	518	4.0656	.75123		
ATTG4	518	4.0077	.73851		
ATTG5	518	3.4556	.97600		
<b>SELF</b>	<b>518</b>	<b>2.7806</b>	<b>.70254</b>		<b>.774</b>
SELF1	518	2.7896	.80624		
SELF2	518	2.8378	.88658		
SELF3	518	2.7143	.84564		
<b>OTHERS</b>	<b>518</b>	<b>2.9414</b>	<b>.57810</b>		<b>.707</b>
OTHER1	518	2.9498	.72626		
OTHER2	518	2.9749	.69354		
OTHER3	518	2.8996	.76274		
<b>ATTR</b>	<b>517</b>	<b>.000</b>	<b>.43977</b>		<b>.807</b>
ATTR1	518	3.1429	1.04208		
ATTR2	518	3.4614	1.09397		
ATTR3	518	3.7452	.95989		
ATTR4	518	3.7124	.93310		
ATTR5	518	3.1371	1.18114		

\*Cronbach's  $\alpha$  after removing ATTG5

Table 7

ATTA, ATTG, ATTR: Means and Standard Deviations

	N	Mean	Std. Deviation	Std. Error Mean
ATTA	518	3.5737	.91246	.04009
ATTG	518	3.9812	.59597	.02619
ATTR	518	3.4398	.78607	.03454

Table 7 shows that respondents in the present study exhibited, on the average, a favorable attitude toward online games (mean ATTG = 3.98, SD = .59), a favorable attitude toward online game advertising (mean ATTA = 3.57, SD = .91) as well as a favorable attitude toward more restrictions on such advertising (mean ATTR = 3.44, SD = .79). One-sample t-test results (Table 8) showed that all three attitude means were significantly different the neutral point of 3 on the scale ( $t_{ATTA} = 14.31$ ,  $df = 517$ ,  $p < 0.001$ ;  $t_{ATTG} = 37.47$ ,  $df = 517$ ,  $p < 0.001$ ,  $t_{ATTR} = 12.73$ ,  $df = 517$ ,  $p < 0.001$ ).

Table 8

One-Sample t-tests: ATTA, ATTP, ATTR

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
ATTA	14.311	517	.000	.57375	.4950	.6525
ATTG	37.470	517	.000	.98118	.9297	1.0326

Table 8 (Continued)

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
ATTR	12.733	517	.000	.43977	.3719	.5076

Table 9 shows a paired samples t-test that compared respondents' perceived influence of online game advertising on themselves and on other college students. Test results indicated respondents tended to perceive greater influence of online game advertising on other college students (Mean OTHERS = 2.94, SD =.57) than on themselves (Mean SELF = 2.78, SD =.70) ( $t = -5.924$ ,  $df = 517$ ,  $p < 0.001$ ).

Table 9

Paired Samples t-test: Self vs. Others

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
SELF vs. OTHERS	-.16088	.61804	.02716	-.21422	-.10753	-5.924	517	.000

## Measurement Model Results

Table 10 shows the standardized regression weight estimates and their standard errors for construct indicators. The regression weights for all the indicators are statistically significant ( $P < .001$ ). Additionally, the standard errors are small, which indicates acceptable validity of the measurement model.

Table 10

Measurement Model Results

	Standardized Regression Weight Estimate	S.E.	C.R.	P
ATTA → ATTA1	.828			
ATTA → ATTA2	.857	.050	22.189	***
ATTA → ATTA3	.738	.045	18.000	***
ATTA → ATTA4	.769	.045	19.019	***
ATTA → ATTA5	.816	.044	20.671	***
ATTG → ATTG1	.575			
ATTG → ATTG2	.625	.114	9.142	***
ATTG → ATTG3	.553	.105	8.515	***
ATTG → ATTG4	.621	.108	9.113	***
ATTR → ATTR1	.689			

Table 10 (Continued)

		Standardized Regression	S.E.	C.R.	P
		Weight Estimate			
ATTR	→ ATTR2	.683	.083	12.477	***
ATTR	→ ATTR3	.686	.073	12.519	***
ATTR	→ ATTR4	.715	.071	12.919	***
ATTR	→ ATTR5	.654	.089	12.033	***
SELF	→ Self1	.650			
SELF	→ Self2	.716	.098	12.346	***
SELF	→ Self3	.710	.095	12.279	***
OTHERS	→ Other1	.665			
OTHERS	→ Other2	.617	.084	10.545	***
OTHERS	→ Other3	.675	.097	11.202	***

