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First- and Third-Person Effects of Alcohol Advertising on Chinese College Students

Dong Xue

University of South Florida, dong1@mail.usf.edu

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First- and Third-Person Effects of Alcohol Advertising on Chinese College Students

by

Dong Xue

A thesis submitted in partial fulfillment
of the requirements for the degree of
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Major Professor: Scott Liu, Ph.D.
Justin Brown, Ph.D.
Yan Shan, Ph.D.

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Dedication

To my parents

Acknowledgements

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Abstract

Alcohol consumption among Chinese college students has become a serious problem. The present research examines the relationships among attitudes towards alcohol advertising, attitudes towards alcohol products, the perceived influences of alcohol advertising on the self, the perceived influences of alcohol advertising on others, and attitudes toward government restrictions on alcohol advertising. Data were collected from 578 Chinese college students via an online survey. The results supported the hypothesized relationships between attitude toward alcohol products and alcohol advertising, as well as the relationship between attitude toward alcohol advertising and perceived influence of alcohol advertising on oneself. Results also supported the looking glass perception hypothesis whereby the perceived influence of alcohol advertising on oneself (first-person effect) had strong influence on the perceived influence on others (third-person effect) which in turn led to greater support for restrictions on alcohol advertising.

Chapter One

Introduction

Alcohol use has become a widespread problem among Chinese adolescents and youth. Research shows that over 50% of Chinese teenagers have experimented with drinking (Tang, Du, & Ma, 2014) and over 29.7% of students had their first drink before they reached the age of 13 (Huang & Tao, 2012). Survey studies showed that over 80% of college students had experienced drinking, and over 37% of male college students had participated in excessive drinking (Chen, Guo, Liu, Miao, Miao, & Zhang, 2013). Furthermore, regardless of whether they are students or not, nearly 30% of all college-age individuals in China excessively consume alcohol on a regular basis (Ji, 2010). Industry data reveal that the Chinese alcohol industry produced about 48 million tons of beer and 12 million tons of spirits in 2013. Compared to 1980 production levels, the average annual output of alcoholic beverages in China has increased by 62 million tons (Guo & Huang, 2015). These alarming statistics raise some serious concerns about many alcohol-related problems, including drunk driving and a variety of health issues (Liu, Wei, Huang, & Li, 2013). According to a recent study, over 25% of yearly traffic deaths in China are the result of drunk driving (Wang, 2014).

It is generally known that alcohol use has many negative psychological and physiological effects on students (Liu et al., 2013). First, drinking alcohol leads to poor academic performance. According to one study, people who ingest excess alcohol experience distraction, poor judgment, and memory deterioration (Tang, Du, & Ma, 2014). Second, students who drink alcohol to excess are more often involved in interpersonal conflicts (Huang & Tao, 2012). A casual search

for “provoked fighting incident after getting drunk” on Baidu (a Chinese online search engine) produces more than four million results and 18,000 plus news articles. There was even a news report about a college student who drank two bottles of liquor, got in a fight with his friends, killing one of them and seriously injuring two others (Wang, 2012). Third, drinking is harmful to people’s health, especially for women (Huang & Tao, 2012). Although women can drink the same amount of alcohol as men, higher concentrations of alcohol stay in their bodies longer (Chen et al., 2013). A recent study shows that the influence of one bottle of wine for women is the same as two bottles of wine for men, so women are likely to face even worse consequences of drinking than men (Chen, 2015). Despite such knowledge, most Chinese people hold mixed feelings about the good and evil of alcohol consumption (Zhang, 2011).

The mixed feelings for alcohol use are rooted in a number of cultural, social and legal factors. The Chinese drinking culture has thousands of years of history. In ancient China, many poets wrote poems chanting the praises of alcohol (Gong, 2008). Alcohol also played an important role in Chinese imperial politics, and many historical events were related to drinking (Zhang, 2011). In China, drinking is also a social activity (Wan, 2009). Alcohol is almost always present at a Chinese banquet table, whether the purpose is to negotiate a business deal, to celebrate a social event, or to enliven a gathering among strangers. For the Chinese, serving alcohol to friends and guests is a ritualized demonstration of generosity and hospitality (Xue & Qian, 2004). They consume alcohol to relieve stress and anxiety. They also drink to express content and happiness. China’s exceptionally high tolerance for alcohol consumption has earned itself the “drinking civilization” reputation among historians (Zhang, 2011).

While researchers continue to attribute the increasing tendencies toward alcohol addiction to the pervasive drinking culture, the Chinese society at large seems to be more and more

confused about the difference between drinking, excessive drinking and alcohol addiction (Guo & Huang, 2015). To exacerbate the problem, domestic and foreign liquor, wine and beer companies, with the strong support of Chinese media and marketing industries, are successfully promoting even higher rates of alcohol consumption (Creameens, Usdan, Talbott-Forbes, & Martin, 2013). In just the first half of 2013, the Chinese alcohol industry spent \$3.5 billion on alcohol advertising, of which distilled spirits received the largest share (Wang, 2013).

Among Chinese college students, drinking alcohol is a familiar and accepted part of campus culture. Alcohol has become an indispensable part of parties or meetings that involve food, both on and off campus (Chen et al., 2013). Research has shown that 29.3% of students drink at school with friends or during meals by themselves, and 90% of college students think that drinking can help promote their social acceptability at school (Xue & Qian, 2004)). Like their seniors, many college students believe that drinking can ease their nerves and smooth over social environments (Chen et al., 2013). Although more students are becoming aware of the negative effects of alcohol abuse or addiction, most of them remain naive about alcohol use in general (Zhang, 2011). Many students believe in the health benefits of moderate alcohol consumption, and some justify their excessive drinking with the ubiquitous and uncontrollable Chinese drinking culture (Ji, 2010). Yet far too often alcohol use results in tragedy. Deaths from alcohol poisoning and from alcohol-related incidents have occurred on all types of campuses in recent years. In addition, alcohol and other drug use are a factor in the majority of accidents, injuries, vandalism, and crime on college campuses, and frequently a key factor when students encounter problems with their course work.

In 2006, the Chinese government finally set the legal drinking age at 18 (Baidu Baike, 2012). However, very few alcohol vendors actually check the age of their customers. This makes

it easier for students who are under 18 to purchase and consume alcohol. Today, college students can buy alcohol products at any supermarket or convenience store in just about every city in China.

Alcohol Advertising in China

Alcohol products have been heavily advertised through all media platforms, including print, broadcast, out-of-home and the Internet, with minimum legal restrictions in China. Case in point: Over a 30-day period in August 2013, 29 different brands of alcohol ran 1704 commercial spots on television, totalling 37800 seconds (Wang, 2013).

In 2014, the Chinese government declared some new legal restrictions on alcohol advertising, although most of them are only applicable to broadcast media, such as limiting the number of alcohol commercials to two per television show. (Net Ease, 2015; Baidu Baike, 2012). There are, however, no legal restrictions on Internet advertising. Consequently, college students who represent the heaviest Internet users are frequently exposed to online alcohol advertising (Baidu Baike, 2012).

Many alcohol advertisements are specifically targeted at college students. Some alcohol distributors even advertise on college campuses, and students are hired to distribute leaflets and put up posters. A recent study found that alcohol advertising is prevalent around schools with 20% or more student drinking population (Pasch, Komro, Perry, Hearst, & Farbskhsh, 2008). Student newspapers, campus bulletin boards and kiosks are often plastered with ads proclaiming drink specials at nearby restaurants or bars. Some advertise drinking specials and other promotions that encourage students to drink excessively (Belsock, 2008).

Unlike the United States, where more than one-fourth of universities completely prohibit alcohol use and 23% have stated policies prohibiting alcohol advertising on campus (Wechsler, Kelley, Weitzman, San Giovanni, & Seibring, 2000), only a handful of colleges in China have clearly stated alcohol policies that prohibit alcohol consumption, sales, promotions and advertising on campus. Similar to U.S. colleges, however, Chinese colleges have experienced a variety of the negative consequences of student alcohol use, including poor academic performance, accidental injuries and deaths, fighting, unplanned sexual activity, property damage, and trouble with campus or local police.

