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Attitudinal Antecedents of the First- and Third-Person Effect of Alcohol Advertising On College Students

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Attitudinal Antecedents of the First- and Third-Person Effect of Alcohol Advertising On

College Students

by

Georgia Begin

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
School of Mass Communications
College of Arts & Sciences
University of South Florida

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Abstract

Data collected from a survey questionnaire via personal interviews among 488 college students was used to examine relationships among attitude toward alcohol advertising, attitude toward alcohol beverages, perceived influence of alcohol advertising on oneself, perceived influence of alcohol advertising on others, and attitude toward restrictions of alcohol advertising. Results supported the hypothesized direct effect of advertising attitudes and product attitudes on attitude toward restrictions. Also supported was the indirect effect of advertising and product attitudes on attitudes toward restricting alcohol advertising via such mediators as perceived influence of the ads on self and others using the theories of first- and third- person effects. Implications for future research, public policies, and marketing practices - including responsibility marketing - are discussed.

Chapter One

Introduction

Overview

Alcohol abuse is the leading drug problem among America's youth today (O'Hara, 2003). Eighty percent of college students drink alcohol beverages, while 40% engage in heavy episodic drinking, 30% meet criteria for alcohol abuse and 6% for alcohol dependence (Collins, Ellickson, Hambarsoomians, & McCaffrey, 2005). Each year, an estimated half-million college students aged 18-24 suffer unintentional injuries while under the influence of alcohol, and at least 1,400 college student deaths a year are linked to alcohol (O'Hara, 2003). Furthermore, college students engage in heavy episodic drinking at higher rates than their same-aged peers who don't attend college.

High-risk drinking also results in assaults, and other health and academic problems, and is a major factor in institutional property damage (Hingson, Hareen, Zakocs, Kopstein, & Wechsler, 2002). The consequences of excessive and underage drinking affect virtually all college campuses, college communities, and college students, whether they choose to drink or not. Knowing that this excessive alcohol consumption is a significant national problem, universities have undertaken a number of campaigns to reduce problem drinking, and despite stepped-up efforts on the part of college and universities over the past decade to change their drinking culture, a study shows that binge drinking is just as common on campuses today as it was in the early 1990s (Rimal & Real, 2005).

Research shows that college students tend to harbor exaggerated perceptions about the prevalence of drinking in their midst; and the greater the prevalence perceived by students, the more likely they are to construe their own consumption as being normative (Perkins & Berkowitz, 1986).

Statement of the Problem

One factor leading to this perception of normalcy is the media exposure to alcohol marketing that is a constant in the lives of college students. People in this demographic, some of whom are not yet the legal drinking age, are exposed to more alcohol advertising in the forms of print, outdoor, radio, and television, and are the primary recipients of the newly-created viral and buzz-marketing, a grass-roots marketing campaign inherently targeting students on college campuses. Students who were highly exposed to media alcohol advertisements consumed more alcohol in all three categories (beer, wine, liquor) than those with low exposure (Collins et al., 2005). In fact, Collins et al. found that advertisements for distilled spirits had the most influence over college students to drink alcohol, even more so than peer pressure or colleague behavior. A 2002 study found a direct correlation of college-student binge-drinking to alcohol advertising, and has linked the level of binge-drinking on college campuses to high levels of alcohol advertising. The results indicate that the “wet” alcohol environment around college campuses – including lower sale prices, more promotions, and alcohol advertising at both on- and off-premise establishments - was correlated with higher binge-drinking rates on campus. The more advertising and

promotions there were on and around college campuses, the higher the binge-drinking rates.

Advertisements had powerful effects on both drinking and non-drinking college students increasing perceptions of benefits, decreasing perceptions of risk, and making drinking more attractive (Blood & Snyder, 1991). A recent study suggests that the regulation of marketing practices such as advertising and promotion may be an important factor in reducing binge-drinking on college campuses (Kuo, Wechsler, Greenberg, & Lee, 2003). College administrators have a role in the attempt to control college-student binge-drinking rates by not allowing or accepting advertising and promotions dollars to be spent on campus. A 2003 survey of 700 college administrators revealed that only 50% of those colleges prohibited alcohol ads in campus newspapers for off-campus bars and clubs, however, most schools prohibited alcohol advertising at sporting events (Mitchell & Olson, 1981).

Many groups are concerned with controlling youth exposure to alcohol advertising, and the alcohol industry claims not to recruit new consumers with their advertising, but only to solidify brand loyalty. The industry's own guidelines for marketing to youth have not lived up to the expectations of the public and groups concerned with protecting underage drinkers. The Distilled Spirits Council of the U.S. (DISCUS) advertising guidelines for protecting underage youth from exposure to messages includes placement that limits media vehicles to 50% or greater adult audience. In 1999, the FTC urged distilled spirits manufacturers and brewers to adhere to a standard of advertising placement that includes underage audience members to be 25% or less. The protection group Mothers Against Drunk Driving (MADD) wants the

standard to be set at 10% youth audience, and the American Medical Association (AMA) desires a complete ban on alcohol ads (camy.org, 2003). According to the Center on Alcohol Marketing and Youth (CAMY), young people under the legal drinking age were the primary target market for alcohol ads in magazines in 2001, despite the industry's claim to the contrary (camy.org, 2003). Underage youth saw 95% more beer advertising than did adults aged 35 and up; and 25 alcohol brands placed all of their ads in youth-oriented magazines.

As the population of the United States ages and alcohol consumption declines, the alcoholic beverage industry has a greater economic stake in recruiting young, heavy drinkers. Despite recent increases in federal support for drug education in the public school system and increasing public recognition of the seriousness of alcohol problems among youth, alcohol advertising continues to present drinking as normal, glamorous, and consequence-free, according to CAMY (camy.org, 2003). As a result, widespread concern exists among policymakers and the public about the potential effects of alcohol advertising on alcohol consumption and problems, especially among adolescents and youth. A recent national survey indicates that 67% of adults in the United States support banning liquor advertisements on television, and 61% favor banning beer and wine advertisements in this medium (Wagenaar, Murray, & Geban, 2000). Similarly, public health advocates routinely call for the strict regulation or even elimination of alcohol advertising; and initiatives at the community level frequently focus on reducing local alcohol advertising (Agostinelli & Grube 2002). Saffer and Dave (2002) found that alcohol advertising bans decrease alcohol consumption and that in implementing one [media] type of ban could reduce overall consumption by 5-8%. Comprehensive bans

on all forms of advertising and promotions can eliminate options for substitution and be potentially more effective in reducing consumption. However, advertising cannot be reduced with limited bans which are likely to result in substitution to other available media (Saffer, 2002). The AMA, MADD, the American Academy of Pediatrics (AAP), and other groups in 1996 banded together and persuaded NBC to stop airing national television ads for liquor products only three months after the decision to air them. The fact that interest groups could sway media outlets to restrict a form of speech is especially interesting in mass communications research because of fears that any form of banning or censorship could result in exaggerated outcomes and set precedence for future justification of censorship. According to Saffer and Dave (2002), the focus on advertising bans is important because bans are a likely choice of public policy for the control of alcohol.

Despite the efforts to counteract the pervasiveness of alcohol advertising, certain aspects of alcohol advertising itself appear to be particularly attractive to young people. These include the use of sports imagery, and the frequent use of image advertising in general - as opposed to advertising that makes claims about the quality or production of the product. Not surprisingly, it is found that college students generally hold a positive attitude toward alcohol advertising (Wyllie, Fang, & Caswell, 1998b). The fact that more than 80% of college students drink alcoholic beverages suggest that their attitude toward alcohol products is all but negative (O'Hara, 2003). However, students are able to change their drinking attitudes relatively quickly if enlightened in a unique manner to the outcomes of excessive drinking, which was evidenced in a recent study by Jewell, Hupp, and Luttrell (2003). The investigation proved that when college students

experience negative outcomes of alcohol consumption themselves, they can radically change their positive views of drinking and of alcohol products. In this study, students were asked to wear fatal-vision-goggles, a type of vision wear used by police and teachers to demonstrate to youth what it's like when you are intoxicated. The students were then asked to perform sobriety and mock-driving tests in a controlled setting. Previous to the experiment, students' attitudes on drinking and driving were collected and it was revealed that those who already drank alcohol had favorable attitudes toward drinking and driving. After wearing the goggles and performing the tasks, most subjects experienced a significant decline in their attitude toward drinking and driving and thus simply participating in the experiment had enough of an impact to change attitudes. More importantly, the students reduced their own consumption and they also become advocates for others to abstain from alcohol use, especially when expecting to drive. College students could have similar reactions to alcohol advertising when made aware of the effects of the ads on their own behavior and the behavior of other college students. It is possible that this primary target market for alcohol advertising would become advocates of restricting ads aimed at their peers which would place great pressure on the alcohol industry to change their promotional practices.

Significance of the Study

The purpose of this study is to answer the following questions: To what extent do college students find themselves susceptible to the influence of alcohol advertising? To what extent do college students' attitude toward alcohol advertising and products in general 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 reasoning. 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 model.

Chapter Two

Review of Related Literature

The Third-Person Effect

Recent research in public opinion and mass communications points to the need to differentiate 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 other college students.

The third-person effect perceptual hypothesis, first proposed by W.P. 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 other constitutes a form of unrealistic and biased optimism that is motivated by the need for ego enhancement (Dupagne & Salwen, 1999). 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, Detenber, & Eveland, 2001). The more negative a message is perceived, the wider the gap between its perceived influence on self and others (Eveland & McLeod, 1999). The significance of the third-person perception is in its tendency to lead individuals to advocate action to protect others from the perceived harmful influence of the media (Gunther, 1991). This feeling of others being more influenced by media tends to create paternalistic attitudes in people who fall victim to the third person effect; which leads to the desire by some to protect those people they feel are affected. Perloff (1996) notes that the third-person effect is likely to manifest itself when media messages advocate 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. Wyllie (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 and McLeod (2001) 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.

Aside from the feeling of protecting those more vulnerable to negative media influences, the third-person effect is also linked to a subject's belief that negative consequences won't happen to them (Paul, Salwen, & Dupagne, 2000). This process identifies people's ability to distinguish between societal-others and personal-self-level effects from media, and it also identifies that media messages influence people's

perceptions of risk or harm (Tyler & Cook, 1984). The spectrum of what constitutes social desirability fluctuates with individuals and within the given community, but is a predictor and an independent variable of the third-person effect (Banning 2001; Eveland, Nathanson, Detenber, & McLeod, 1999).