### Structure Model Results

Table 11 shows the results of the structural model obtained through SPSS AMOS. An initial question is whether the structural equation analysis estimates for the model provide adequate fit to the data. Although the Chi-square test indicates lack of model fit ( $X^2 = 386.748$ ,  $df = 160$ ,  $p = .000$ ), it should be noted that the Chi-square test is sensitive to large sample sizes, like the one employed in the present study. Assessment of the model's fit thus relied on other

goodness-of-fit indices. Bryne (2001) suggests that models with GFI, AGFI, and CFI values greater than .90, and a RMSEA less than or equal to .10 be judged as providing a reasonable fit to the data. Similarly, Hu and Bentler (1999) recommend RMSEA values below .06 and TLI value of .95 or higher. In this study, all these goodness-of-fit measures (GFI = .94; AGFI = .91; CFI = .96, TLI = .95, RMSEA =.05) indicate that the model provides acceptable fit to the data. Figure 2 is a pictorial display of the structural model results.

Table 11  
Estimates of Standardized Regression Weights

	Standardized Regression Weight ( $\beta$ ) Estimate	S.E.	C.R.	P
ATTA → SELF	.674	.047	8.275	***
ATTG → SELF	.019	.086	.243	.808
ATTA → OTHERS	-.207	.058	-2.022	.043
ATTG → OTHERS	.182	.090	2.166	.030
SELF → OTHERS	.890	.110	7.807	***
ATTA → ATTR	-.024	.100	-.208	.835
ATTG → ATTR	-.062	.155	-.650	.516
SELF → ATTR	.096	.303	.468	.640
OTHERS → ATTR	.255	.088	2.898	.028

Table 11 (Continued)

	Standardized Regression			
	Weight ( $\beta$ )	S.E.	C.R.	P
ATTG $\leftrightarrow$ ATTA	.638	.032	7.805	***

$X^2 = 386.748$ ,  $df = 160$ ,  $p = .000$ ;  $GFI = .937$ ;  $AGFI = .913$ ;  
 $NFI = .920$ ;  $CFI = .957$ ;  $TLI = .945$ ,  $RMSEA = .047$ , \*\*\*  $p < .001$

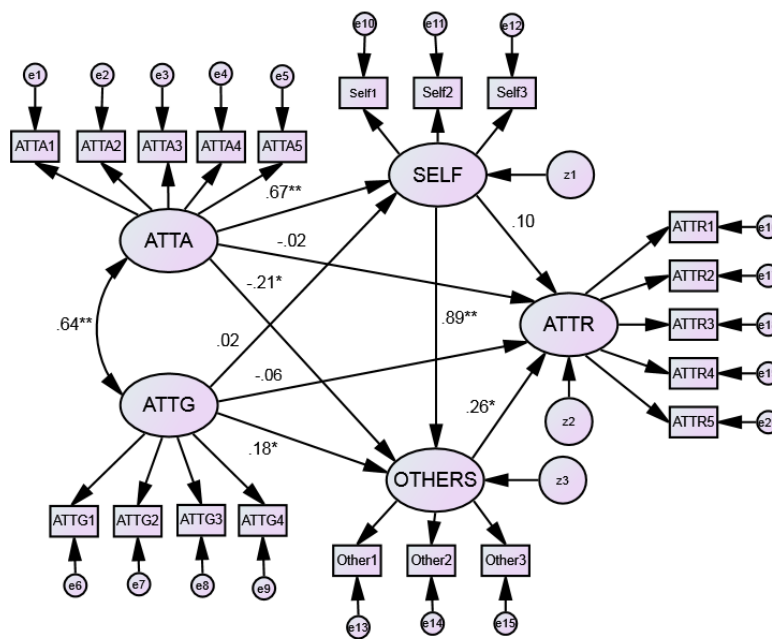


Figure 2. Structural Model Results

\*\*  $p < .001$ , \*  $p < .05$



## Hypotheses Testing

The first group of hypotheses deal with the relationships among SELF, OTHERS, and ATTR. H1 states that there is a positive relationship between perceived influence of online game advertising on oneself (SELF) and attitude toward government restrictions on online game advertising (ATTR). The hypothesis was not supported ( $\beta_{\text{SELF} \rightarrow \text{ATTR}} = .096, p = .640$ ). On the other hand, H2, which states that there is a positive relationship between perceived influence of online game advertising on others (OTHERS) and attitude towards government restrictions, was supported ( $\beta_{\text{OTHERS} \rightarrow \text{ATTR}} = .255, p < .05$ ).