Advertising studies in China have shown that alcohol advertising creates and reinforces positive attitude toward alcohol products (e.g., Wan, 2009; Xue & Qian, 2004). Other studies found that, compared with the general population, 18-24 year-old Chinese college students were more likely to engage in heavy drinking and binge drinking, and they are also more likely to develop chronic drinking problems (e.g., Zhou, 2005). Consistent with studies done in western societies (e.g., Belstock, Connolly, Carpenter, & Tucker, 2008; Radanielina-Hita, 2013), the Chinese studies demonstrate that exposure to alcohol advertising can affect the thoughts, attitudes and behaviors of Chinese college students.

Purpose of the Study

This study attempts to answer the following questions: What are Chinese college students' attitudes toward alcohol advertising and products? To what extent do Chinese college students find themselves and others susceptible to the influence of alcohol advertising? To what extent do Chinese college students' attitude toward alcohol advertising and products affect their

perceived influence of alcohol advertising? And to what extent does the perceived influence of alcohol advertising affect their views about restrictions of alcohol advertising?

In what follows, we will first review the relevant theoretical constructs and empirical literature. A distinction between first-person effect and third-person effect is made to facilitate understanding of the perceived influence of alcohol advertising. A structural equation model, which incorporates all hypothesized relationships among the key constructs, will then be presented, followed by a survey study designed to empirically test the hypotheses.

Chapter Two

Literature Review

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

Attitude toward Advertising and Product

At the micro level, ads that are well liked are more likely to be attended to and remembered than ads that are not. This implies attitude held about an ad can predict subsequent behavior related to the advertised product. A well-liked ad creates a well-liked product (Phelps & Hoy, 1996). Petty & Cacioppo'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 brand attitude 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. Subsequent 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, 1996).

Two theoretical explanations were proposed 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 (Holbrook & Batra, 1987). 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 (Chang & Chen, 2014).

The Affect Transfer Hypothesis (ATH) is another popular 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.

At the macro level, public attitudes toward advertising in general also have been of interest to researchers for years. Advertising researchers have been interested in the impact of overall attitudes toward advertising on consumer behavior variables. Studies have suggested, for example, that consumers' attitudes toward individual advertisements are influenced by their attitudes toward advertising in general. People with more favorable feelings about advertising in

general found specific advertisements more acceptable, informative, and enjoyable (Bartos & Dunn, 1974; Bauer & Greyser, 1968; Lutz, 1985). Consumers' overall positive attitude toward all advertising is also related positively to involvement with specific advertisements (James & Kover, 1992). From a public policy perspective, concerns have been voiced that criticisms of advertising (i.e., it presents false and misleading information, it promotes undesirable values, it persuades people to buy things they do not need, etc.) may undermine its effectiveness or even lead to pleas for greater regulation (Calfee & Ringold, 1988; Pollay & Mittal, 1993).

Within the context of alcohol advertising, studies have found that adolescents and youth exposed to a greater amount of alcohol advertising were more likely to use or intend to use alcohol products than those who were less exposed (e.g., Garfield et al., 2003; Kelly & Edwards, 1998). Furthermore, several studies have shown that young people tend to view alcohol advertising as fun, youthful, and exciting, and they desire to be in situations similar to those depicted in the ads (David et al., 2004; Wyllie, 1997). Such positive attitude presumably would affect young people's perception of the influence of alcohol advertising on their attitude toward alcohol products (ATTP) as well as their views toward restrictions of alcohol advertising (ATTR).

It should be further noted that some researchers have argued that the paths of influence between attitude toward advertising and attitude toward the product may work both ways (i.e., ATTA \rightarrow ATTP and ATTP \rightarrow ATTA). The reversed path (ATTP \rightarrow ATTA) 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 alcohol advertising and attitude toward alcohol products, where attitude toward the product category as a whole predicted subsequent attitude toward alcohol advertising, but not the other way around.

Researchers also 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 et al., 2004).

First-Person 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 college students' perceived influence of alcohol advertising on themselves and on others.

The third-person effect perceptual hypothesis, first proposed by Davison (1983), predicts that individuals will perceive media messages to have a greater impact on other people than on themselves. The hypothesis has generated numerous studies in an effort to explain this phenomenon. Some researchers have argued that the third-person effect, at its heart, reflects a self-serving bias (Gunther & Mundy, 1993; Gunther & Thorson, 1992). In their meta-analysis, Paul, Salwen and Dupagne (2000) discussed varying sociological and psychological theories that have 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.

The comparison between self and others constitutes a form of unrealistic and biased optimism that is motivated by the need for ego enhancement (Brown & Stayman, 1992). 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 et al., 1999). The more negative a message is perceived, the wider the gap between its perceived influence on self and others (Eveland & McLeod 1999).

Perloff (1996) notes that the third-person effect is likely to manifest itself when media message advocates behavior that will not be beneficial for 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 to fall victim to media's influence while they do not. White (1997) also suggests that people are likely to consider themselves 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 et al. (1999) argue that the magnitude of the third-person effect perception is influenced by the social desirability of the message—the lower the social desirability of the message, the stronger the third-person effect.

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 et al. (2001) showed that support for censorship stemmed from subjects' 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, 2000).

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. 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 stronger 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.

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 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, subjects tended to recognize and admit more of an impact on themselves than others. Given young audiences often characterize alcohol advertising as fun, youthful, exciting, and thus emotional (David et al., 2004; Wyllie, 1997), 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 effect are often related. Specifically, the perceived influence of alcohol 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 individuals to project their own thoughts and feelings onto others: “what I think must be what others think” (Fields & Schuman, 1976). The looking glass perception is assumed to operate quite apart from the actual distribution of opinion. Relative to the current study, the hypothesis suggest that if college students experience the first-person effect of alcohol advertising, they would project the perceived influence onto others in the form of the third-person effect.

Chapter Three

Research Hypotheses

We have so far reviewed two separate lines of research that are closely related to the current study of alcohol advertising in China. Attitudes toward alcohol products and alcohol advertising, as discussed earlier, are indispensable concepts in studying alcohol advertising effects. The first- and third-person hypotheses provide additional 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 alcohol advertising, attitude toward alcohol products, and the perceived influence of alcohol 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. It would be interesting to see if their findings are replicated in the context of China, a country with lax alcohol purchasing, consumption and advertising regulations and known for its drinking culture. In what follows, we will present the research hypotheses and a structural model which

allows for the testing of the hypotheses. To facilitate clarity, the following acronyms will be used to represent the variables under study.

ATTA: Attitude toward alcohol advertising.

ATTP: Attitude toward alcohol products.

ATTR: Attitude toward government restrictions on alcohol advertising.

SELF: Perceived influence of alcohol advertising on oneself.

OTHERS: Perceived influence of alcohol advertising on others.

The first set of hypotheses deals with the relationships among the attitude variables (ATTA, ATTP and ATTR):

H1: There is a positive relationship between an attitude toward alcohol advertising (ATTA) and attitude towards alcohol products (ATTP). (ATTA \leftrightarrow ATTP)

H2: There is a negative relationship between attitude toward alcohol advertising (ATTA) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTA \rightarrow ATTR)

H3: There is a negative relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTP \rightarrow ATTR)

The second set of hypotheses is derived from the first- and third-effects hypotheses:

H4: There is a positive relationship between perceived influence of alcohol advertising on oneself (SELF) and attitude toward government restrictions on alcohol advertising (ATTR). (SELF \rightarrow ATTR)

H5: There is a positive relationship between perceived influence of alcohol advertising on others (OTHERS) and attitude toward government restrictions on alcohol advertising (ATTR). (OTHERS \rightarrow ATTR)

The third set of hypotheses brings together all five variables in the study: ATTA, ATTP, SELF, OTHERS and ATTR.