The First-Person Effect

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 more effect on themselves. Gunther and Mundy (1993) point out that as interest in the message increases, so does the perceived influence on ourselves. Eveland and McLeod (1999) argue that ego enhancement is also responsible for the observed first-person effect where people view themselves as more persuaded by desirable media content.

It is important when discussing third-person effect to distinguish between messages that are intended to inform, such as news, and those that are intended to persuade such as advertising, to recognize accepted social roles of each domain (Gunther & Thorson, 1992). Specifically, exposure to news is both sought-after and socially desirable, while advertising is usually an event to avoid. A national survey by DDB Needham Worldwide in 1989 revealed that sixty-six percent of respondents report that advertising “insults their intelligence.” Furthermore, people will perceive the two domains accordingly and will show domain-specific processing patterns. Since being

persuaded by advertising is often viewed as detrimental, the general sphere of advertising would thus be 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 self and others were equally affected by the positive-emotion message, subjects tended to recognize and admit more of an impact on themselves in these positive situations. Given young audiences often characterize alcohol advertising as fun, youthful, exciting, and thus emotional, one would expect such advertising to induce the first-person effect as well (David, Liu, & Meyer, 2004; Wyllie et al., 1998b). People who are experiencing the positive emotions while viewing messages should then be more likely to agree that the persuasion is not bad or undesirable, as well as admit that they themselves are more likely to be persuaded than others; in other words, a first-person effect.

There are times when the desirability of content under study may depend on respondents' predispositions regarding the issues (Salwen & Dupagne, 1999). A recent study discovered that the third-person effect occurred during negatively-stigmatized product ads six times more frequently than in ads for neutral products. A degree of social stigma might be said to be attached to any product depending on one's perspective; however, certain products have attained a more general negative societal stigma, as illustrated by major public service campaigns generating awareness of the negative aspects of these products such as cigarettes and alcohol (Banning, 2001). The designation of the term negative does not refer to the message or tone of the

advertisement; it would be expected that ads are all positive because the selling nature of the ad; therefore the term negative refers only to a product's standing from a societal perspective (Banning, 2001). In the present study, alcohol will be difficult to define as having either a positive or negative societal stigma. Excessive alcohol consumption is widely known to have damaging outcomes (negative); however, these products are held in high esteem by most college students (positive) as evidenced by the number of students who drink and their drinking statistics.

The Behavioral Aspect of the Third-Person Effect

The behavioral aspect of the third-person effect states that people will act on their perception of the media influencing other people by advocating restrictions on communication. From its inception, concern over the third-person effect stemmed from the possibility that strategic social action might be taken based on the over-estimation of media effects on others (Davidson, 1983). Several studies have linked the third-person effect perception to support for censorship (Gunther, 1991; Eveland & McLeod, 1999; Rojas, Shah, & Faber, 1996; Salwen, 1998). Rojas et al. (1999) argued that third-person effect perception involves two distinct effects – individuals' judgments of others' susceptibility to media communications, and their beliefs about the severity of effect outcomes (Salwen & Dupagne, 1999). Researchers see the behavioral aspect of the third-person effect as the more socially relevant phenomenon because of the possible support for censorship (McLeod et al., 2001). According to McLeod et al. (2001), the third-person perception has been shown to be a meaningful predictor of people's willingness to impose limits on certain types of communication.

Studies have found in most instances, empirical support for a link between the third-person effect and censorship. Willingness to support censorship was attributable to the perception that others were not wholesome enough to resist immoral influences (Salwen, & Dupagne, 1999). In many studies, subjects supported limiting access to what was perceived as negative media content that they believed would affect others. In some instances, researchers concluded that this type of support for limiting access to media was due in part from a paternalistic attitudes and the need to feel like one is protecting others from harmful media effects (McLeod et al., 2001).

The findings in each of these studies reaffirm robust support for the third-person perceptual hypothesis; however, Salwen and Dupagne (1999) found that in regards to the behavioral hypothesis, effect perceptions were issue-dependant (Salwen & Dupagne, 1999). In most cases, researchers selected issues or content presumed to be undesirable to believe (Salwen & Dupagne, 1999). Studies have linked greater third-person effect with support for censorship of rap music (Eveland and McLeod, 1999), pornography, television violence (Rojas et al., 1996), and political campaigns (Salwen, 1998). According to Eveland and McLeod (1999), an issue that influences whether someone is willing to impose limits on expression may be related to the question, “who’s ox is being gored?” Individuals may ask whether this content or message is one for which they would like to have access. Examples would be pornography or rap music. The people who buy and use pornography or rap music, it would seem, would be unwilling to allow it to be banned or censored. For the present study, college students will be asked about their attitudes toward censorship (or restrictions) of alcohol advertising in the variable “attitude toward advertising restrictions,” (ATTR).

It is important to note here concerning the advertising of alcohol: censoring or restricting the advertisement does not have the same outcome as censoring rap music or pornography. Eliminating ads for alcohol does not mean that you will no longer be able to consume it - as it would mean if rap music and pornography were censored. This factor may be an important element in determining attitudes toward censorship. People having attitudes in favor of censorship is important because they may support restrictions on media content and encourage policy makers to change laws favoring their position (Eveland & McLeod, 1999).

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 hypotheses 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. Considering all the evidence in the first- and third-person effects, the following research questions and hypotheses are formed:

Research Questions and Hypotheses

RQ1: What is the relationship between perceived influence of alcohol advertising on self (SELF) and on others (OTHERS)?

H1: Perceived influence of alcohol advertising on self will be positively related to perceived influence on others. (SELF → OTHERS; OTHERS → SELF)

RQ2: What is the relationship between perceived influence of alcohol advertising (on SELF and OTHERS) and attitude toward greater restrictions on alcohol advertising (ATTR)?

H2-a: There will be a positive relationship between SELF and ATTR. (SELF → ATTR)

H2-b: There will be a positive relationship between OTHERS and ATTR. (OTHERS → ATTR)

RQ3: What is the relative influence of perceived effect of alcohol advertising on self (SELF) and others (OTHERS) on attitude toward restricting alcohol advertising (ATTR)?

H3: SELF → ATTR ≠ OTHERS → ATTR

Attitude

Attitudinal Overview

Attitude can be described as an individual's internal evaluation of an object, such as a branded product (Mitchell & Olson, 1981). Attitudes are often considered relatively stable and enduring predispositions to behave, so they should be useful predictors of consumers' activities with a product (Mitchell & Olson, 1981). According to previous studies, an ad affects consumers' beliefs first; then influenced salient beliefs mediate the marketing variable's effect on attitude, and attitude in turn, mediates subsequent effects on behavioral intention (Mitchell & Olson, 1981). Ajzen and Fishbein (1980) conceptualize attitude as having three forms of expression: cognitive (beliefs), affective (feelings) and conative (behavior). The most prevalent means of measuring [adolescents'] attitudes appears to be an affective measure either in terms of preferences or liking (Phelps & Hoy, 1996). The attitudes to be examined in this study are attitude toward the ad (ATTA) which is measured by liking of alcohol ads in general, attitude toward the product (ATTP), measured by opinions and behaviors with alcohol, and attitude toward the restriction of alcohol advertising (ATTR).

Attitudinal Antecedents to Perceived Influence

Public attitudes toward advertising in general 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 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).

Attitude Toward the Ad

According to Shen (1998), ads that are well-liked are more likely to be attended to and remembered than ads that are not, thus attributing to higher elaboration conditions and greater attitudinal affects guiding long-term behavior. This implies attitudes 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). In Petty & Cappicio's (1983) study of advertising effects, findings revealed that subjects' attitudes toward an advertised product were influenced more by their attitude toward the ad, or the ad's likeability, than their thoughts about the actual product (Yates, 2001). Likeability, and is the single biggest predictor of advertising effectiveness which necessitates changes in attitudes and behavior; although studies reported by Blair & Rosenberg (1994) did not support this conclusion (Wyllie et al., 1998a).

A category of advertising with known high impact is one that creates positive emotions in the viewer; for instance, ads that arouse any type of moderate feelings have been shown to be associated with more positive brand attitudes and a greater intention to purchase than ads that do not create such emotions (Gunther & Thorson, 1992). As people experience positive emotions during a message, they are likely to retrieve positive material from memory which in turn influences decision-making (Gunther & Thorson, 1992). A 1992 study by Gunther and Thorson examined estimates on self and others in relation to product ads that contained an emotional appeal. The authors found that even though self and other should be equally influenced by a positive-emotion message, people tended to recognize and admit to the impact of such a message more so on themselves. According to the study: “As emotional impact ratings increased, there was an apparent linear trend in estimated persuasive effects. The ad with the lowest emotion rating was seen to have the most negative impact. As emotion ratings increased, perceived impact moved steadily towards the positive, so that the ad rated highest on emotional content had the strongest perceived positive impact on the self (Gunther & Thorson, 1992).” The bearing of experiencing positive emotions while viewing a message on the third-person effect should be to increase someone’s willingness to detect influences on themselves, thus possibly enabling a first-person effect. According to Gunther and Thorson (1992), perceived impact has a lot to do with how socially-desirable the respondents view the impact.

Given that all ads treat their subject matter in a positive light, any expected attitude toward the ad (ATTA) should be a positive one unless subjects already have a negative attitude toward the product (ATTP). A positive ATTA would normally result

in a first-person effect from the media exposure, (not a third-person effect), for morally-valued messages, emotionally appealing ads and perhaps even for well-liked messages (McLeod et al., 2001; Phelps & Hoy, 1996). We do know based on previous studies (David et al. 2004; Wyllie, 1997; Wyllie et al., 1998a) that alcohol ads are well-liked and sometimes college students' favorite ads on television; also, we know alcohol use is prevalent on college campuses. Additionally known is that alcohol advertising and products have an overall negative societal stigma, so it may be reasonable to predict outcomes in our study to include both a first-person effect from alcohol advertising due to ad-liking, as well as third-person effect due to the negativity perceived from alcohol advertising.

Several recent studies have found that adolescents who are exposed to greater amounts of alcohol advertising are more likely to use or intend to use such products (Garfield, Chung, & Rathouz, 2003). Researchers found a positive relationship between the preference for [alcohol] advertising and the intention to consume alcohol by teens (Kelly & Edwards, 1998). A recent study proved that positive responses to televised beer advertisements, measured by likability (ATTA), contributed to the quantities of alcohol being consumed by 18-29 year-olds (Wyllie et al., 1998b). The ads evaluated provided venerated outcomes for the test subjects such as peer group acceptance, appealing role models, and having fun. The respondents reacted more positively to the ads with these valued outcomes than those that were less relevant to them (Wyllie, 1997). The importance of ad liking, in keeping with Bandura's Social Learning Theory, is that people are more likely to model behavior they believe has the outcomes they value. Attitude toward the ad research has found that audiences develop a generally

good feeling about a brand when they like the commercials (Eveland & McLeod, 1999). The liking of an ad therefore creates scenarios in the consumer's mind that they try to duplicate in their own lives. It is for this reason why teen and college student exposure to the enjoyable alcohol ads are under scrutiny.