The second group of hypotheses is related to the following three variables: ATTA, ATTG, and ATTR. Results failed to support H3 which states that there is a negative relationship between attitude toward online game advertising (ATTA) and attitude toward restrictions on online game advertising (ATTR) ( $\beta_{\text{ATTA} \rightarrow \text{ATTR}} = -.024, p = .835$ ). Similarly, results failed to support H4 which states that there is a negative relationship between attitude toward online games (ATTG) and attitude toward government restrictions on online game advertising (ATTR) ( $\beta_{\text{ATTG} \rightarrow \text{ATTR}} = -.062, p = .516$ ).

The third group of hypotheses deals with the mediating roles of SELF and OTHERS. H5, which posits that perceived influence of online game advertising on SELF will mediate the relationship between attitude toward online advertising (ATTA) and attitude toward restrictions (ATTR), was not supported ( $\beta_{\text{ATTA} \rightarrow \text{SELF}} = .674, p < 0.01, \beta_{\text{SELF} \rightarrow \text{ATTR}} = .096, p = .640$ ). Likewise, the hypothesized mediating role of SELF between ATTG and ATTR (H6) was not supported ( $\beta_{\text{ATTG} \rightarrow \text{SELF}} = .019, p = .808, \beta_{\text{SELF} \rightarrow \text{ATTR}} = .096, p = .640$ ).

Results did support the mediating role of perceived influence of online game advertising on other college students, however. Together, the significant ATTA→OTHERS path ( $\beta = -.207$ ,

$p = .043$ ) and  $\text{OTHERS} \rightarrow \text{ATTR}$  ( $\beta = .255, p = .028$ ) provided support for H7, which states that the perceived influence on others (OTHERS) would mediate the relationship between attitude toward online game advertising (ATTA) and attitudes toward restrictions on online game advertising (ATTG). The negative  $\text{ATTA} \rightarrow \text{OTHERS}$  path indicates that the more favorable the respondents' attitude toward online game advertising was, the lower their perceived influence of such advertising on other college students. The positive  $\text{OTHERS} \rightarrow \text{ATTR}$  path suggests that the greater the respondents' perceived influence of online game advertising on other college students, the more favorable their attitude toward advertising restrictions would be.

The mediating role of perceived influence of online game advertising on others, as H8 prescribes, was also supported by the significant paths leading from ATTG to OTHERS ( $\beta_{\text{ATTG} \rightarrow \text{OTHERS}} = .182, p = .030$ ) and from OTHERS to ATTR ( $\beta_{\text{OTHERS} \rightarrow \text{ATTR}} = .255, p = .028$ ). The positive paths indicate that favorable attitude toward online games would lead to greater perceived influence of online game advertising on others, which in turn would lead to a more favorable attitude toward restrictions on online game advertising.

H9 predicts that there is a positive relationship between attitude toward online games (ATTG) and attitude toward online game advertising (ATTA). The hypothesis was supported ( $r = .638, p < .001$ ). In other words, the more favorable the respondents' attitude toward online game was, the more favorable their attitude toward online game advertising would be, and vice versa.

H10, or the looking glass perception hypothesis, predicts that respondents would project their perceived influence of online game advertising on themselves (SELF) onto the perceived influence on other college students (OTHERS). That is, perceived first-person effect of online game advertising would be transferred to perceived third-person effect. The hypothesis was

clearly supported by the significant and positive path coefficient ( $\beta_{\text{SELF} \rightarrow \text{OTHERS}} = .890, p < .001$ ).

Figure 3 presents all statistically significant paths in the structural model.