H6: Perceived influence of alcohol advertising on oneself (SELF) will mediate the relationship between attitude toward alcohol advertising (ATTA) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTA → SELF → ATTR)

H7: Perceived influence of alcohol advertising on oneself (SELF) will mediate the relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTP → SELF → ATTR)

H8: Perceived influence of alcohol advertising on others (OTHERS) will mediate the relationship between attitude toward alcohol advertising (ATTA) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTA → OTHERS → ATTR)

H9: Perceived influence of alcohol advertising on others (OTHERS) will mediate the relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR). (ATTP → OTHERS → ATTR)

H10: there is a positive relationship between perceived influence of alcohol advertising on oneself (SELF) and perceived influence of alcohol advertising on others (OTHERS). (SELF → OTHERS)

The structural equation model (see Figure 1) incorporates all hypotheses stated above. The five variables are treated as latent variables with multiple measured indicators.

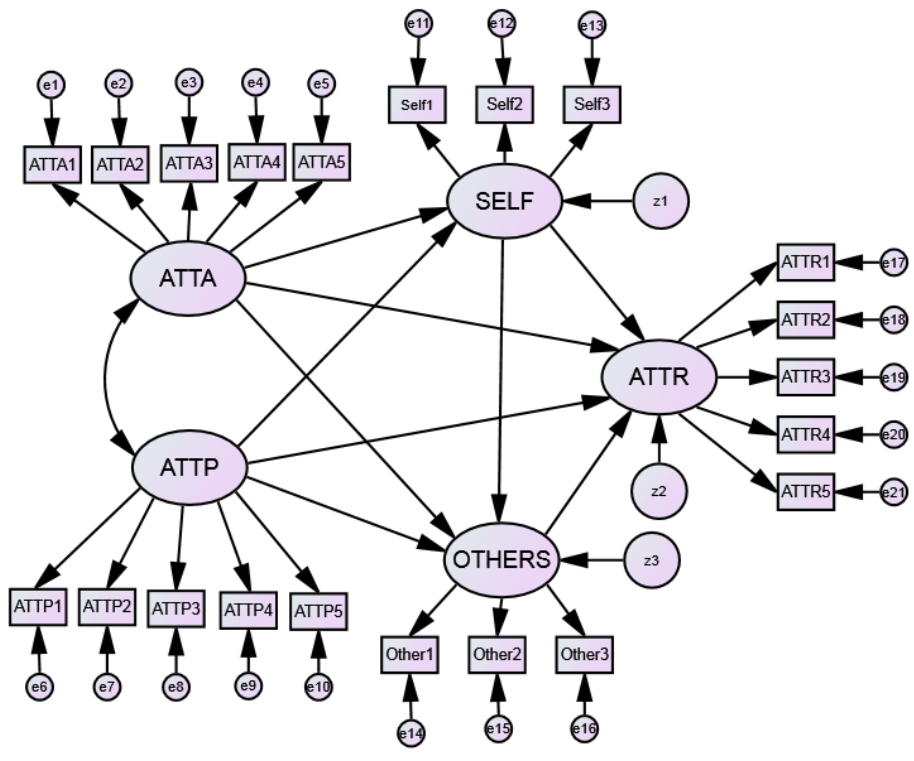


Figure 1. Structural Equation Model

Chapter Four

Methodology

This chapter explains the research design and methods that were used in the study.

Design & Sample

An online survey was conducted among 578 Chinese college students during September 2015. Sojump, a leading online survey platform was used for data collection. Sojump was established in 2001 and serves clients like WarMart, China Telecom, TCL, Siemens and P&G. Participation in the survey were strictly voluntary and the identities of respondents remain confidential before, during and after data collection. The college student respondents were recruited from different provinces in China. The distributions of their gender, academic status, age and frequency of drinking are shown in Tables 1 to 4, respectively.

Table 1

Sample Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	341	59.0	59.0	59.0
Female	237	41.0	41.0	100.0
Total	578	100.0	100.0	

Table 2

Sample Academic Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	40	6.9	6.9	6.9
	Sophomore	150	26.0	26.0	32.9
	Junior	238	41.2	41.2	74.0
	Senior	150	26.0	26.0	100.0
	Total	578	100.0	100.0	

Table3

Sample age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18.00	9	1.6	1.6	1.6
	19.00	38	6.6	6.6	8.1
	20.00	105	18.2	18.2	26.3
	21.00	140	24.2	24.2	50.5
	22.00	149	25.8	25.8	76.3
	23.00	73	12.6	12.6	88.9
	24.00	31	5.4	5.4	94.3
	25.00	11	1.9	1.9	96.2
	26.00	8	1.4	1.4	97.6
	27.00	1	.2	.2	97.8
	28.00	3	.5	.5	98.3
	30.00	1	.2	.2	98.4
	31.00	1	.2	.2	98.6

Table3 (continued)

Sample age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	34.00	1	.2	.2	98.8
	35.00	4	.7	.7	99.5
	41.00	1	.2	.2	99.7
	44.00	1	.2	.2	99.8
	54.00	1	.2	.2	100.0
	Total	578	100.0	100.0	

Table 4

Sample Drinking Frequency

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	30	5.2	5.2	5.2
	Rarely	147	25.4	25.4	30.6
	Sometimes	298	51.6	51.6	82.2
	Often	103	17.8	17.8	100.0
	Total	578	100.0	100.0	

Survey Instrument

The survey questionnaire was designed in English first and then translated to Chinese in order to be more convenient for respondents. Instructions were presented before the questions, including a confidentiality statement. The questionnaire had twenty-six questions, and it took

approximately 10 minutes to complete. The Appendix provides the English and Chinese versions of the questionnaire.

The measures of the variables in this study are modified from Begin and Liu (2006). Attitudes towards alcohol advertising (ATTA) was measured by five Likert-scale (5= strongly agree; 1= strongly disagree) questions:

1. I like alcohol advertising.
2. I don't have any problem with alcohol advertising.
3. I enjoy watching alcohol advertising on mass media.
4. I identify with the characters and situations portrayed in alcohol advertising.
5. Alcohol advertising adds more fun to drinking.

Attitudes towards alcohol products (ATTP) was measured by five Likert-scale (5= strongly agree; 1= strongly disagree) questions:

1. I hold a positive opinion for most alcoholic beverages.
2. I like liquoring, beer or wining products.
3. I like to drink alcoholic beverages.
4. I know how much drinking is too much.
5. I don't think drinking alcohol has harmful effects.

The perceived influence of alcohol advertising on oneself (SELF) was measured by 4-point scales (4=a great deal of influence, 1=no influence at all) as follows:

1. To what extent do you think alcohol advertising influences your purchase of alcohol products?
2. To what extent do you think alcohol advertising influences your consumption of alcohol products?

3. To what extent do you think alcohol advertising influences your attitude towards alcohol products?

Three 4-point (4=a great deal of influence, 3= some influence, 2= very little influence, 1= no influence at all) items were used to measure the perceived effect of alcohol advertising on others (OTHERS).

1. To what extent do you think alcohol advertising has an influence on other students' purchase of alcohol products?
2. To what extent do you think alcohol advertising has an influence on other students' consumption of alcohol products?
3. To what extent do you think alcohol advertising has an influence on other students' attitudes toward alcohol products?

Attitude toward restrictions on alcohol advertising (ATTR) will be measured by five Likert scale (5= strongly agree; 1= strongly disagree) questions:

1. Students under the age of 18 shouldn't be exposed to Alcohol advertising
2. Alcohol companies shouldn't advertise to college students.
3. Government should be planning more restrictions on alcohol advertising.
4. I support the idea of prohibiting alcohol ads from some media forms
5. I support the idea of banning alcohol ads from all forms of media.

The final part of the questionnaire contained three measures of sample demographics (age, gender, education Level) and one measure on respondents' drinking frequency.