The subject matter in this study is uniquely different from previous research because we are considering a well-used, well-accepted product by the subjects of the current study (college students) which is also recognized to be a harmful substance when used irresponsibly and excessively, thus creating the potential outcomes of the study to be divergent (both first- and third-person effects). It is documented in previous studies (Wyllie, 1997; David et al., 2004) that adolescents and college students enjoy ads for alcohol products and desire to be in situations similar to those shown in ads. The advertisements are fun, youthful, and exciting. If you were to consider any other product, one which does not have a negative social stigma, you would be likely to hypothesize there to be a first-person effect from the ads based on research by David et al. (2004). However, considering the product examined in the study is alcohol, we expect there to also be a significant third-person effect, even though the subjects' may have a positive attitude toward the ad (and may also experience first-person effect), results should be consistent with those found in third-person effect research.

Attitude Toward the Product

Past studies examining the phenomenon of attitude toward the brand have focused on specifically advertised brands, not product categories as a whole. The current study is somewhat exploratory in nature because subjects will not be asked

about specific alcohol brands. Rather, we group together all alcohol brand-advertising into one contiguous group for the purposes of obtaining an aggregate attitude toward alcohol products advertised, including any beverage that contains alcohol (beer, wine, hard liquor) and call this group attitude toward the product (ATTP). This is done not only for simplicity, but also to identify general attitudes harbored for any and all items in this group which can be said to have the same intended use, and similar conditions of purchase and consumption on college-campuses. Therefore, in this study, when discussing past findings of attitude toward the brand, we will identify this term as attitude toward the product (ATTP) for our own purposes.

Many previous studies have tied together the concepts of ATTA and attitude toward the brand [ATTP] and have described ATTA to be a substantiated predictor and mediator of ATTP, a unidirectional relationship, for both familiar and unfamiliar brands (Phelps & Hoy, 1996). ATTA is thought to affect ATTP reflecting consumer perception of an affective and evaluative overlap between a brand and its message (Curlo & Chamblee, 1998). What this means is that if viewers don't have an opinion about a product before seeing an ad, the ATTA will affect ATTP (a well-liked ad will mean a well-liked product and vice versa) (Phelps & Hoy, 1996). Mitchell and Olson (1998) argued that previous findings in the relationship between ATTA-ATTP were flawed because researchers failed to account for prior brand attitude, they found evidence that although the ATTA-ATTP relationship was a well-documented one, it did not exist for familiar brands. However, Phelps and Hoy (1996) found ATTA to be a significant predictor of ATTP, for both unfamiliar and familiar brands, even when controlling for prior brand attitudes. Thorson (1991) concluded that despite prior brand

attitude, ad liking predicted consequent brand liking, albeit, the relationship between ATTA-ATTP was stronger for unfamiliar brands. If one's attitude about an ad is positive, this will result in positive beliefs about the product in the ad. So strong is this relationship, that each prior study found at least some causal relationship from ATTA to ATTP.

However, ATTA doesn't always predict ATTP, sometimes the paths of influence seem to work both ways, or in reverse. According to Mitchell and Olsen (1981), attitude toward the ad should be treated as a construct that is conceptually distinct from brand attribute beliefs and brand attitude, because the two constructs are inherently separate from one another. Wyllie (1997) found a reverse path of influence between ATTA and ATTP, where attitude toward the product predicted subsequent attitude toward the ad. It is possible that once someone becomes a drinker, they become more interested in and find alcohol advertising more appealing (Wyllie et al., 1998a). Wyllie (1997) found adolescents' responses to alcohol advertising were a consequence of the initial liking of alcohol products. Researchers found that students who were already frequent drinkers (established ATTP) rated alcohol advertising as more effective, identified better with their portrayals, 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. A college student's positive ATTA of alcohol ads has been linked to greater influence of the ads on the self (a first-person effect) as proven in past studies (David et al., 2004).

Will ATTP have similar outcomes? College students are expected to know that alcohol products are dangerous especially to their peers, yet most (more than 40%) engage in binge-drinking and thus probably have positive opinions of the product.

What will be the implications of these conflicting cognitions? What is the relationship between general attitude toward alcohol products (ATTP) and the perceived influence of alcohol advertising on self and others?

What can be expected to be found in the current study? What is the relationship between general attitude toward alcohol advertising (ATTA) and the perceived influence of alcohol advertising on self and other? This study seeks to determine what types of attitudes college students have toward drinking, alcohol advertising and alcohol products in general to clarify established opinions that may precede any first or third person effects from alcohol ads. The current study, exploratory in nature, seeks to discover the direct influence of ATTA and ATTP on college students' desire to restrict alcohol ads, as well as the indirect influence on ATTR mediated through self and other variables. The following research questions and hypotheses were created to specifically define the relationships and correlations sought from the study:

Research Questions and Hypotheses

RQ4. What is the relationship between general attitude toward alcohol advertising and the perceived influence of alcohol advertising on self and others?

H4-a: Perceived influence of alcohol advertising on self (SELF) will be positively related to attitude toward alcohol advertising (ATTA). (ATTA → SELF)

H4-b: Perceived influence of alcohol advertising on others (OTHERS) will be positively related to attitude toward alcohol advertising (ATTA). (ATTA → OTHERS)

RQ5. What is the relationship between general attitude toward (perception of) alcohol products and the perceived influence of alcohol advertising on self and others?

H5-a: Perceived influence of alcohol advertising on self (SELF) will be positively related to attitude toward alcohol products (ATTP). (ATTP → SELF)

H5-b: Perceived influence of alcohol advertising on others (OTHERS) will be positively related to attitude toward alcohol products (ATTP). (ATTP → OTHERS)

RQ6. What is the direct relationship between ATTA and ATTP on ATTR?

H6-a: There will be a negative relationship between ATTA and ATTR.

H6-b: There will be a negative relationship between ATTP and ATTR.

RQ7: What is the mediating role of SELF between the variables ATTA/ATTP with ATTR?

H7-a: The indirect relationship from ATTA to ATTR mediated through SELF, will be positive in both legs of the path (ATTA→SELF→ATTR).

H7-b: The indirect relationship from ATTP to ATTR mediated through SELF, will be positive in both legs of the path (ATTP→SELF→ATTR).

RQ8: What is the mediating role of OTHER between the variables ATTA/ATTP with ATTR?

H8-a: The indirect relationship from ATTA to ATTR mediated through OTHER, will be positive in both legs of the path (ATTA→OTHER→ATTR).

H8-b: The indirect relationship from ATTP to ATTR mediated through OTHER, will be positive in both legs of the path (ATTP→OTHER→ATTR).

Chapter Three

Research Design

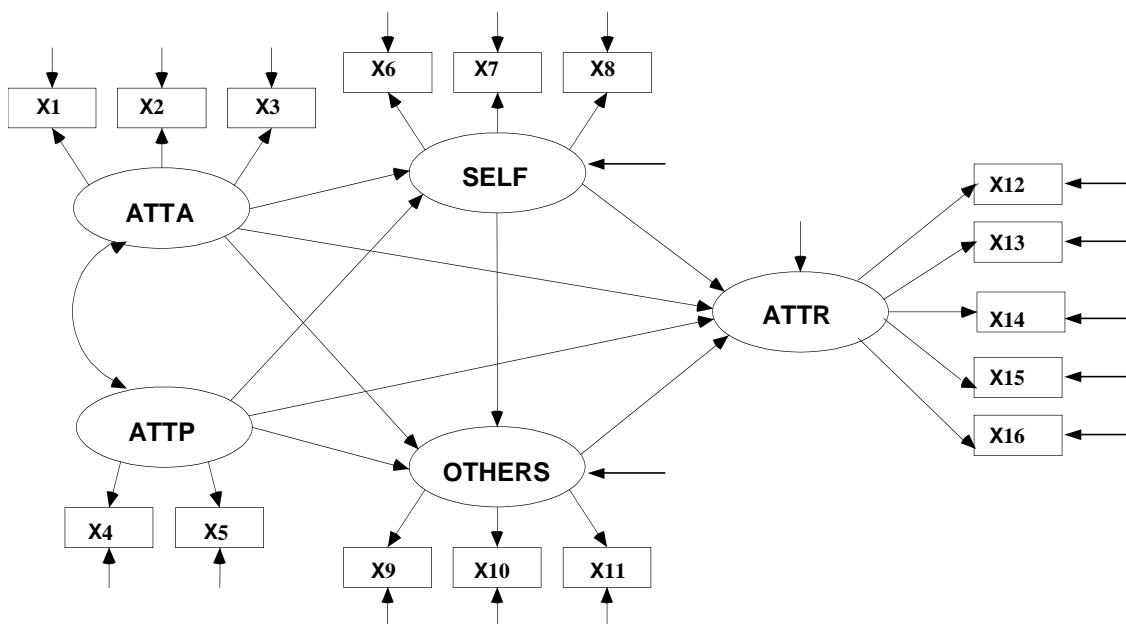


Figure 1. Structural Equation Model

The Structural Equation Model

Figure 1 summarizes the hypothesized theoretical relationships among the variables in a path diagram. Each proposed relationship is clearly sketched with arrows indicating the hypothesized directional connection. The boxes around each circled variable represent the question numbers on the questionnaire that identify the value

belonging to the variable. Questions were selected using a pre-tested questionnaire and represent valid measurements of each variable.

Hypothesized Paths

As the figure shows, attitude toward alcohol advertising (ATTA) and attitude toward alcohol products (ATTP) are two distinct but related attitudinal dimensions. Both of them have direct influence on attitude toward restrictions on alcohol advertising (ATTR). ATTA and ATTP also have indirect influence on ATTR via the perceived influence of alcohol advertising on oneself (SELF) and on other people (OTHERS). A direct transfer of effect from SELF to OTHERS is also recognized in the model.

The model thus hypothesizes that the perceived effect of alcohol advertising on oneself (first-person effect) and the perceived effect of alcohol advertising on others (third-person effect) act as mediators of the relationship between attitude toward alcohol advertising and attitude toward alcohol advertising restrictions. They also act as mediators of the relationship between attitude toward alcohol products and attitude toward alcohol advertising restrictions.