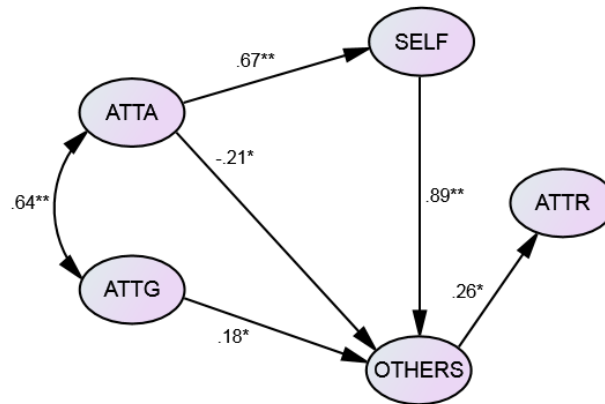


Figure 3. Significant Paths

\*\*  $p < .001$ , \*  $p < .05$

## Chapter Six

### Discussion

The purpose of this study was to explore the relationships among Chinese college students' attitudes toward online games and online game advertising, their perceived influence of online game advertising on themselves and others, and their attitude toward restrictions on online game advertising. A series of hypotheses were proposed and tested, and the results are summarized in Table 12.

Table 12

Summary of Hypotheses Testing

Hypothesis	Relationship	Rationale	Result
H1	SELF → ATTR	First-person effect	Not supported
H2	OTHERS → ATTR	Third-person effect	Supported
H3	ATTA → ATTR	Direct effect	Not supported
H4	ATTG → ATTR	Direct effect	Not supported
H5	ATTA → SELF → ATTR	Indirect (mediated) effect	Not supported
H6	ATTG → SELF → ATTR	Indirect (mediated) effect	Not supported
H7	ATTA → OTHERS → ATTR	Indirect (mediated) effect	Supported
H8	ATTG → OTHERS → ATTR	Indirect (mediated) effect	Supported
H9	ATTA ↔ ATTG	Correlation	Supported
H10	SELF → OTHERS	Looking glass perception	Supported

The pervasiveness of online games in China is clearly reflected in the present study in that the majority (92.3%) of respondents played online games and most of them (63.9%) played online games frequently. The popularity of online games in China was further demonstrated in the respondents' generally favorable attitudes toward both online games and their advertising messages. These favorable attitudes, however, had no direct relationship with respondents' attitude toward imposing greater restrictions on online game advertising, as shown below in Figure 4.

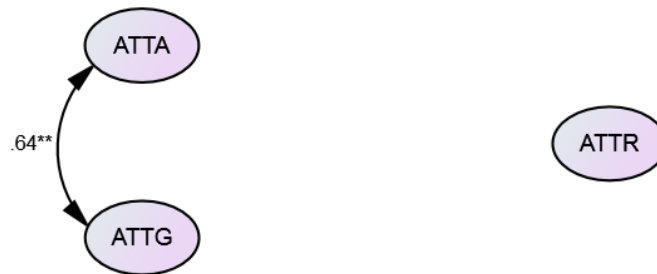


Figure 4. Relationships among Attitudes

\*\* p<.001, \* p<.05

The absence of direct relationships (ATTA→ATTR and ATTG→ATTR) did not preclude the presence of indirect relationships among the attitude variables. As Figure 5 shows, the influences of ATTG and ATTA on ATTR were mediated by OTHERS, the perceived influence of online game advertising on other college students. Furthermore, ATTG and ATTA had opposing effects on OTHERS. That is, while favorable ATTG increased the perceived influence on other college students, favorable ATTA actually attenuated such perceived

influence. It should also be noted that the  $ATTG \rightarrow OTHERS \rightarrow ATTR$  mediation process is consistent with the third-person effect hypothesis. When applied to the present study, the hypothesis suggests that respondents' favorable attitude toward online games resulted in greater perceived influence on other college students, which in turn led to more favorable attitude toward restrictions on such advertising. On the other hand, the  $ATTA \rightarrow OTHERS \rightarrow ATTR$  mediation process is not fully compatible with the third-person effect hypothesis. The negative  $ATTA \rightarrow OTHERS$  path suggests that favorable ATTA actually reduced the perceived influence of online game advertising on others, despite that the perceived influence on others led to greater support for advertising restrictions. One possible explanation of the opposing effects is that ATTG and ATTA represent the outcomes of two psychologically distinct types of product experiences. Playing online games is a direct experience of "the sensation of interaction with a product, service, or event, through all of our senses, over time, and on both physical and cognitive levels" (Li, Daugherty, & Biocca, 2001, p. 1). Favorable ATTG resulting from such product usage experience would thus produce greater perceived influence on other college students, especially those who share the same direct gaming experience. Favorable ATTA, on the other hand, is the result of exposure to online game advertising, thus an indirect product usage experience. Attitudes formed on the basis of such indirect experience may not be taken as facts but as hypotheses to be tested (Hoch & Deighton, 1989); they are more subject to change and may differ systematically from attitudes formed on the basis of direct product experience (Thompson, Hamilton, & Rust, 2005). Consequently, ATTG and ATTA, though positively related, produced opposing effects on OTHERS in the present study. Together, the results supported and extended the third-person effect hypothesis by showing the attitudinal antecedents

of perceived influence of online game advertising on others as well as its subsequent influence on attitude toward restrictions of such advertising.