Chapter Five

Results

Table 5 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 5

Descriptive and Reliability Statistics

	N	Mean	Std. Deviation	Cronbach's α
ATTA	578	3.5388	.70653	.842
ATTA1	578	3.4498	.86231	
ATTA2	578	3.7716	.87509	
ATTA3	578	3.4170	.92577	
ATTA4	578	3.5934	.84239	
ATTA5	578	3.4619	.99884	
ATTP	578	3.4394	.70578	.739
ATTP1	578	3.8737	.77636	
ATTP2	578	3.3287	1.03621	
ATTP3	578	3.3028	1.06952	
ATTP4	578	3.7612	.99483	
ATTP5	578	2.9308	1.13189	

Table 5 (continued)

Descriptive and Reliability Statistics

	N	Mean	Std. Deviation	Cronbach's α
SELF	578	2.6188	.74795	.778
Self1	578	2.7958	.85308	
Self2	578	2.3962	.96765	
Self3	578	2.6644	.87214	
OTHERS	578	2.7976	.68881	.785
Other1	578	2.8547	.78746	
Other2	578	2.7249	.85648	
Other3	578	2.8131	.82615	
ATTR	578	3.3716	.74034	.791
ATTR1	578	3.6315	.96427	
ATTR2	578	3.5554	.99281	
ATTR3	578	3.5000	.98031	
ATTR4	578	3.5121	.95878	
ATTR5	578	2.6592	1.11229	
Valid N (listwise)	578			

Table 6 shows that respondents in the present study exhibited, on the average, a favorable attitude toward alcohol products (mean ATTP = 3.44, SD = .71), a favorable attitude toward alcohol advertising (mean ATTA = 3.54, SD = .71) as well as a favorable attitude toward more restrictions on such advertising (mean ATTR = 3.37, SD = .74). One-sample t-test results (Table 7) showed that all three attitude means were significantly different the neutral point of 3 on the

scale ($t_{ATTA} = 18.33$, $df = 578$, $p < 0.001$; $t_{ATTP} = 14.97$, $df = 578$, $p < 0.001$, $t_{ATTR} = 18.07$, $df = 578$, $p < 0.001$).

Table 6

ATTA, ATTP, ATTR: Means and Standard Deviations

	N	Mean	Std. Deviation	Std. Error Mean
ATTA	578	3.5388	.70653	.02939
ATTP	578	3.4394	.70578	.02936
ATTR	578	3.3716	.74034	.03079

Table 7

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	18.333	577	.000	.53875	.4810	.5965
ATTP	14.969	577	.000	.43945	.3818	.4971
ATTR	12.068	577	.000	.37163	.3111	.4321

Table 8 shows a paired samples t-test that compared respondents' perceived influence of alcohol advertising on themselves and on other college students. Test results indicated that respondents tended to perceive greater influence of alcohol advertising on other college students (Mean OTHERS = 2.80, SD =.69) than on themselves (Mean SELF = 2.62, SD =.75) ($t = -6.993$, $df = 577$, $p < 0.001$).

Table 8

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	-.17878	.61463	.02557	-.22899	-.12857	-6.993	577	.000

Measurement Model Results

Table 9 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 mode

Table 9

Measurement Model Results

	Standardized Regression Weight Estimate	S.E.	C.R.	P
ATTA → ATTA1	.759			
ATTA → ATTA2	.683	.062	15.493	<.001
ATTA → ATTA3	.628	.059	14.175	<.001
ATTA → ATTA4	.646	.058	14.611	<.001
ATTA → ATTA5	.720	.068	16.392	<.001
ATTP → ATTP1	.465			
ATTP → ATTP2	.676	.212	9.423	<.001

ATTP → ATTP3	.711	.223	9.609	<.001
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Table 9 (continued)

Measurement Model Results

		Standardized Regression Weight Estimate	S.E.	C.R.	P
ATTP	→ ATTP4	.404	.160	7.069	<.001
ATTP	→ ATTP5	.593	.232	8.400	<.001
ATTR	→ ATTR1	.644			
ATTR	→ ATTR2	.556	.078	11.272	<.001
ATTR	→ ATTR3	.893	.093	15.322	<.001
ATTR	→ ATTR4	.745	.081	14.294	<.001
ATTR	→ ATTR5	.475	.087	9.824	<.001
SELF	→ Self1	.676			
SELF	→ Self2	.733	.089	14.484	<.001
SELF	→ Self3	.710	.078	14.118	<.001
OTHERS	→ Other1	.701			
OTHERS	→ Other2	.735	.076	14.685	<.001
OTHERS	→ Other3	.755	.079	14.990	<.001

Structure Model Results

Table 10 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 ($X^2 = 362.495$, $df = 179$, $p = .000$), 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. In this study, all these goodness-of-fit measures (GFI = .94; AGFI = .91; CFI = .95, TLI = .93, RMSEA = .049) indicate that the model provides acceptable fit to the data. Figure 2 is a pictorial display of the structural model results.

Table 10

Estimates of Standardized Regression Weights

			Standardized Regression	S.E.	C.R.	P
			Weight Estimate			
ATTA	→	SELF	.804	.122	5.693	***
ATTP	→	SELF	-.035	.217	-.258	.796
ATTA	→	OTHERS	.043	.139	.265	.791
ATTP	→	OTHERS	-.113	.206	-.881	.379
SELF	→	OTHERS	.909	.115	7.931	***
ATTA	→	ATTR	-.274	.194	-1.400	.161
ATTP	→	ATTR	.116	.299	.716	.474
SELF	→	ATTR	-.470	.277	-1.753	.043
OTHERS	→	ATTR	.614	.224	3.156	.002
ATTP	↔	ATTA	.861	.022	8.318	***

*** $p < .001$, $X^2 = 362.495$, $df = 179$, $p = .000$; GFI = .941; AGFI = .912; NFI = .918; CFI = .951; TLI = .933, RMSEA = .049

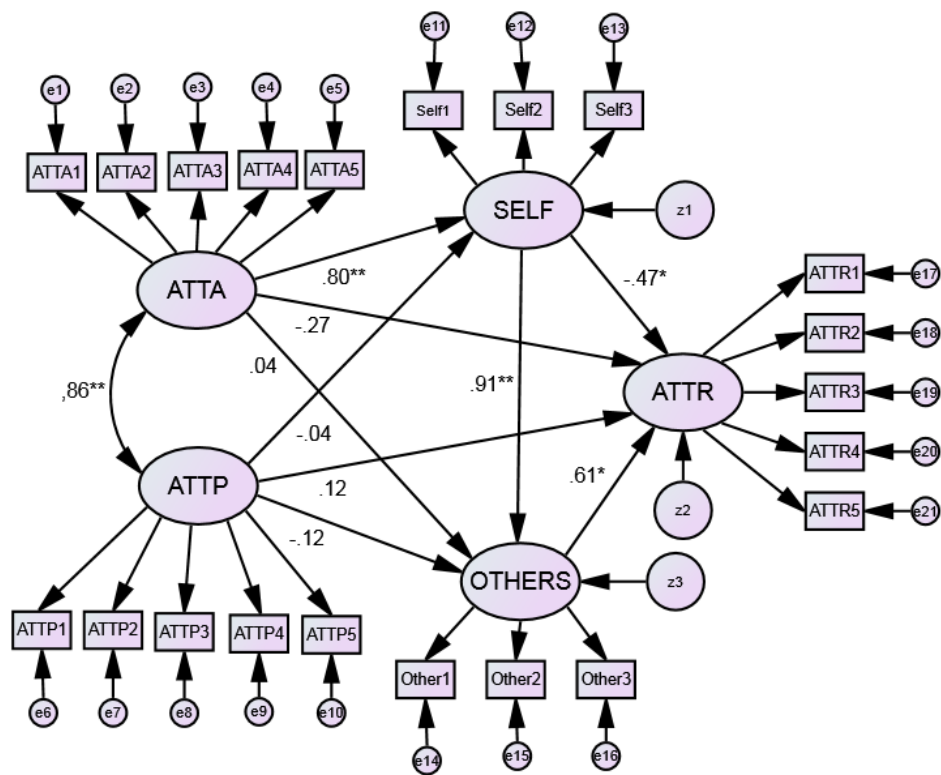


Figure 2. Structural Equation Model Results
 (*p<.05, **p<.01)

Hypotheses Testing

This section presents hypotheses testing results, starting with the hypothesized relationships among the attitude variables (ATTA, ATTP and ATTR). H1 states that there is a positive relationship between an attitude toward alcohol advertising (ATTA) and attitude towards alcohol products (ATTP). The hypothesis was supported by the positive correlation between ATTA and ATTP ($r = .861, p < .001$): As college students' attitude towards alcohol advertising becomes more favorable, so is their attitude toward alcohol products, and vice versa.