Consistent with the behavioral hypothesis of the third-person effect, the model predicts the significant influence of OTHERS on ATTR. For comparative purposes, the model also includes the causal link from SELF to ATTR. Since the third-person effect is more often used to justify support for media content restrictions than first-person effect, we would expect the OTHERS→ATTR path to be stronger than the SELF→ATTR path.

In agreement with the looking glass perception hypothesis, a direct path leading from SELF to OTHERS is hypothesized in the model. Finally, the model hypothesizes a correlation between ATTA and ATTP. The correlation between these two variables implies the possibilities of indirect influence of ATTA on other variables via ATTP, and vice versa.

Research Methodology

Selection of Sample

The sample consisted of 488 undergraduate and graduate students (201 males and 367 females) enrolled in a large southern university. Their mean age was 21.93 (SD = 3.13), with 31 percent age 20 or younger. Although 13% of the respondents claimed that they never drank, the majority (87.1%) of the sample said that they drank alcoholic beverages at least occasionally, and about 24% admitted that they drank often. Nearly 57% indicated that they had one to four drinks during the most recent social drinking occasion. The majority of underage (less than 21-years-old) respondents reported that they not only drink alcohol, but drink often.

Survey Instrument

The survey questionnaire was pre-tested on an undergraduate research methods class in the summer 2005 semester. The students were also asked to pre-test the draft questionnaire on other fellow students. Revisions were made by the primary researchers and the finalized questionnaire was developed using feedback from interviewers.

The questionnaire used consisted of 25 Likert-scaled responses to questions about attitudes and thoughts concerning alcohol advertising, alcohol consumption, college student drinking patterns, alcohol advertising restrictions, and to whom the sample agreed that alcohol advertising would be most appropriate. Also included in the

questionnaire were scaled answers to questions about the respondent's current drinking behaviors, student status, age and gender.

Data Gathering

Trained interviewers took two weeks to personally interview the respondents during August, 2005. Each interview took an average of 15 minutes to complete. These interviewers represented the expected demographic of the actual sample and were so chosen to lessen the chance of exaggerated or false responses given for some of the sensitive questions [such as established drinking behavior] that underage drinkers may not want to share with an older adult interviewer. Training consisted of learning exact dialogue to be stated during the interview, as well as an approach to overcoming objections, and an overall plan for completing the questionnaire. All respondents were told that their participation was strictly voluntary, and that their response to the survey would remain confidential. No names or personal identifying information was gathered, therefore, answers were also completely anonymous.

Measures

The following list includes the key measures contained in the survey. All questions were developed as a result of performing two separate pretests on students and tailoring the final questions to minimize confusion and the subjects' need to ask questions of the interviewer. These pre-tests were conducted weeks before the actual questionnaire was implemented.

Attitude Toward Alcohol Advertising (ATTA).

Three Likert-scaled (5: Strongly disagree, 1: strongly disagree) items were used to measure the construct: “I like advertising for alcoholic beverages,” “I don’t have a problem with advertising for alcoholic beverages,” and “I identify with the characters and situations portrayed in those ads.” The Cronbach’s alpha for ATTA was .84, indicating satisfactory inter-item reliability.

Attitude Toward Alcohol Products (ATTP).

This measure was based on two questions asking: “I don’t like liquor, beer or wine products,” and “I have a favorable opinion of most alcoholic beverages,” on 5-point Likert scales. The Cronbach’s alpha was .67 for the measure.

Perceived Influence of Alcohol Advertising on Oneself (SELF).

Using a 4-point scale (4: A great deal of influence, 1: No influence at all), respondents were asked to indicate the extent to which alcohol advertising had an influence on their “purchase of alcohol products,” “consumption of alcohol products,” and “attitude toward alcohol products.” The Cronbach’s alpha was .87.

Perceived Influence of Alcohol Advertising on Others (OTHERS).

Respondents were asked to indicate the extent to which alcohol advertising had an influence on other students’ “purchase of alcohol products,” “consumption of alcohol products,” and “attitude toward alcohol products.” Cronbach’s alpha for this measure was .88

Attitude Toward Restriction on Alcohol Advertising (ATTR).

Respondents' attitude toward alcohol advertising restrictions was measured by five Likert-scaled items: "Alcohol companies shouldn't advertise to college students," "People under the age of 21 shouldn't be exposed to alcohol advertising," "There ought to be more restrictions on alcohol advertising," "I support the idea of banning alcohol ads from some media forms," "I support the idea of banning alcohol ads from all forms of media." The Cronbach's alpha for the five-item measure was .87.

Chapter Four

Results

Structural Model Results

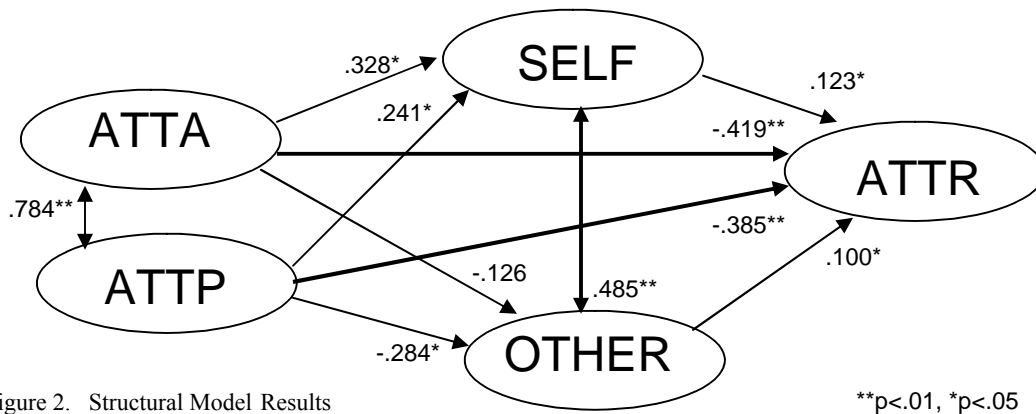


Figure 2. Structural Model Results

Figure 2 is a pictorial display of the descriptive results in the structural model diagram. In this model, every represented path was proven to be valid and significant, with the exception of the path between ATTA and OTHERS. In the following pages and sections, each relationship and each section of the diagram will be examined and the findings will be discussed.

Descriptive Results

Table 1 on the following page presents the means and standard deviations of all independent and dependent variables examined in this study.

Table 1. Descriptive Statistics

Variables	Mean	SD	Cronbach's Alpha
Attitude Toward Alcohol Advertising (ATTA) ^a	3.32	.95	.84
Like alcohol advertising	3.18	1.14	
Have no problem with alcohol advertising	3.72	1.11	
Identify with characters and situations in alcohol advertising	3.07	1.01	
Attitude Toward Alcohol Products (ATTP) ^a	3.55	1.07	.67
Like liquor, beer or wine	3.24	1.19	
Favorable opinion of alcoholic beverages	3.86	1.27	
Perceived Influence of Alcohol Advertising on Self (SELF) ^b	2.02	.83	.87
Influence on purchase of alcohol products	2.04	.92	
Influence on consumption of alcohol products	1.93	.90	
Influence on attitude toward alcohol products	2.10	.95	
Perceived Influence of Alcohol Advertising on Others (OTHER) ^b	2.94	.66	.88
Influence on purchase of alcohol products	2.93	.69	
Influence on consumption of alcohol products	2.91	.76	
Influence on attitude toward alcohol products	2.98	.76	
Attitude Toward Restrictions of Alcohol Advertising (ATTR) ^a	2.78	.91	.87
More restrictions on alcohol advertising	2.70	1.06	
Shouldn't advertise to college students	3.13	1.15	
Shouldn't advertise to people under 21	3.00	1.14	
Banning alcohol advertising from some media	2.93	1.22	
Banning alcohol advertising from all media	2.14	1.06	

^a Items measured by 5-point Likert Scale (5: Strongly agree, 1: Strongly disagree)

^b Items measured by 4-point Scale (4: A great deal of influence, 1: No influence at all)

Consistent with prior research, participants in the present study exhibited, on the average, a favorable attitude toward alcohol advertising in general (Mean ATTA = 3.32, SD = .95) as well as a favorable attitude toward alcohol products (Mean ATTP = 3.55, SD = 1.07). T-test results indicate both means are significantly different from the neutral point of 3 on the scale ($t_{ATTA} = 7.50$, $df = 487$, $p < .001$; $t_{ATTP} = 11.45$, $df = 487$, $p < .001$). On the other hand, respondents' attitude toward restrictions on alcohol advertising was less than favorable (Mean ATTR = 2.78, SD = .91, $t_{ATTR} = 18.90$, $df = 487$, $p < .001$).

Also shown in Table 1 are measures of respondents' perceived influence of alcohol advertising on themselves and on other college students. A comparison between the two shows clear support to the third-person hypothesis: Respondents

tended to perceive greater influence of alcohol advertising on other college students (Mean OTHER = 2.94, SD = .66) than on themselves (Mean SELF = 2.02, SD = .83) ($t = -22.14$, $df = 422$, $p < .001$). Additional paired t-tests show significant self-other differences for product purchase ($t = -19.34$, $df = 425$, $p < .001$), product consumption ($t = -21.62$, $df = 427$, $p < .001$), and attitude toward products ($t = -17.70$, $df = 428$, $p < .001$).

Model Fitting and Tests of Hypotheses

The hypothesized relationships depicted in Figure 1 were examined through structural equation modeling (SEM) analysis with AMOS, which estimates parameters reflecting the proposed causal relations among constructs and the relationships between constructs and their indicators.

Table 2. Measurement Model Results

Latent Constructs & Indicators	Standardized Factor Loading	Standard Error
Attitude Toward Alcohol Advertising (ATTA)		
Like alcohol advertising (X1)	.857**	----
Have no problem with alcohol advertising (X2)	.833**	.084
Identify with characters and situations in alcohol advertising (X3)	.704**	.094
Attitude Toward Alcohol Products (ATTP)		
Like liquor, beer or wine (X4)	.693**	----
Favorable opinion of alcoholic beverages (X5)	.717**	.078
Perceived Influence of Alcohol Advertising on Self (SELF)		
Influence on purchase of alcohol products (X6)	.866**	----
Influence on consumption of alcohol products (X7)	.862**	.044
Influence on attitude toward alcohol products (X8)	.773**	.047
Perceived Influence of Alcohol Advertising on OTHERS (OTHER)		
Influence on purchase of alcohol products (X9)	.877**	----
Influence on consumption of alcohol products (X10)	.875**	.051
Influence on attitude toward alcohol products (X11)	.788**	.056
Attitude Toward Restrictions on Alcohol Advertising (ATTR)		
More restrictions on alcohol advertising (X12)	.790**	----
Shouldn't advertise to college students (X13)	.775**	.085
Shouldn't advertise to people under 21 (X14)	.583*	.081
Banning alcohol advertising from some media (X15)	.716**	.094
Banning alcohol advertising from all media (X16)	.793**	.075

** $p < .01$, * $p < .05$

Measurement Model Evaluation

Standardized factor loadings and their standard errors for construct indicators are presented in Table 2. The indicator loadings for all constructs are generally high and statistically significant at the .05 level. Also, the standard errors are generally small, demonstrating acceptable validity of the measurement model.