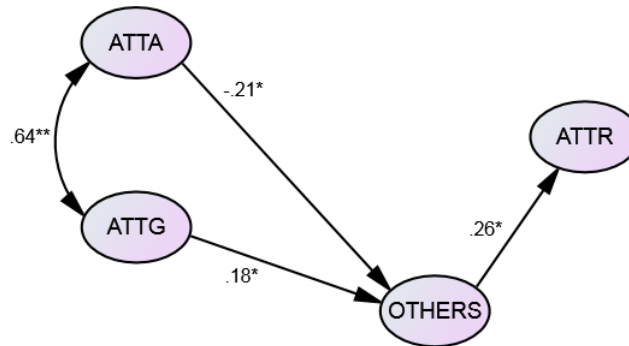


Figure 5. Relationships among Attitudes and Others

\*\* p<.001, \* p<.05

Perhaps the most intriguing finding of the present study is the presence of the ATTA→SELF→OTHERS→ATTR mediating process shown in Figure 6. The positive influence of ATTA on SELF revealed respondents’ admission of the persuasive power of online game advertising -- I like online game ads, and I feel the ads have an impact on me. The significant ATTA→SELF path thus lends support to the first-person hypothesis which predicts that when media messages are positive and advocate beneficial outcomes, people tend to consider themselves just as influenced as others; and in some cases, they may anticipate even more effect on themselves (Eveland & McLeod ,1999; Gunther & Mundy, 1993). At variance with the first-person effect hypothesis, however, is the nonsignificant SELF→ATTR path. That is, the perceived influence of online game advertising on oneself had no direct influence on respondents’

attitude toward advertising restrictions. Perhaps more interestingly, the significant SELF→OTHERS path revealed the clear presence of the looking glass perception through which respondents projected the perceived influence on themselves to other college students -- if online game advertising has an impact on me, it must have an impact on others (Fields & Schuman, 1976; Chan & Lee, 2009). In other words, the first-person effect observed in the ATTA→SELF path was projected onto others in the form of the third-person effect through the SELF→OTHERS link.

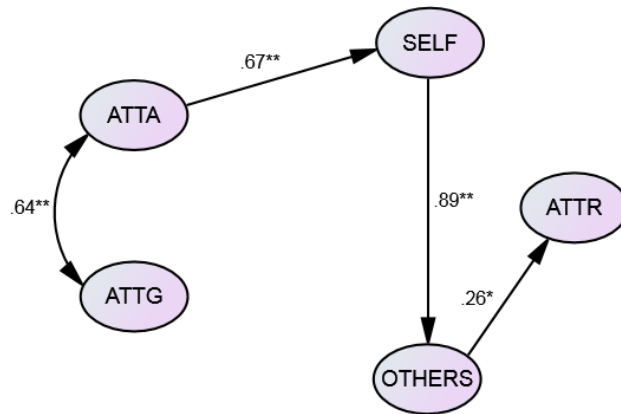


Figure 6. Relationships among Attitudes, Others and Self

\*\* p<.001, \* p<.05

The pronounced looking glass perception (if online game advertising has an impact on me, then it must have an impact on others) and ensuing third-person effect (if online game advertising has an impact on others, then there should be more restrictions on such advertising) point to a complex and to a certain degree conflicting views of online game advertising. On one hand, the tendency for Chinese college students to project their own views onto others is



consistent with the transition of values observed in several studies of the Chinese society. Zhang (2012), for instance, has noted that the generation that grew up in the 1990s might best be characterized as lacking life values: “In many aspects of life, this generation does not have clear values. They believe that their personal accomplishments in life should come first, which is contradictory to traditional collectivist values which emphasize others more than self.” Feng (2014) attributes the rise of egocentrism among Chinese college students to the nation’s rapidly growing economic prosperity, and Cao (2009) asserts that economic prosperity has made the Chinese society more individualistic. According to Liao (2012), the one-child policy in China further contributes to the increasingly noticeable self-centered thoughts and behaviors among Chinese youth.