However, results failed to support H2 which states that there is a negative relationship between attitude toward alcohol advertising (ATTA) and attitude toward restrictions on alcohol advertising (ATTR) ($\beta_{ATTA \rightarrow ATTR} = -.294, p = .161$). Similarly, results failed to support H3 which states that there is a negative relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR) ($\beta_{ATTP \rightarrow ATTR} = .116, p = .474$). Both H2 and H3 were thus rejected.

In line with the first-person effect, H4 states that there is a positive relationship between perceived influence of alcohol advertising on oneself (SELF) and attitude toward restrictions on alcohol advertising (ATTR). Results of the SEM analysis showed that the relationship was significant but negative ($\beta_{SELF \rightarrow ATTR} = -.470, p = .043$). That is, contrary to the first-person effect, the stronger the perceived influence of alcohol influence on oneself is, the less favorable the attitude toward restrictions on alcohol advertising would be. Thus, hypothesis H4 was not supported.

Consistent with the third-person effect, H5 states that there is a positive relationship between perceived influence of alcohol advertising on others (OTHERS) and attitude toward

restrictions on alcohol advertising (ATTR). Results of the SEM analysis showed that the relationship was significant and positive ($\beta_{\text{OTHERS} \rightarrow \text{ATTR}} = .614, p = .002$). In other words, the stronger the perceived influence of alcohol influence is, the more favorable the attitude toward restrictions on alcohol advertising would be. H5 was thus supported.

H6 to H9 tested if the perceived influence on oneself and others would mediate the effects of attitudes toward alcohol products and advertising on attitude toward alcohol advertising restrictions. H6 states that perceived influence of alcohol advertising on oneself (SELF) will mediate the relationship between attitude toward alcohol advertising (ATTA) and attitude toward restrictions on alcohol advertising (ATTR). The hypothesis was supported by the significant ATTA \rightarrow SELF path ($\beta_{\text{ATTA} \rightarrow \text{SELF}} = .804, p < .001$) and the significant SELF \rightarrow ATTR path ($\beta_{\text{SELF} \rightarrow \text{ATTR}} = -.470, p = .043$).

H7 predicts that perceived influence of alcohol advertising on oneself (SELF) will mediate the relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR). Results showed that, despite the significant path between SELF and ATTR ($\beta_{\text{SELF} \rightarrow \text{ATTR}} = -.470, p = .043$), the path between ATTP and SELF did not attain statistical significance ($\beta_{\text{ATTP} \rightarrow \text{SELF}} = -.035, p = .796$). Thus, H7 was not supported.

H8 predicts that perceived influence of alcohol advertising on others (OTHERS) will mediate the relationship between attitude toward alcohol advertising (ATTA) and attitude toward restrictions on alcohol advertising (ATTR). Although the path between OTHER and ATTR was significant ($\beta_{\text{OTHERS} \rightarrow \text{ATTR}} = .614, p = .002$), the path between ATTA and OTHERS was non-significant ($\beta_{\text{ATTA} \rightarrow \text{OTHERS}} = .043, p = .791$). H8 was therefore not supported.

H9 prescribes that perceived influence of alcohol advertising on others (OTHERS) will mediate the relationship between attitude toward alcohol products (ATTP) and attitude toward government restrictions on alcohol advertising (ATTR). The ATTP→OTHERS path was not significant ($\beta_{\text{ATTP} \rightarrow \text{OTHERS}} = -.113, p = .379$), although the path between OTHERS and ATTR was significant ($\beta_{\text{OTHERS} \rightarrow \text{ATTR}} = .614, p = .002$). Together, the results failed to support H9.

Finally, in accordance with the looking glass perception hypothesis, H10 states that there is a positive relationship between perceived influence of alcohol advertising on oneself (SELF) and perceived influence of alcohol advertising on others (OTHERS). The hypothesis was supported by the significant path between SELF and OTHERS ($\beta_{\text{SELF} \rightarrow \text{OTHERS}} = .909, p < .001$). The result strongly suggests that respondents in this study projected their perceived influence of alcohol advertising on themselves onto the perceived influence of such advertising on other college students.

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

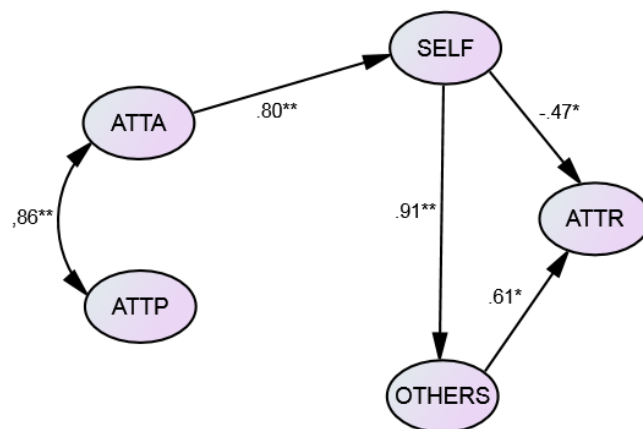


Figure 3. Significant Paths

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

Chapter Six Discussion

The purpose of this study was to explore the relationships among Chinese college students' attitudes toward alcohol products and alcohol advertising, their perceived influence of alcohol advertising on themselves and others, and their attitude toward restrictions on alcohol advertising. A series of hypotheses were proposed and tested, and the results are summarized in Table 11.

Table 11

Summary of Hypotheses Testing

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

The pervasiveness of drinking in China is clearly reflected in the present study in that the majority of respondents (94.8%) were alcohol users and most of them (69.4%) drank alcohol sometimes or often. It is therefore not surprising that respondents generally expressed favorable attitudes toward both alcohol products and alcohol advertising messages. The strong and positive correlation ($r = .86$) between ATTP and ATTA suggests that to a large extent these attitudes were indistinguishable to respondents. These favorable attitudes, however, had no direct relationship with respondents' attitude toward imposing greater restrictions on alcohol advertising (ATTR), as shown in Figure 4.

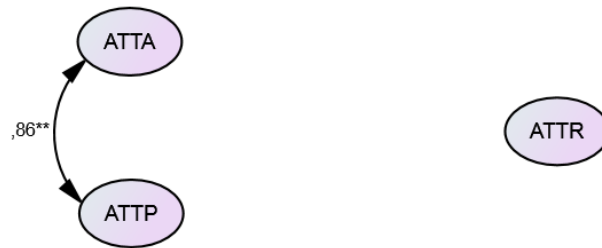


Figure 4. Relationships among Attitudes

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

The absence of direct relationships ($ATTA \rightarrow ATTR$ and $ATTP \rightarrow ATTR$) did not preclude the presence of indirect relationships among the attitude variables. As Figure 5 shows, the influence of ATTA on ATTR was mediated by SELF, the perceived influence of alcohol advertising on respondents themselves. That is, respondents not only expressed favorable attitude toward alcohol advertising, they also thought such advertising had significant influence on their

attitude toward drinking and drinking behavior. However, results also indicated that the perceived influence of alcohol advertising actually led to less favorable attitude toward more restrictions on alcohol advertising. The seemingly contracting views of respondents appear to be in agreement with Gunther and Thorson’s (1992) explication of the first-person effect of advertising. These authors argue that advertising messages, due to their positively-emotional content (through, for example, associating product consumption with fun and happiness), may actually be perceived by consumers as beneficial to their well-being, thus greater perceived first-person effect. Similarly, Eveland and McLeod (1999) argue that the first-person effect is often observed when people are exposed to desirable media content. Consistent with this line reasoning, the ATTA→SELF→ATTR mediating process suggests that respondents in this study were saying, “We like alcohol advertising because it has a positive impact on me, so do not restrict alcohol advertising for my sake.”