Structural Model Results Analysis

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 ($X^2 = 208.09$, $df = 81$, $p = .000$), it should be noted that the Chi-square test is sensitive to large sample sizes, like the one employed in the present study. Our 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 = .952; AGFI = .918; CFI = .969, TLI = .954, RMSEA = .057) indicate that the model provides acceptable fit to the data.

Table 3. Structural Model Results

Path	Standardized Path Coefficient	Standard Error	Critical Ratio
ATTA → SELF	.328**	.113	3.080
ATTA → OTHERS	-.126	.086	-1.122
ATTA → ATTR	-.419**	.104	-4.144
ATTP → SELF	.241*	.104	2.117
ATTP → OTHERS	-.284*	.082	-2.288
ATTP → ATTR	-.385**	.101	-3.377
SELF → ATTR	.123*	.058	2.066
OTHERS → ATTR	.100*	.065	2.063
SELF → OTHERS	.485**	.047	7.510
ATTA ↔ ATTP	.784**	.058	8.876

$X^2 = 208.09$, $df = 81$, $p = .000$; $GFI = .952$; $AGFI = .918$; $NFI = .951$; $CFI = .969$; $RMSEA = .057$

** $p < .01$, * $p < .05$

Table 3 shows the estimates of structural model parameters. With the only exception of the link from ATTA to OTHERS, all other causal paths hypothesized between the latent constructs are statistically significant at the .05 level. These include the direct causal link between ATTA and ATTR (path = $-.419$, $p < .01$), and the indirect path from ATTA to ATTR via SELF (ATTA→SELF = $.328$, $p < .01$; SELF→ATTR = $.123$, $p < .05$). Thus, hypotheses 6a and 7a were supported; and hypothesis 8a was nullified, indicating a stronger first-person effect from ATTA.

Similar to ATTA, ATTP also had a direct negative influence on ATTR ($-.385$, $p < .01$). Unlike that of ATTA, the influence of ATTP on ATTR was mediated by both SELF (ATTP→SELF = $.241$, $p < .05$; SELF→ATTR = $.123$, $p < .05$) and OTHERS (ATTP→OTHERS = $-.284$, $p < .05$; OTHERS→ATTR = $.100$, $p < .05$). This supports hypotheses 6-b, 7-b and 8-b, and implies that third-person effect is greater when ATTP is isolated.

Consistent with the behavioral hypothesis of the third-person effect, there was a weak but significant path leading from OTHERS to ATTR (path=.100, $p < .05$). That is, the greater the perceived influence of alcohol advertising on others, the more one would support restrictions on alcohol advertising. Somewhat surprisingly, such behavioral consequence was also observed between SELF and ATTR (path=.123, $p < .05$): The greater the perceived influence of alcohol advertising on oneself, the more one would support restrictions on alcohol advertising. This finding is not consistent with any previous third person effects research and represents an important discovery in first-person effects. These figures support hypotheses 2-a and 2-b.

To determine if the strength of the path from SELF to ATTR is significantly greater than the path from OTHERS to ATTR, we imposed equality constraints to the two paths. Results show that treating these two paths as equal did not significantly worsen the fit (the difference in X^2 between the model with and without the equality constraints is .08; with one degree of freedom this does not come remotely close to statistical significance). Thus, we may conclude the perceived influence on self and others exert equal amount of influence on one's attitude toward alcohol advertising restrictions. This nullifies hypothesis 3.

As predicted, both paths leading from ATTA and ATTP to SELF were positive (.328 and .241, respectively), while the paths leading from ATTA and ATTP to OTHERS were negative (-.126 and -.284, respectively). In other words, the favorable ATTA and ATTP constituted the source of positive influence of alcohol advertising on oneself, but the source of negative influence on others, supporting theories of both a

first- and third-person effect. These results support hypotheses 4-a and 5-a, but nullify hypotheses 4-b and 5-b.

The significant and positive path (.485, $p < .01$) between SELF and OTHERS lends strong support to the looking glass perception hypothesis. That is, students who participated in this study used the perceived influence of alcohol advertising on themselves as the basis for their assessment of the influence of alcohol advertising on other students. The stronger the perceived influence on oneself, the stronger perceived influence on others. Hypothesis 1 is supported.

Table 4. Estimates of Indirect, Direct, and Total Effects*

	Total Indirect Effect	Total Direct Effect	Total Causal Effect
ATTA → ATTR	-.249	-.419	-.668
ATTP → ATTR	-.280	-.385	-.665
ATTA → SELF	.189	.328	.517
ATTP → SELF	.257	.241	.498
ATTA → OTHERS	.251	-.126	.125
ATTP → OTHERS	.143	-.284	-.141
SELF → ATTR	.049	.123	.172
OTHERS → ATTR	----	.100	.100
SELF → OTHER	----	.485	.485

* Considering the path ATTA→ATTR, the *indirect effects* are calculated by multiplying the path coefficients for each path from ATTA to ATTR, thus:

ATTA→SELF→ATTR is $.328 * .123 = .040$
 ATTA→SELF→OTHERS→ATTR is $.328 * .485 * .100 = .016$
 ATTA→OTHERS→ATTR is $-.126 * .100 = -.013$
 ATTA→ATTP→SELF→ATTR is $.784 * .241 * .123 = .023$
 ATTA→ATTP→SELF→OTHERS→ATTR is $.784 * .241 * .485 * .100 = .009$
 ATTA→ATTP→OTHERS→ATTR is $.784 * -.284 * .100 = -.022$
 ATTA→ATTP→ATTR is $.784 * -.385 = -.302$
 Total indirect effect ATTA→ATTR = $.040 + .016 - .013 + .023 + .009 - .022 - .302 = -.249$
 Total direct effect ATTA→ATTR = $-.419$
 Total causal effect = $(-.249) + (-.419) = -.668$

Table 4 presents the estimates of the indirect, direct and total effects. ATTA and ATTP showed the strongest total effects on ATTR (-.668 and -.665 respectively). ATTA and ATTP also had strong positive effects on SELF (.517 and .498, respectively), suggesting that as the liking for alcohol advertising and products increase, so will the perceived influence of alcohol advertising on oneself. In comparison, the influence of ATTA and ATTP on OTHERS appeared to be much weaker (.125 and -

.141 respectively). The total effect of SELF on ATTR (.172) was also greater than the effect of OTHERS on ATTR (.100). Together, these results seem to suggest that the perceived influence of alcohol advertising on oneself (i.e., the first-person effect) is more powerful than the perceived influence of alcohol advertising on others (i.e., the third-person effect). It should be noted, however, that the influence of SELF on ATTR consisted of the direct effect from SELF to ATTR (.123) and the indirect effect via OTHERS (.049).

In-Depth Key Path Analysis

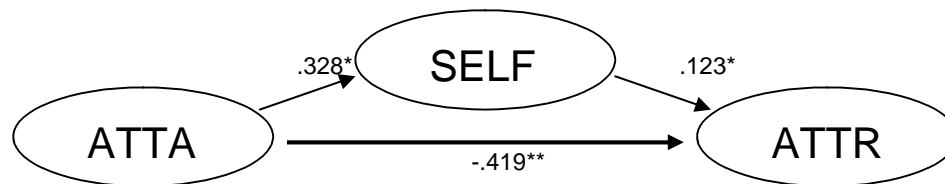


Figure 3. Portion A of Path Diagram

Figure 3 focuses on the paths between ATTA, SELF, and ATTR. Each path in this figure was validated and represents a significant relationship between variables. That is, ATTA not only has a direct and significant inverse relationship with ATTR, but also the path between ATTA and ATTR mediated through the SELF was a significant and valid path as well. In other words, as a person's attitude about an advertisement becomes more favorable, their support for limiting those ads becomes very unlikely – as to be expected. However, when the same individual reflects upon the potential effects of alcohol advertising on themselves and their attitudes and behaviors, they do indeed agree that restricting such ads is a good idea, even though they may still have favorable

opinions of said ads. This particular relationship represents an interesting finding in that one's opinion on censorship can be manipulated. The respondents in this study, start out with attitudes against censorship in the simple case of treating ATTA as an isolated factor in determining ATTR. After factoring in the effects of the ads on SELF. the sample begins to favor restrictions for advertising, and exhibit a first-person effect.

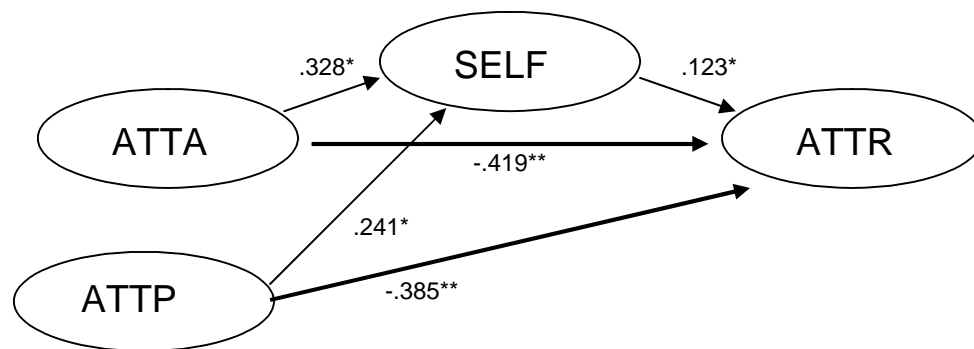


Figure 4. Portion B of Path Diagram

Figure 4 adds the variable ATTP to the previous figure for an overall evaluation of the effects on SELF. We can see from this diagram that again, the direct inverse relationship between ATTP and ATTR is very strong. The outcome is expected and shows a favorable opinion about alcohol products makes it less likely the respondent will have attitudes supportive of censorship. Attitudes toward the product also showed significant signs of a positive relationship to perceived effects of alcohol advertising on SELF. In other words, there exists a causal link in the perception of advertising effects on SELF when established product attitudes exist. Although the relationship discovered between SELF and ATTP was not as strong as the relationship between ATTA and SELF, there is still a causal link.