If the looking glass perception observed in this study points to the self-centered tendency among Chinese college students, then the presence of third-person effect suggests that the traditional Chinese values remain very much alive in their minds. Rooted in Confucianism, the collectivistic culture in China values others more than self. An individual’s role is to contribute to the great good of the society, even at the expense of one’s own interests (Kolstad & Gjesvik, 2014; Armstrong & Swartzman, 2001). Moral codes such as “For one would do for others as one would do for oneself (Johnston, 2010)” appeared to be powerful source of influence in this study. After all, it is the perceived influence of online games on others rather than themselves that prompted respondents to express their support for restrictions on online game advertising.

## **Chapter Seven**

### **Conclusions**

This thesis represents perhaps the first empirical study of the first-person and third-person effects of online game advertising in China. The general results showed that the perceived influence of online game advertising on other students mediated the effects of attitudes toward gaming products and their advertising messages on college students' attitude toward restrictions of online game advertising. Unlike previous studies that often investigated the effects of advertising in a social vacuum, this study provides some initial evidence that advertising works, to a significant extent, by affecting how consumers think about others. Indeed, a more complex picture emerges when other people are involved. In contrast to prior studies that assumed direct influence of advertising on the individual, this study took into account the social context and find advertising to have indirect third-person effects on the individual as well.

Findings of the present study also provided the theoretical foundation for studying attitudinal antecedents to the first- and third-person effect in advertising. They suggest that the effect that advertising achieves is not only due to any direct persuasive influence of the message itself, but also to the behavior of those persons who anticipate, or think they perceive, some reaction on the part of others, and behave differently as a result. People react to advertising depending on how they think other people understand the communication. In other words, peer

and reference group pressure can be a powerful determinant in whether a person is likely to deny that a communication has had a persuasive impact on them.

This study also extended previous studies by showing the intricate relationship between the first- and the third-person effect. By projecting one's own views to others through looking glass perception, the first-person effect may actually give more impetus to the third-person effect in evaluating advertising effects. The extent to which looking glass perception serves as a theoretically valid interpretation of the relationship is largely determined by the cultural and economic environment. Results of the present study suggests that the coexistence of self- and other-centered values in modern China facilitated looking glass perception as a psychological conduit between first- and third-person effects.

The present study also suggests that effective interventions to mitigate online game addiction may require simultaneously addressing the two faces of online game advertising effects: Decrease the perceived positive, first-person effect of online game advertising, and increase its perceived negative, third-person effect. Communication designed to counter online game advertising should (1) strengthen and channel the negative consequences of gaming activities on significant others, while at the same time (2) reduce the positive feelings and emotions induced by online game advertising. In agreement with the emphasis on the third person, the general communication strategy is to strengthen social norms against excessive gaming activities.

The message to online game marketers and advertisers in China is that consumers are willing to accept more restrictions on online game advertising because they are concerned about its potentially harmful effects on others. The attitude in favor of restrictions is likely to become stronger as online gaming and gaming advertising become more pervasive and popular. To

Chinese government agencies or legislative bodies, this study sends a clear signal that more stringent regulations on online game advertising are needed to strengthen the existing law which merely states that “the dissemination of online game advertisements on mass media is not conducive to the physical and mental health of minors”<sup>1</sup>.

Like all empirical research, the present study has its limitations. First, the study was based on a survey among Chinese college students, and consequently its results have limited generalizability. More research based on different populations is therefore needed. Second, the survey data and structural equation modeling (SEM) analysis used in this study dealt with correlation, not causation (Everitt & Dunn, 1991). It is also likely that this study merely illuminated one of several theoretically viable models of the relationships among the variables. Future research should thus attempt to test alternative models to better determine the validity of different theoretical explanations and predictions.

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<sup>1</sup> The Advertising Law of the People’s Republic of China, ART.40(Presidential Order No. 22 of 2015).

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## Appendices

### Appendix A: Survey Questionnaire (English)

Thank you for your participation in this survey. The purpose of the survey is to better understand consumer thoughts and actions about online games. You are being invited to participate in this study because you are at least 18 years and attending a college in China. There are no risks associated with participation in the survey. Your participation is completely voluntary. You have the right to refuse to answer any question(s) for any reason, without penalty. Your individual identity will remain strictly confidential throughout this study.