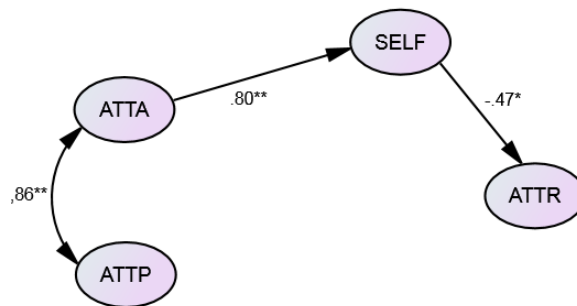


Figure 5. Relationships among Attitudes and SELF

** 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. First, as indicated above, the positive ATTA→SELF link revealed respondents' admission to the persuasive power of alcohol advertising on themselves. Second, the positive SELF→OTHERS path lent strong support for the presence of look glass perception through which respondents projected the perceived influence on themselves to that on other college students -- if alcohol advertising has an impact on me, it must also have an impact on others (Fields & Schuman 1976; Chan & Lee, 2009). To conclude the mediating process, the positive OTHERS→ATTR path suggests that respondents would be in favor of greater restrictions on alcohol advertising because of their perceived influence of such advertising on other college students.

The results thus point to the existence of opposing third-person and first-person effects of alcohol advertising. On the one hand, the perceived influence of alcohol advertising on others (third-person effect) leads to more favorable attitude toward advertising restrictions. On the other hand, the perceived influence of alcohol advertising on oneself (first-person effect) leads to less favorable attitude toward advertising restrictions. The opposing results also suggest that while respondents perceive alcohol advertising to have detrimental effects on others, they perceive the same advertising to have beneficial effects on themselves.

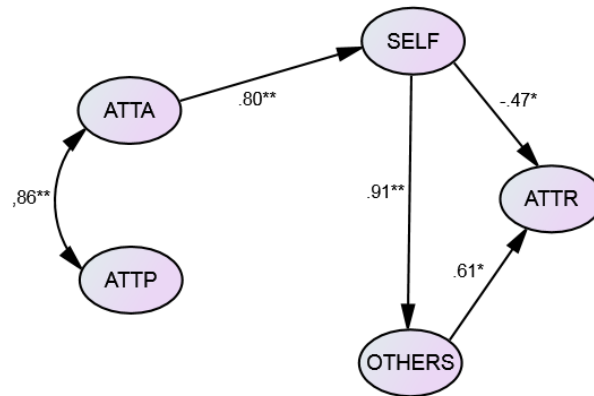


Figure 6. Relationships among Attitudes, SELF and OTHERS

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

Together, the first-person effect, third-person effect, and the highly pronounced looking glass perception observed in this study point to a complex and conflicting views of alcohol advertising. The strong tendency for respondents to project their own views onto others is consistent with the transition of values observed in several studies of the Chinese society. Several recent studies (Ren, 2012; Wang, 2011; Zhang, 2012), for instance, have noted that the generation that grew up in the 1990s might best be characterized as the “me” generation known for its egocentrism. Feng (2014) further 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 entire 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 the third-person effect suggests that 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 "Do not do to others as one would not like to have it done to oneself" (Confucius Analects, 1938) appeared to be powerful source of influence in this study. After all, it is the perceived influence of alcohol advertising on other college students that prompted respondents to express their support for restrictions on alcohol advertising. Essentially the respondents were saying no to restrictions of alcohol advertising for their sake, but yes to restrictions for others' sake.

Chapter Seven

Conclusions

This thesis represents perhaps the first empirical study of the first-person and third-person effects of alcohol advertising in China. The general results showed that the perceived influence of alcohol advertising on oneself and others had opposing mediating the effects of attitudes toward alcohol advertising on college students' attitude toward restrictions of alcohol 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 its influence on others as well as themselves. 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 of the social context and find advertising to have indirect third-person effects 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 impetus to the third-person effect in evaluating advertising influence. 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 suggest 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 the potentially harmful effects of alcohol advertising may require simultaneously addressing the two faces of advertising effects: Decrease the perceived positive, first-person effect of alcohol advertising, and increase its perceived negative, third-person effect. Communication designed to counter alcohol advertising should (1) weaken the subjectively experienced positive feelings and emotions induced by alcohol advertising, while at the same time (2) strengthen and channel the objectively experienced negative influence of alcohol advertising on significant others,

The message to alcohol marketers and advertisers in China is that consumers are willing to accept more restrictions on alcohol advertising because they are concerned about its potentially harmful effects on others. The attitude in favor of restrictions is likely to become stronger as alcohol consumption and advertising become more pervasive and popular. To Chinese government agencies or legislative bodies, this study sends a clear signal that more stringent regulations on alcohol advertising are needed to better serve the public interest.

Notwithstanding its contributions, the current study bears several 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 and 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.

References

- Agostinelli, G., & Grube, J. W. (2002). Alcohol Counter-Advertising and the Media: A Review of Recent Research. *Alcohol Research and Health*, 26(1), 15-23.
- Armstrong, T. L., & Swartzman, L. C. (2001). Cross-cultural differences in illness models and expectations for the health care provider-client/patient interaction. *Handbook of cultural health psychology*, 63-8
- Badanielina-Hita, M. (2013). *The effects of alcohol advertising on college students' behaviors: Using family communication as a protective factor against heavy drinking and risky sexual behaviors*. Retrieved from <http://hdl.handle.net/2376/4101>
- Baidu baike. (2012, January 18), Chinese Alcohol advertising management approach. *Baidu baike* Retrieved from http://baike.baidu.com/link?url=KBdsQe8BRrxuKtpwZclWnLcDQAxjRz-5ByzwnvwithnBHso9KY0sYwosub-eq8ZNUoUKDIaLYEy-cY2r2yb_8ja.
- Bartos, R. & Dunn, T. (1974). *Advertising and Consumers: New Perspectives*. New York: American Association of Advertising Agencies.
- Batra, R., & Ray, M. (1986). Affective responses mediating acceptance of advertising. *Journal of Consumer Research*, 13(2), 234-249
- Bauer, R. A., & Greyser, S.A. (1968). *Advertising in America: The Consumer View*. Boston: Harvard University, Graduate School of Business Administration.

- Begin, G. & Liu, S. (2006). Attitudinal antecedents of the first- and third-person effects of alcohol advertising on college students. *Proceedings of the Annual Conference of the American Academy of Advertising*, 64-71.
- Belstock, S. A., Connolly, G. N., Carpenter, C. M., & Tucker, L. (2008). Using alcohol to sell cigarettes to young adults: A content analysis of cigarette advertisements. *Journal of American College Health*, 56(4), 383-389.
- Bergkvist, L., & Rossiter, J. R. (2008). The role of ad likability in predicting an ad's campaign performance. *Journal of advertising*, 37(2), 85-98.
- Brown, S., & Stayman, D. (1992). Antecedents and Consequences of Attitude Toward the Ad: A Meta-Analysis. *Journal of Consumer Research*, 19(June).
- Byrne, B. (2001), *Structural equation modeling with AMOS: Basic concepts, applications, and programming*, Mahwah, NJ: Erlbaum.
- Calfee, J. E., & Ringold, D. J. (1988). Consumer skepticism and advertising regulation: What do the polls show? *Advances in Consumer Research*, 15(1), 244-248.
- Cao, J. X. (2009). The analysis of tendency of transition from collectivism to individualism in China. *Cross-Cultural Communication*, 5(4), 42-50
- Chan, J., & Lee, F. (2009) . Media use, looking-glass perception, and majority rule principle: A study of perceived public opinion. Retrieved from http://www.allacademic.com/meta/p12697_index.html
- Chang, C. W., & Chen, G. M. (2014). College students' disclosure of location-related information on Facebook. *Computers in Human Behavior*, 35, 33-38.