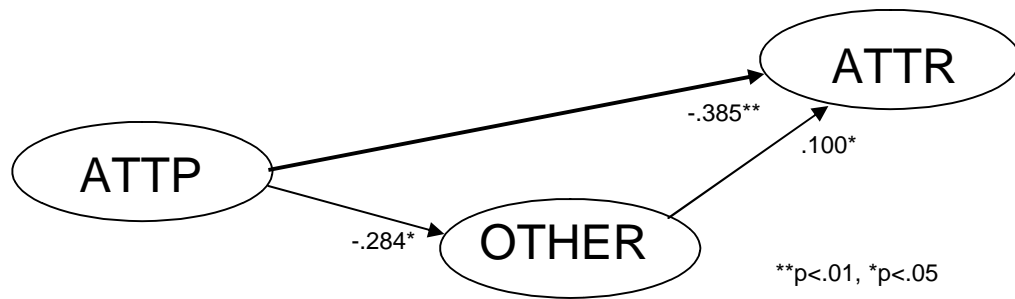


Figure 5. Portion C of Path Diagram

Figure 5 focuses on the paths between ATTP, OTHERS, and ATTR. Each path in this figure was validated and represents a significant relationship between variables. That is, ATTP not only has a direct and significant inverse relationship with ATTR, but also the path between ATTP and ATTR mediated through the OTHERS was a significant and valid path as well. In other words, as the respondents' attitude of alcohol products become more favorable, their attitude toward restricting alcohol advertising became less favorable. This was an expected result and follows the logic that if you like products, you don't want their messages restricted. Also important is the favorable attitudes toward restricting such ads when ATTP is mediated through OTHERS – proving a third-person effect. even though they enjoy the products, the respondents favored restricting ads that they perceived influenced OTHERS, shifting attitudes about restrictions toward the positive.

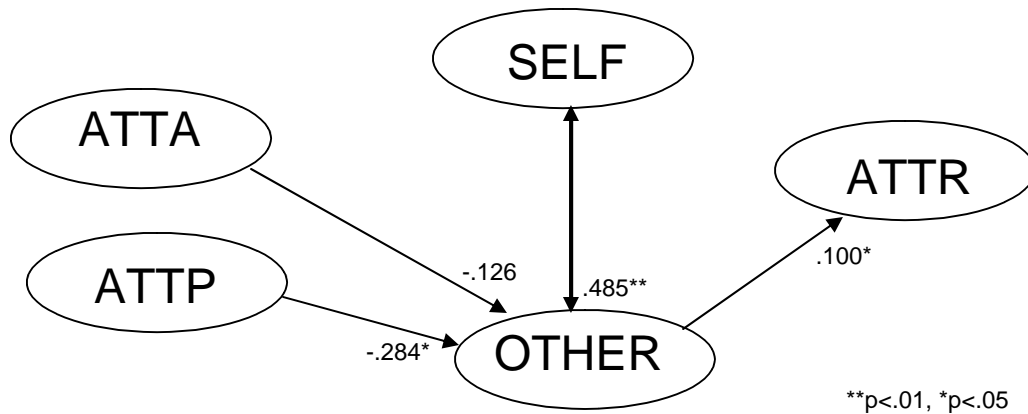


Figure 6. Portion D of Path Diagram

Figure 6 takes a closer look at the respondent's perception of effects on OTHERS. Several factors have bearing on what the sample believes effects OTHERS. One factor is the perceived effects on SELF. Consistent with the looking-glass theory, in this model, the SELF-OTHERS relationship is very real and significant, meaning that what we believe to be true with our selves, we also believe to be true with others. We see our perceptions and beliefs to be consistent with the opinions and beliefs of those around us. However, note from earlier results discussion that respondents believed OTHERS to be more effected by alcohol advertising than SELF; thus, the looking-glass perception findings strengthen the third-person effect in this study to an even greater degree by separating the effects on SELF from the effects on OTHERS when comparison opinions and beliefs seem to be equivalent. Figure 6 also highlights the very important finding that the respondents' ATTA has no effect or relationship with perceived influence from the alcohol ads on OTHERS. In other words, the respondents opinion of the ads had no effect on the perceived effects of the ads on other people. This finding is extremely important in third-person effects research because previous

findings have found favorable opinions of media content to lead to a first-person effect (happening here when ATTA has greater perceived effects on SELF than OTHERS).

Chapter 5

Discussion and Recommendations

Discussion

The question of most importance to the researchers was: What will happen, a first- or third-person effect? It seems in this case that both events took place simultaneously. Overall, the third-person effect's strength was greater than that of the first-person effect in most instances except when considering ATTA. Only the first-person effect took place in relation to one's attitude toward the ad (and the sample had very positive attitudes toward alcohol ads). At the same time, there was also a significant third-person effect happening within the structural model which may be due to the nature of the product examined, alcohol. People recognized effects on self from the enjoyable ads and products, yet still wanted to protect those others that they felt were influenced a great deal by advertising to drink or buy alcohol. Considering the influence perceived on self and others, some forms of restrictions were supported by the sample. These include restricting ads aimed at college students and protecting those under 21 from exposure to alcohol ads. Outright bans or complete censorship were not supported.

Results of the present study showed that the perceived influence of alcohol advertising on self and others mediated the effects of attitude toward alcohol advertising and attitude toward alcohol products on college students' views of restrictions of alcohol advertising. Unlike previous studies that often investigated the effects of alcohol

advertising in a social vacuum, this study provides some initial evidence that alcohol advertising works, to a significant extent, by affecting how we think about others. Indeed, a more complex picture emerges when others are involved. Experimental research often assumes the direct influence of advertising on the individual; studies which took into account of the social context often find advertising to have both direct and indirect effects.

Implications

The present study also suggests that effective interventions to reduce alcohol abuse may require simultaneously addressing the two faces of alcohol 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) strengthen and channel the negative consequences of alcohol abuse on significant others, while at the same time (2) reduce the positive feelings and emotions induced by alcohol advertising. In agreement with the emphasis on the third person, the general strategy of strengthening social norms against undesirable behavior has proven effective in relation to drinking-driving behavior.

Recommendations

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 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.

The findings presented here can be used by many organizations or government agencies, including consumer-protection groups, legislative bodies, and private and public industries that market alcohol beverages.

1. For Consumer Protection Groups: This study reveals important elements of communication that can be used to counter the effects of likeable alcohol advertising an underage audience. These elements include: employing images or text to enlighten college students of the tactics used to sway their minds favorably toward the product, or using a call-to-action in messages asking the audience to participate in self-reflection after experiencing ads for alcohol products. The self-reflection should be to decide what effects, if any, had happened during the advertisement. Employing such elements would be most beneficial for counter-advertising, responsibility marketing or public service announcements. Each of these three categories of advertising spends far less money on advertising and marketing each year in the U.S., than do alcohol companies, but as this study proves, limited exposure (asking the students to self-reflect once) can still be effective, just one exposure to such an ad may be enough for most individuals, especially college students, to turn to self-reflection and question the effects of said ads. As stated in the beginning of this study, if enough of the college student population forms a boycott of the products that target underage drinkers, these practices will

change out of necessity. The college student market can be the most powerful voice for change in these practices as they represent the most important consumer market in this industry. More research should be done to discover to the lengths through which college students would go to enforce tighter marketing control policies.

2. For Governmental Groups or Legislative Bodies: This study provides evidence that some alcohol beverage companies are negligent in not only their advertising placement, but also in their methods employed to market their goods. Using image ads and always setting the scene for fun, friends and attracting the opposite sex, alcohol companies are less than responsible marketers of the benefits, uses or dangers of their products. These methods have been proven to be appealing to younger audiences which is why in previous studies the youth audience said that they “couldn’t wait to drink” so that they too could have as much fun as the actors in the ads. Even in the midst of strict industry guidelines, several companies and brands have been found to consistently violate the marketing codes knowing that once it’s in print, it is out there for all to see. There is certainly enough evidence to warrant further and severe restrictions on the marketing practices in this industry, and to enact harsher fines for those companies that continuously violate the marketing codes.

3. For Alcohol Beverage Companies: The companies could also use the findings in this report to continue their successful marketing practices to the college student population. Knowledge can also be had from this study on how to avoid potential restrictions on advertising practices by continuing to push in the direction of the adolescent consumer’s preferences, and touting the merits of free speech. As we discovered in this study, college students are very much against restricting this form of

communication, until they realize what effects the ads have on themselves and their peers. Most students probably don't realize the effects of the ads on themselves and their peers unless asked to think about it. Probably the most important piece of information for alcohol beverage manufacturers to learn from this study is that there is a great need for accountable marketing practices that mix the idea of fun while keeping the underlying message of responsible drinking alive in all ads.

Limitations

Although the structural equation modeling (SEM) approach could be rather effectively used to examine the relationships among multiple variables simultaneously, as illustrated by the present study, it should be noted that ultimately the SEM analysis deals with correlation, not causation of variables (Everitt and Dunn 1991). The arrows in structural models do indeed reflect hypotheses about causation. However, many models may be consistent with a given dataset. SEM analysis merely illuminates the extent to which a particular model, derived from theory, is consistent with the pattern of correlations found in the data. The competing theories may be represented in separate path models with separate path analyses, or may be combined in a single path diagram, in which case the researcher is concerned with comparing the relative importance of different paths within the diagram. Future research should thus attempt to test alternative models to better determine the validity of alternative theoretical explanations and predictions.