The survey will begin only after you click on the "Yes, I've read the Informed Consent and I agree to participate in the survey."

1. Gender of the respondent

1. Male 2. Female

2. What is your current status?

1. Not a college student 2. A college student 3. A college graduate

3. What's your student status?

1. Freshman 2. Sophomore 3. Junior 4. Senior 5. Graduate

4. What is your age?

5. Do you play online games daily?

1. Yes 2. No

6. How often do you play online games?

1. Never 2. Rarely 3. Sometimes 4. Often 5. Always

Attitude Toward Online Game Advertising

7. I enjoy watching online game advertising.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

8. I like online game advertising that appear on my computer, tablet or smartphone.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

9. I consider the content of the online game advertising, such as celebrity endorsements, images and slogans, to be appropriate.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

10. Online game advertising stimulates my interest in playing a game.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

11. Online game advertising increases my feeling of fun when I play an online game.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

12. I personally believe that most online games are good entertainment.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

#### Attitudes Toward Online Games

13. I enjoy playing online games.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

14. I have positive feelings about online games.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

15. I think playing online games is appropriate for college students.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

16. Playing online games could lead to academic problems at school.

1.Strongly Disagree 2.Disagree 3.Neutral 4.Agree 5.Strongly Agree

#### Perception of the Impact of Online Game Advertising on SELF

17. How much influence do you think online game advertising has on your attitude toward online games?

1.No influence at all 2.Very little influence 3.Some influence 4.A great deal of influence

18. How much influence do you think online game advertising has on your purchase of online game products?

1.No influence at all 2.Very little influence 3.Some influence 4.A great deal of influence

19. How much influence do you think online game advertising has on how often your play online games?

1. No influence at all 2. Very little influence 3. Some influence 4. A great deal of influence

Perception of the Impact of Online Game Advertising on OTHERS

20. How much influence do you think online game advertising has on other students' attitude toward online games?

1. No influence at all 2. Very little influence 3. Some influence 4. A great deal of influence

21. How much influence do you think online game advertising has on other students' purchase of online game products?

1. No influence at all 2. Very little influence 3. Some influence 4. A great deal of influence

22. How much influence do you think online game advertising has on how often your play online games?

1. No influence at all 2. Very little influence 3. Some influence 4. A great deal of influence

Attitude toward Online Game Advertising Restrictions

23. Online game companies should not advertise to college students.

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

24. Online game advertising should be restricted to adults only.

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

25. The government should be stricter in setting restrictions on online game advertising.

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

26. The government should ban online game advertising from some media platforms.

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

27. I support banning online game advertising from all media platform.

1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

## Survey Questionnaire (Chinese)

### 大学生消费者对网络游戏广告的态度调查

亲爱的受访者您好！感谢您参与此次问卷调查。这份问卷调查是我硕士毕业论文的一个重要组成部分，主要目的在于探讨消费者对于网络游戏广告的态度。您的参与完全匿名且不涉及个人隐私，您可以拒绝回答任何您觉得不便回答的问题。此外，所有搜集的数据仅用于学术研究目的，您贡献的信息完全保密，仅本研究人员可以获取。本研究非测验，没有对错之分，也没有任何相关风险。调查会在您同意此说明后开始。

如果您有任何疑问，请联系本文研究员，再次感谢您的参与和支持。

**1. 您的性别是 [单选题] [必答题]**

- 1.男
- 2.女

**2. 您的年龄是 [填空题]**

---

**3. 您目前是：**

1. 尚未进入大学
2. 在校大学生
3. 已经大学毕业

**4. 您目前所在的年级是： [单选题] [必答题]**

- 1.大一
- 2.大二
- 3.大三
- 4.大四

5.研究生

5. 您是否玩网游游戏？ [单选题] [必答题]

1. 是
2. 否

6. 如果您有玩网络游戏，您平均多久玩一次网络游戏？ [单选题] [必答题]

1. 从来不玩
2. 很少玩
3. 偶尔玩
4. 经常玩
5. 不停地玩

7. 我喜欢观看网络游戏广告。 [单选题] [必答题]

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

8. 在媒体上观看网络游戏广告可以给我带来乐趣。 [单选题] [必答题]

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

9. 我可以认同网络游戏广告的内容。 [单选题] [必答题]