- Chen, Y., Guo, Y., Liu, J., Miao, S., Miao, H., & Zhang, Z.T. (2013). *The survey report about drinking issues of college students*. Retrieved from http://wenku.baidu.com/link?url=-334pEtzeHHZ0oK_Qzs8ImcpdbytYgNDsHLUbXGWuk_k3xkbz268_5mdn9FHASP-QjL4-xi2LFwzVZF7PkThKE3II3y8OT-cee1GcbjEgndO.
- Cheng, H.P. (2015, August 26). Is drinking a good habit for women? 17 harms that may bring forward to women having drinking habits. *Yang sheng zhi dao website*. Retrieved from <http://www.ys137.com/ysrq/148893.html>
- Confucius, & Waley, A. (1938). *The Analects of Confucius*. New York: Random House.
- Creameens, J. L., Usdan, S. L., Talbott-Forbes, L., & Martin, R. J. (2013). Assessment of campus alcohol policies: Implications for college administrators. *American Journal of Health Studies*, 28(1), 1-7.
- David, P., Liu, K., & Myser, M. (2004). Methodological artifact or persistent bias? testing the robustness of the third-person and reverse third-person effects for alcohol messages. *Communication Research*, (2), 206-233.
- Davison, W. P. (1983). The third-person effect in communication. *Public Opinion Quarterly*, 47(1), 1-15.
- Dupagne, M., & Salwen, M.B. (1999). The third-person effect: perceptions of the media's influence and immoral consequences. *Communication Research*, 26(5), 523-549.
- Eveland, J., William P., & McLeod, D. M. (1999). The effect of social desirability on perceived media impact: Implications for third-person perceptions. *International Journal of Public Opinion Research*, 11(4), 315-333.
- Eveland, J., William P., Nathanson, A. I., Detenber, B. H., & McLeod, D. M. (1999). Rethinking the social distance corollary. *Communication Research*, 26(3), 275.

- Everitt, B., & Dunn, G. (1991), *Applied multivariate data analysis*, London: Edward Arnold.
- Fields, J. M. & H. Schuman (1976). Public Beliefs about Beliefs of the Public. *Public Opinion Quarterly*, 40, 427-448.
- Feng, J. (2014) The post-modern tendency of post-90s: university students and its countermeasures study (unpublished master thesis). Retrieved from CMFD 2015 (in Chinese)
- Garfield, C.F., Chung, P.J., & Rathouz, P.J. (2003). Alcohol advertising in magazines and adolescent readership. *Journal American Medical Association*, 289 (18), 2424-2429.
- Gong, Y. (2008). Jiuxian temperament and Jiushen spirit. *Journal of Kangding Nationality Teachers College*, 17(2), 42-45.
- Guo, X., & Huang, Y. G. (2015). The development of alcohol policy in contemporary china. *Journal of Food & Drug Analysis*, 23(1), 19-29. doi:10.1016/j.jfda.2014.05.002
- Gunther, A.C., & Mundy, P. (1993). Biased Optimism and the Third-Person Effect. *Journalism Quarterly*, 70, 58-67.
- Gunther, A.C., & Thorson, E. (1992). Perceived Persuasive Effects of Product Commercials and Service Announcements. *Communication Research*, 19(5), 574- 596.
- Holbrook, M., & Batra, R. (1987). Assessing the role of emotions as mediators of consumer responses to advertising. *Journal of consumer Research*, 14(3),404-420.
- Huang, Y., & Tao, F. (2012). The interaction influence of high school students drinking behavior and harm health behavior. *Aihui Journal of Preventive Medicine*, 17(5).
- Kelly, K.J., & Edwards, R.W. (1998, Spring,). Image Advertisements for Alcohol Products: Is There Appeal Associated With Adolescents' Intention to Consume Alcohol. *Adolescence*, 33(129), 47-59.

- Kolstad, A., & Gjesvik, N. (2014). Collectivism, individualism, and pragmatism in China: Implications for perceptions of mental health. *Transcultural psychiatry*, 51(2), 264-285
- James, W. L., & Kover, A. J. (1992). Observations: Do overall attitudes toward advertising affect involvement with specific advertisements? *Journal of Advertising Research*, 32, 78-83.
- Ji, C.Y. (2010). Prevalence of binge drink in Chinese college students. *Chin J Sch Health*, 31(10), 1157-1158.
- Liao, J. M. (2012). The analysis of ideological and behavioral characteristics on post-90s-take college and university in Chengdu province for example (unpublished master thesis). Retrieved from CMFD 2013 (in Chinese)
- Liu, Z., Wei, P., Huang, M., & Li, X. (2013). Analysis Nanjing college students drinking and excess drinking behavior. *Chin J Sch Health*, 34(8), 983-984.
- Lutz, R.J. (1985). Affective and Cognitive Antecedents of Attitude towards the Ad: A conceptual framework. In L. Alloway, & A. Mitchell (Ed.), *Psychological Processes and Advertising Effects: Theory, Research, and Applications* (pp.45-63). Hillsdale, NJ: Erlbaum.
- MacKenzie, S., Lutz, R., & Belch, G. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(May), 130-143.
- McLeod, D. M., Detenber, B.H. & Eveland, Jr., W.P. (2001, December). Behind the Third-Person Effect: Differentiating Perceptual Processes for Self and Other. *Journal of Communication*, 678-694.
- Mitchell, A., & Olson, J. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, 18(3), 318-332.

- Net Ease, (2015, May 5). What's content of 2015 Chinese advertising laws? *Net Ease*, Retrieved from http://hebei.news.163.com/15/0505/09/AORFBVFI02790QPS_all.html.
- Paul, B., Salwen, M. B., & Dupagne, M. (2000). The third-person effect: A meta-analysis of the perceptual hypothesis. *Mass Communication and Society*, (1), 57.
- Pasch, K. E., Komro, K. A., Perry, C. L., Hearst, M. O., & Farbakhsh, K. (2009). Does outdoor alcohol advertising around elementary schools vary by the ethnicity of students in the school?. *Ethnicity & Health*, 14(2), 225-236. doi:10.1080/13557850802307809
- Perloff, R.M. (1996). Perceptions and Conceptions of Political Media Impact: the Third-Person effect and Beyond. *Psychology of Political Communication*, 177-179.
- Petty, R.E., Wegener, D.T., Fabrigar, L.R. (1997). Attitudes and attitude change. *Annual Review of Psychology*, 48, 609-647.
- Petty, C. E. & Cacioppo, J.T. (1983). Central and Peripheral Routes to Persuasion: Application to Advertising. In L. Percy & A. Woodside (Eds.), *Advertising and Consumer Psychology* (3-23). Lexington, MA: Lexington Books.
- Phelps, J. E., & Hoy, M. G. (1996). The Aad-Ab-PI relationship in children: The impact of brand familiarity and measurement timing. *Psychology & Marketing*, 13(1), 77-105.
- Pollay, R.W., & Mittal, B. (1993, July). Here's the Beef., Factors, Determinants, and Segments in Consumer Criticism of Advertising. *Journal of Marketing*, 57, 99- 114.
- Ren, Y. (2012). Introduction to the social environment and background of "after 90's" college students. *Journal of Chifeng University*, 33(12), 236-237.
- Shavitt, S., Lowrey, P., & Haefner, J. (1998). Public attitudes toward advertising: More favorable than you might think Authors. *Journal of Advertising Research*, 38(4), 7-22.