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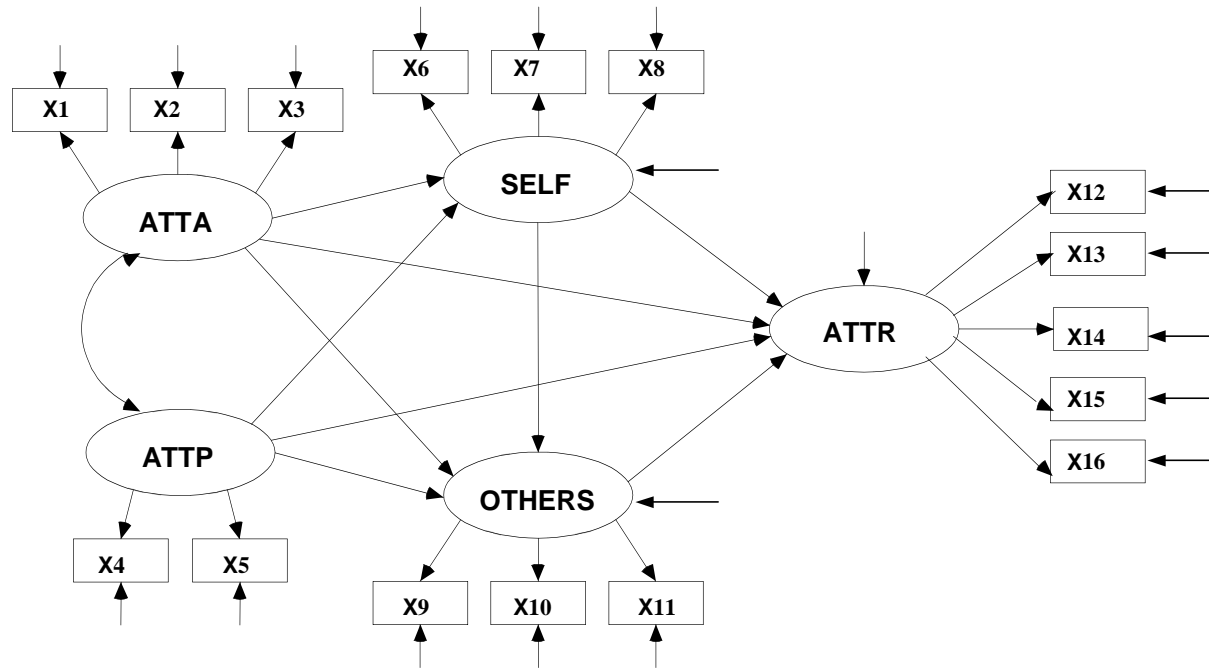
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Appendices

Appendix A

Expanded Path Diagram

Figure 1. Path Diagram of Hypothesized Relationships



ATTA: Attitude toward Alcohol Advertising, ATP: Attitude toward Alcoholic Beverage Products
SELF: Perceived Influence of Alcohol Advertising on Self
OTHERS: Perceived Influence of Alcohol Advertising on Others
ATTR: Attitude toward Restrictions of Alcohol Advertising

Appendix B

Survey Questionnaire

We're conducting a study of students' perception of advertising. Would you mind helping us by answering a few questions?
 If "REFUSED" ---- "Thank you for your time." If "YES" ---- "Great!" ---- Go to the first question.

Let me begin by asking how you feel about some statements regarding alcohol advertising, including ads for beer, wine, wine coolers, liquor, and mixed drinks. Please tell us whether you **Strongly Agree**, **Agree**, **Neither Agree nor Disagree**, **Disagree**, or **Strongly Disagree** with each statement.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neither Agree nor Disagree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>D/K</u>
1. I don't have a problem with alcohol advertising	5	4	3	2	1	9
2. I like alcohol advertising	5	4	3	2	1	9
3. I identify with the characters and situations portrayed in alcohol advertising	5	4	3	2	1	9
4. Alcohol advertising increases my desire to use the product	5	4	3	2	1	9
5. Alcohol advertising makes drinking fun	5	4	3	2	1	9
6. I have a favorable opinion of most alcoholic beverages	5	4	3	2	1	9
7. I don't like liquor, beer or wine products	5	4	3	2	1	9
8. I am concerned about alcohol advertising directed at college students	5	4	3	2	1	9
9. I think alcohol consumption is a serious issue for college students	5	4	3	2	1	9
10. Some college students don't know how much drinking is too much	5	4	3	2	1	9
11. Alcohol consumption can lead to dangerous outcomes	5	4	3	2	1	9

We'd like to know the extent to which alcohol advertising has an influence on you personally. Do you think alcohol advertising has **a great deal of influence**, **some influence**, **very little influence**, or **no influence at all**:

	<u>A great deal of influence</u>	<u>Some influence</u>	<u>Very little influence</u>	<u>No influence at all</u>	<u>D/K</u>
12. On your purchase of alcohol products	4	3	2	1	9
13. On your consumption of alcohol products	4	3	2	1	9
14. On your attitude toward alcohol products	4	3	2	1	9

Now we'd like to ask you the extent to which alcohol advertising may influence other people. Let's look at USF students first. Do you think alcohol advertising has **a great deal of influence**, **some influence**, **very little influence**, or **no influence at all**:

	<u>A great deal of influence</u>	<u>Some influence</u>	<u>Very little influence</u>	<u>No influence at all</u>	<u>D/K</u>
15. On USF students' purchase of alcohol products	4	3	2	1	9
16. On USF students' consumption of alcohol products	4	3	2	1	9
17. On USF students' attitude toward alcohol products	4	3	2	1	9

Appendix B (Continued)

Survey Questionnaire

Now we'd like you to think of students at other universities in Florida. Do you think alcohol advertising has a great deal of influence, some influence, very little influence, or no influence at all:

	<u>A great deal of influence</u>	<u>Some influence</u>	<u>Very little influence</u>	<u>No influence at all</u>	<u>D/K</u>
18. On the purchase of alcohol products by students at other universities	4	3	2	1	9
19. On the consumption of alcohol products by students at other universities	4	3	2	1	9
20. On their attitude toward alcohol products	4	3	2	1	9

Please tell us whether you: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, or Strongly Disagree with the following statements:"

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Neither Agree nor Disagree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>D/K</u>
21. Alcohol companies shouldn't advertise to college students	5	4	3	2	1	9
22. People under the age of 21 shouldn't be exposed to alcohol advertising	5	4	3	2	1	9
23. There ought to be more restrictions on alcohol advertising	5	4	3	2	1	9
24. I support the idea of banning alcohol ads from <u>some media</u> forms	5	4	3	2	1	9
25. I support the idea of banning alcohol ads from <u>all forms of media</u>	5	4	3	2	1	9

Finally, we'd like to ask a few more questions about you. These are for research purposes only and all information will be kept strictly confidential.

26. How often do you drink liquor, wine or beer? Do you often, sometimes, rarely, or never drink?

[4] often [3] sometimes [2] rarely [1] never (if "never," go to Q 28)

27. Think about your last social drinking occasion, how many drinks did you consume on that occasion?

[1] 0 [2] 1 to 2 [3] 3 to 4 [4] 5 to 6 [5] 7 to 8 [6] 9 to 10 [7] 11 or more

28. Are you presently a freshman, sophomore, junior, senior, or graduate student at USF?

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

29. What is your age, please? _____ (record in years)

30. Gender of respondent: (1) Male (2) Female (circle answer)

Okay, this completes our survey, Thank you very much for your patience and help. Have a great day.

Appendix C

Survey Questions and Variables

1. Attitude Toward Alcohol Advertising (ATTA)

Q1: I don't have a problem with alcohol advertising (PRO B)

Q2: I like alcohol advertising (LIKEA)

Q3: I identify with the characters and situations portrayed in alcohol advertising (IDENT) Q4: Alcohol advertising increases my desire to use the product (DESIRE)

Q5: Alcohol advertising makes drinking fun (FUN)

2. Attitude Toward Alcoholic Beverage Products (ATTP)

Q6: I have a favorable opinion of most alcoholic beverages

(FAVOR) Q7: I don't like liquor, beer or wine products (Reverse Coded) (LIKEP)

3. Drinking Problem Perception (DPP)

Q8: I am concerned about alcohol advertising directed at college students (CONCERN) Q9: I think alcohol consumption is a serious issue for college students (SERIOUS) Q10: Some college students don't know how much drinking

is too much (TOOMUCH) Q11: Alcohol consumption can lead to dangerous outcomes (DANGER)

4. Effect of Alcohol Advertising on Self

(SELF) Q12: On your purchase of alcohol products (SBUY) Q13: On your consumption of alcohol products (SUSE) Q14: On your attitude toward alcohol products (SATT)

5. Effect of Alcohol Advertising on Other USF Students

(OUSF) Q15: On USF students' purchase of alcohol products (USFBUY) Q16: On USF students' consumption of alcohol products (USFUSE) Q17: On USF students' attitude toward alcohol products (USFATT)

6. Effect of Alcohol Advertising on Other College Students (OCOLL)

Q18: On the purchase of alcohol products by students at other universities (OBUY) Q19: On the consumption of alcohol products by students at other universities (OUSE) Q20: On their attitude toward alcohol products (OATT)

Appendix C (Continued)

Survey Questions and Variables

7. Restrictions (ATTR) or Ban on Alcohol Advertising (BAN)

Q21: Alcohol companies shouldn't advertise to college students (NOADV)

Q22: People under the age of 21 shouldn't be exposed to alcohol advertising (UNDER) Q23: There ought to be more restrictions on alcohol advertising (RESTRICT)

Q24: I support the idea of banning alcohol ads from some media forms (BANSOME) Q25: I support the idea of banning alcohol ads from all forms of media (BANALL)

8. Frequency of Alcohol Consumption (FREQ)

Q26: How often do you drink liquor, wine or beer? Do you often, sometimes,

rarely, or never drink? (FREQ)

9. No. of Drinks Last Occasion (DRINKS)

Q27: Think about your last social drinking occasion, how many drinks did you

consume on that occasion? (DRINKS)

10. Student Status (STATUS)

Q28: Are you presently a freshman, sophQ!!!Q@, iunior, senior, or graduate

student at USF? (STATUS)

11. Age (AGE)

Q29: What is your age, please? (AGE)

12. Gender (GENDER)

Q30: Gender of respondent (GENDER)

Appendix D

List of Research Questions and Hypotheses

RQ1: What is the relationship between perceived influence of alcohol advertising on self (SELF) and on others (OTHERS)?

H1: Perceived influence of alcohol advertising on self will be positively related to perceived influence on others. (SELF → OTHERS; OTHERS → SELF)

RQ2: What is the relationship between perceived influence of alcohol advertising (on SELF and OTHERS) and attitude toward greater restrictions on alcohol advertising (ATTR)?

H2-a: There will be a positive relationship between SELF and ATTR. (SELF → ATTR)

H2-b: There will be a positive relationship between OTHERS and ATTR. (OTHERS → ATTR)

RQ3: What is the relative influence of perceived effect of alcohol advertising on self (SELF) and others (OTHERS) on attitude toward restricting alcohol advertising (ATTR)?

H3: SELF → OTHERS ≠ OTHERS → ATTR

RQ4: What is the relationship between general attitude toward alcohol advertising and the perceived influence of alcohol advertising on self and others?