1. 非常不同意

2. 不同意
3. 中立
4. 同意
5. 非常同意

**10. 网络游戏广告可以激发我玩游戏的热情。[单选题][必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**11. 网络游戏广告可以增加我玩游戏的乐趣。[单选题][必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**12. 我个人认为大多数的网络游戏很有娱乐性。 [单选题][必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**13. 我喜欢玩网络游戏。 [单选题][必答题]**

1. 非常不同意
2. 不同意

3. 中立
4. 同意
5. 非常同意

14. 我不反对玩网络游戏。 [单选题] [必答题]

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

15. 我不反对大学生玩网络游戏。 [单选题] [必答题]

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

16. 玩网络游戏可能会对大学生造成学业上的不良影响。 [单选题] [必答题]

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

17. 网络游戏广告对您自己玩游戏有影响吗? [单选题] [必答题]

1. 完全没影响
2. 很小的影响
3. 有一些影响



4. 有很大影响

18. 您认为网络游戏广告对您自己购买网络游戏有多大的影响？ [单选题] [必答题]

1. 完全没影响

2. 很小的影响

3. 有一些影响

4. 有很大影响

19. 您认为网络游戏广告会影响您自己玩网络游戏的频率吗？ [单选题] [必答题]

1. 完全没影响

2. 很小的影响

3. 有一些影响

4. 有很大影响

20. 网络游戏广告对其他大学生玩游戏有影响吗？ [单选题] [必答题]

1. 完全没影响

2. 很小的影响

3. 有一些影响

4. 有很大影响

21. 您认为网络游戏广告对其他大学生购买网络游戏有多大的影响？ [单选题] [必答题]

1. 完全没影响

2. 很小的影响

3. 有一些影响

4. 有很大影响

22. 您认为网络游戏广告会影响其他大学生玩网络游戏的频率吗？ [单选题] [必答题]

1. 完全没影响

2. 很小的影响

3. 有一些影响

4. 有很大影响

**23. 网络游戏公司不应该针对大学生做游戏广告。 [单选题] [必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**24. 网络游戏广告的对象应限制于成年人。 [单选题] [必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**25. 政府或相关部门应当更加严格的管理网络游戏广告。 [单选题] [必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**26. 我支持政府或相关部门应当限制在某些媒体上出现的网络游戏广告。 [单选题] [必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

**27. 我支持政府或相关部门应当禁止所有媒体上出现的网络游戏广告。 [单选题] [必答题]**

1. 非常不同意
2. 不同意
3. 中立
4. 同意
5. 非常同意

## Appendix B: Letter of IRB Approval



RESEARCH INTEGRITY AND COMPLIANCE  
Institutional Review Boards, FWA No. 00001669  
12901 Bruce B. Downs Blvd., MDC035 • Tampa, FL 33612-4799  
(813) 974-5638 • FAX(813)974-7091

10/8/2015

Yan Tang  
USF School of Advertising and Mass Communications  
4202 East Fowler Ave, CIS1040  
Tampa, FL 33620

RE: **Exempt Certification**

IRB#: Pro00023760

Title: Online Game Advertising and Chinese College: Attitudes, First and Third-Person Effects

Dear Ms. Tang:

On 10/8/2015, the Institutional Review Board (IRB) determined that your research meets criteria for exemption from the federal regulations as outlined by 45CFR46.101(b):

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:  
(i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

**Approved Item(s):**  
**Protocol Document(s):**

[Guidelines 1003](#)

**Consent/Assent Document(s):**

[Informed Consent to Participate in Research](#)  
[Informed Consent to Participate in Research \(Chinese edition\)](#)

As the principal investigator for this study, it is your responsibility to ensure that this research is conducted as outlined in your application and consistent with the ethical principles outlined in the Belmont Report and with USF HRPP policies and procedures.

Please note, as per USF HRPP Policy, once the Exempt determination is made, the application is closed in ARC. Any proposed or anticipated changes to the study design that was previously declared exempt from IRB review must be submitted to the IRB as a new study prior to initiation of the change. However, administrative changes, including changes in research personnel, do not warrant an amendment or new application.

Given the determination of exemption, this application is being closed in ARC. This does not limit your ability to conduct your research project.

We appreciate your dedication to the ethical conduct of human subject research at the University of South Florida and your continued commitment to human research protections. If you have any questions regarding this matter, please call 813-974-5638.

Sincerely,

A handwritten signature in cursive script that reads "John A. Schinka, Ph.D.".

John Schinka, Ph.D., Chairperson  
USF Institutional Review Board