- Shen, F. (1998). Assessing advertising effectiveness: a comparison of two real-time measures of ad liking. Paper presented at the annual AEJMC conference, Baltimore, MD, August 1998.
- Shimp, T. (1981). Attitude toward the ad as a mediator of consumer brand choice. *Journal of Advertising*, 10(2), 9-48.
- Staple, G.C. (1996) 'The New Demand for Telecoms Traffic Data: From MiTT to Maps', *Telecommunications Policy* 20(8): 623–631.
- Tang, Z., Du, S., & Ma, G. (2014). The current situation and harmful of teenager drinking. *Chin J Sch Health*, 35(12), 1918-1920.
- Wan, X. (2009). Interpretation from the perspective of cross-cultural communication between Chinese and western wine culture. *Gan Su Ke Ji Zhong Heng*, 38(3), 160-161.
- Wang, J.F. (2012, December 06) Drunken singing the wrong room causing fights and a people were killed. *Net Ease*. Retrieved from <http://news.163.com/12/1206/03/810RH5K700014AED.html>
- Wang, S. (2011). After 90 s "college students growing up environment. *Reform and Opening*, 174-175.
- Wang, Y. J. (2014, December 03). China's 60000 people die each year from traffic accidents. *China news*. Retrieved from <http://www.chinanews.com/fz/2014/12-03/6838512.shtml>.
- Wang, Z.X. (2013, February 28). Rumors that 29 brands of white wine removed from CCTV in one-day causes chaos among wine industry. *Jiu.sohu*. Retrieved from <http://jiu.sohu.com/news-909.html>.
- Wechsler, H., Kelley, K., Weitzman, E. R., San Giovanni, J. P., & Seibring, M. (2000). What colleges are doing about student binge drinking a survey of college administrators. *Journal of American College Health*, 48(5), 219-226.

- White, H. A. (1997). Considering interacting factors in the third-person effect: Argument strength and social distance. *Journalism & Mass Communication Quarterly*, 74(3), 557-564.
- Wyllie, A. H. (1997). Considering Interacting Factors in the Third-Person Effect: Argument Strength and Social Distance. *Journal and Mass Communications Quarterly*, 74(3), 557-564.
- Xue, J., & Qian, L. (2004) Survey on drinking issue of college students: necessity of regulating the surveyed issue. *Chinese Journal of Drug Abuse Prevention of Treatment*, 10(5), 272-.275.
- Yelkur, R., Tomkovick, C., Hofer, A., & Rozumalski, D. (2013). Super Bowl ad likeability: Enduring and emerging predictors. *Journal of Marketing Communications*, 19(1), 58-80.
- Zhang, G. (2011). Discussion on Wine Culture and Wine Civilization. *Liquor-Making Science & Technology*, 6(204), 113-115.
- Zhang, Q. (2012). Study on the Value of 90's Students-take college and universities in Qinghai Province for example (unpublished master thesis). Retrieved from CMFD 2013 (in Chinese).
- Zhou, R.T. (2005). The study about present situation and countermeasure of college students risk behaviors. *Youth & Juvenile Study*, 49(3), 33-34.

Appendix

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 alcohol products and advertising. 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."

Attitudes towards alcohol adverting

1. I like alcohol advertising

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

2. I don't have any problem with alcohol advertising.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

3. I enjoy watching alcohol advertising on mass media.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

4. I identify with the characters and situations portrayed in alcohol advertising.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

5. Alcohol adverting adds more fun to drinking.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

Attitude towards alcohol product

6. I hold a positive opinion for most alcoholic beverages.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

7. I like liquoring, beer or wining products.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

8. I like to drink alcoholic beverages.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

9. I know how much drinking is too much.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

10. I don't think drinking alcohol has harmful effects.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

Perceived influence of alcohol advertising on oneself (SELF)

11. To what extent do you think alcohol-advertising influences your purchase of alcohol products?

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

12. To what extent do you think alcohol adverting influences your consumption of alcohol products?

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

13. To what extent do you think alcohol adverting influences your attitude towards alcohol products?

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

Perceived influence of alcohol advertising on others (OTHERS)

14. To what extent do you think alcohol advertising has an influence on other students' purchase of alcohol products?

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

15. To what extent do you think alcohol advertising has an influence on other students'

consumption of alcohol products?

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

16. To what extent do you think alcohol advertising has an influence on other students' attitudes

toward alcohol products?

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

Attitude toward restrictions on alcohol advertising (ATTR)

17. Students of under the age of 18 shouldn't be exposed to alcohol advertising.

1. Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

18. Alcohol companies shouldn't advertise to college students.

1. Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

19. Government should be planning more restriction on alcohol advertising.

1. Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

20. I support the idea of prohibiting alcohol ads from some media forms.

1. Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

21. I support the idea of banning alcohol ads from all forms of media.

1.Strongly disagree 2. Disagree 3. Natural 4. Agree 5. Strongly agree

Personal Information

22. How often do you drink liquor, wine, beer or any alcohol drinking?

1. Never 2.rarely 3. Sometimes 4. Often

23. What is your age: _____

24. What is your current status?

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

25. What year are you in university?

1. Freshman 2. Sophomore 3. Junior 4. Senior 5. Graduate 6. Other (please specify) _____

26. What is your gender?

1.Female 2.Male

Survey Questionnaire (Chinese)

问卷

回答问卷之前,请仔细阅读本同意书。

感谢您抽出时间来参与这项研究。您的参与是完全自愿的,拒绝参加是没有惩罚的。这份问卷的答案将有助于完成一个硕士论文。如果有让您觉得不舒服的内容和问题您可以在任何时间终止这份问卷,您也可以拒绝回答任何问题。此外,你贡献的信息将保密。除研究员以外,没有其他人有机会接触到此问卷。此外,为了保护您的隐私,您不需要在调查中写你的名字。本研究没有任何相关的风险,您的参与无利害关系。

大学生消费者对酒类产品广告的态度

对酒类产品广告的态度

1. 我喜欢酒类产品广告

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

2. 我对于酒类产品广告没有反感

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

3. 在媒体上观看酒类产品广告可以给我带来乐趣

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

4. 我可以认同酒类产品广告的内容

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

5. 酒类产品广告使我觉得喝酒有更多乐趣

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

对酒类产品的态度

6. 我不反对喝酒

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

7. 我喜欢喝有酒精含量的饮料

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

8. 我喜欢喝烈酒，啤酒 或者葡萄酒。

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

9. 我非常清楚喝多少酒是过度饮酒

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

10. 我认为喝酒可以带来一些负面的影响。

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

关于酒类产品广告对自己的影响

11. 您认为酒类产品广告对您自己购买酒类产品有多大的影响？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

12. 您认为酒类产品广告会影响你自己喝酒的频率或数量吗？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

13. 您认为酒类产品广告会影响你自己对待酒类产品的态度吗？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

关于酒类产品广告对他人的影响

14. 您认为酒精广告对其他大学生购买酒类产品有多大影响？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

15. 您认为酒类产品广告会影响其他大学生喝酒的频率或数量吗？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

16. 您认为酒类产品广告会影响其他大学生看待酒类产品的态度吗？

1. 没有影响 2. 轻微影响 3. 一般影响 4. 很大影响

关于限制酒类产品广告的态度

17. 法律对酒类产品广告收视者年龄应该有所限制

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

18. 酒类产品广告不应该以大学生为目标市场

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

19. 政府应该制定更多限制酒类产品广告条例

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

20. 政府或有关部门应该限制在某些媒体上出现的酒类产品广告

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

21. 政府应该禁止所有媒体上出现的酒类产品广告

1. 非常不同意 2. 不同意 3. 中立 4. 同意 5. 非常同意

22. 你经常饮酒吗？

1. 从不 2. 很少 3. 偶尔 4. 经常

23. 您的年龄是 _____

24. 您目前是

1. 尚未进入大学 2. 在校大学生 3. 已经大学毕业

25. 您目前所在的年级？

1. 大一 2. 大二 3. 大三 4. 大四 5. 研究生

26. 您的性别

1. 男 2. 女

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

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

RE: **Exempt Certification**

IRB#: Pro00023759

Title: First- and Third-Person Effects of Alcohol Advertising on Chinese College Students

Dear Dong Xue:

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):

[protocol guideline](#)

Consent/Assent Document(s):

[consent form](#)

[consent form Chinese](#)

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,



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