H4-a: Perceived influence of alcohol advertising on self (SELF) will be positively related to attitude toward alcohol advertising (ATTA). (ATTA → SELF)

H4-b: Perceived influence of alcohol advertising on others (OTHERS) will be positively related to attitude toward alcohol advertising (ATTA). (ATTA → OTHERS)

RQ5: What is the relationship between general attitude toward (perception of) alcohol products and the perceived influence of alcohol advertising on self and others?

H5-a: Perceived influence of alcohol advertising on self (SELF) will be positively related to attitude toward alcohol products (ATTP). (ATTP → SELF)

Appendix D (Continued)

List of Research Questions and Hypotheses

H5-b: Perceived influence of alcohol advertising on others (OTHERS) will be positively related to attitude toward alcohol products (ATTP). (ATTP → OTHERS)

RQ6. What is the relationship (direct and indirect) between ATTA and ATTP on ATTR?

H6-a: There will be a negative relationship between ATTA and ATTR.

H6-b: There will be a negative relationship between ATTP and ATTR.

RQ7: What is the mediating role of SELF between the variables ATTA/ATTP with ATTR?

H7-a: The indirect relationship from ATTA to ATTR mediated through SELF, will be positive in both legs of the path (ATTA → SELF → ATTR).

H7-b: The indirect relationship from ATTP to ATTR mediated through SELF, will be positive in both legs of the path (ATTP → SELF → ATTR).

RQ8: What is the mediating role of OTHER between the variables ATTA/ATTP with ATTR?

H8-a: The indirect relationship from ATTA to ATTR mediated through OTHER, will be positive in both legs of the path (ATTA → OTHER → ATTR).

H8-b: The indirect relationship from ATTP to ATTR mediated through OTHER, will be positive in both legs of the path (ATTP → OTHER → ATTR).

Appendix E
Frequency Distributions

Frequency Table: FREQ – Drinking Frequency					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	59	12.9	12.9	12.9
	Rarely	107	23.4	23.4	36.2
	Sometimes	183	40	40	76.2
	Often	109	23.8	23.8	100
	Total	458	100	100	

Frequency Table: Drinks per Occasion					
		Frequency	Percent	Valid Percent	Cumulative Percent
	0	67	14.6	14.7	14.7
Valid	1 to 2	140	30.6	30.7	45.4
	3 to 4	121	26.4	26.5	71.9
	5 to 6	54	11.8	11.8	83.8
	7 to 8	32	7	7	90.8
	9 to 10	12	2.6	2.6	93.4
	11 or more	30	6.6	6.6	100
	Total	456	99.6	100	
Missing	99	2	0.4		
Total	458	100			

Frequency Table: Student STATUS					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	31	6.8	6.8	6.8
	Sophomore	76	16.6	16.6	23.4
	Junior	128	27.9	27.9	51.3
	Senior	178	38.9	38.9	90.2
	Graduate	41	9.0	9.0	99.1
	Other	4	0.9	0.9	100.0
	Total	458	100.0	100.0	

Frequency Table: Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	188	41.0	41.3	41.3
	Female	267	58.3	58.7	100.0
	Total	455	99.3	100.0	
Missing	.99	3	0.7		
Total		458	100.0		

Appendix F
Descriptive Results

Descriptive: AGE Descriptive Statistics					
	N	Range	Minimum	Maximum	Mean
AGE	457	26	17	43	21.93

Descriptive: ATTA						
	N	Range	Min	Max	Mean	SD
PROB	456	4	1	5	3.7149	1.1261
LIKEA	454	4	1	5	3.152	1.1494
IDENT	453	4	1	5	2.5828	1.1426
DESIRE	453	4	1	5	2.4371	1.1205
FUN	452	4	1	5	2.5442	1.1858

Descriptive: ATTP						
	N	Range	Min	Max	Mean	SD
FAVOR	455	4	1	5	3.2484	1.1974
LIKEP	454	4	1	5	2.1498	1.2951

Descriptive: DPP						
	N	Range	Min	Max	Mean	SD
CONCERN	449	4	1	5	2.882	1.1695
SERIOUS	455	4	1	5	3.5956	1.1062
TOOMUCH	456	4	1	5	4.1645	0.8854
DANGER	458	4	1	5	4.321	0.847

Descriptive: SELF						
	N	Range	Min	Max	Mean	SD
SBUY	453	3	1	4	2.0221	0.9286
SUSE	453	3	1	4	1.8985	0.899
SATT	454	3	1	4	2.0969	0.9603

Appendix G

Correlations

Crltn: ATTA, ATTP, DPP, SELF, OUSF, OCOLL, BAN			
	Mean	Std. Deviation	N
ATTA	3.1079	0.9335	448
ATTP	3.551	1.0825	451
DPP	3.7388	0.7896	446
SELF	2.003	0.8341	451
OUSF	2.9415	0.6825	427
OCOLL	2.9681	0.6851	407
BAN	2.7761	0.9265	435

Correlations								
		ATTA	ATTP	DPP	SELF	OUSF	OCOLL	BAN
ATTA	Pearson Correlation	1						
	Sig. (2-tailed)							
ATTP	Pearson Correlation	0.625	1					
	Sig. (2-tailed)	0						
DPP	Pearson Correlation	-0.46	-0.405	1				
	Sig. (2-tailed)	0	0					
SELF	Pearson Correlation	0.559	0.375	-0.225	1			
	Sig. (2-tailed)	0	0	0	0			
OUSF	Pearson Correlation	0.002	-0.081	0.252	0.366	1		
	Sig. (2-tailed)	0.962	0.097	0	0			
OCOLL	Pearson Correlation	-0.065	-0.142	0.271	0.241	0.787	1	
	Sig. (2-tailed)	0.194	0.004	0	0	0		
BAN	Pearson Correlation	-0.562	-0.508	0.56	-0.229	0.187	0.223	1
	Sig. (2-tailed)	0	0	0	0	0	0	

Appendix H

Paired Sample Statistics

T-Tests: SELF vs. OTHER USF STUDENTS				
Pair Samples Statistics				
		Mean	N	Std. Deviation
Pair 1	SBUY	2.028	426	0.9301
	USFBUY	2.941	426	0.7121
Pair 2	SUSE	1.909	428	0.8968
	USFUSE	2.911	428	0.7631
Pair 3	SATT	2.110	429	0.9544
	USFATT	2.960	429	0.7739
Pair 4	SELF	2.010	423	0.8343
	OUSF	2.939	423	0.6848

Paired Samples Statistics				
		Mean	N	Std. Deviation
Pair 1	SBUY	2.039	407	0.936
	OBUY	2.985	407	0.719
Pair 2	SUSE	1.919	408	0.904
	OUSE	2.939	408	0.770
Pair 3	SATT	2.128	406	0.963
	OATT	2.983	406	0.749
Pair 4	SELF	2.027	401	0.836
	OCOLL	2.971	401	0.686

Paired Samples Test				
		t	df	Sig. (2-tailed)
Pair 1	SBUY-OBUY	-18.232	406	0
Pair 2	SUSE-OUSE	-19.722	407	0
Pair 3	SATT-OATT	-16.082	405	0
Pair 4	SELF-OCOLL	-20.014	400	0

Paired Samples Test				
		t	df	Sig.(2-tailed)
Pair 1	SBUY-USFBUY	-19.336	425	0.0
Pair 2	SUSE-USFUSE	-21.615	427	0.0
Pair 3	SATT-USFATT	-17.696	428	0.0
Pair 4	SELF-OUSF	-22.138	422	0.0

Appendix H (Continued)

Paired Sample Statistics

Paired Differences							
				Std. Error Mean	95% Confidence Interval of the Difference		
		Mean	SD		Lower	Upper	t
Pair 1	SBUY-USFBUY	-0.901	0.973	0.046	-0.991	-0.811	-19.736
Pair 2	SUSE-USFUSE	-0.980	0.965	0.045	-1.069	-0.891	-21.666
Pair 3	SATT-USFATT	-0.853	0.997	0.047	-0.945	-0.762	-18.300
Pair 4	SELF-OUSF	-0.092	0.863	0.041	-0.998	-0.839	-22.580
Pair 5	SBUY-OBUY	-0.094	1.033	0.050	-1.033	-0.838	-18.863
Pair 6	SUSE-OUSE	-1.000	1.038	0.050	-1.098	-0.902	-20.085
Pair 7	SATT-OATT	-0.857	1.064	0.051	-0.957	-0.756	-16.756
Pair 8	SELF-OCOLL	-0.934	0.932	0.045	-1.023	-0.846	-20.708
Pair 9	USFBUY-OBUY	-0.049	0.523	0.025	-0.098	0.001	-1.931
Pair 10	USFUSE-OUSE	-0.028	0.534	0.026	-0.078	0.023	-1.078
Pair 11	USFATT-OATT	-0.014	0.574	0.028	-0.068	0.040	-0.503
Pair 12	OUSF-OCOLL	-0.031	0.437	0.021	-0.073	0.010	-1.478

Paired Sample Tests			
		df	Sig. (2-tailed)
Pair 1	SBUY-USFBUY	453	0.000
Pair 2	SUSE-USFUSE	454	0.000
Pair 3	SATT-USFATT	456	0.000
Pair 4	SELF-OUSF	449	0.000
Pair 5	SBUY-OBUY	433	0.000
Pair 6	SUSE-OUSE	434	0.000
Pair 7	SATT-OATT	432	0.000
Pair 8	SELF-OCOLL	426	0.000
Pair 9	USFBUY-OBUY	431	0.054
Pair 10	USFUSE-OUSE	433	0.282
Pair 11	USFATT-OATT	431	0.615
Pair 12	OUSF-OCOLL	425	0.140

Appendix H (Continued)

Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	SD	Std. Error Mean
Pair 1	SBUY	2.044	454	0.9220	0.0433
	USFBUY	2.945	454	0.6963	0.0327
Pair 2	SUSE	1.932	455	0.8916	0.0418
	USFUSE	2.912	455	0.7516	0.0352
Pair 3	SATT	2.114	457	0.9506	0.0445
	USFATT	2.967	457	0.7587	0.0355
Pair 4	SELF	2.024	450	0.8265	0.0390
	OUSF	2.943	450	0.6700	0.0316
Pair 5	SBUY	2.058	434	0.9263	0.0445
	OBUY	2.993	434	0.7013	0.0337
Pair 6	SUSE	1.943	435	0.8975	0.0430
	OUSE	2.943	435	0.7613	0.0365
Pair 7	SATT	2.127	433	0.9550	0.0459
	OATT	2.984	433	0.7405	0.0356
Pair 8	SELT	2.041	427	0.8255	0.0400
	OEOLL	2.976	427	0.6711	0.0325
Pair 9	USFBUY	2.949	432	0.6895	0.0332
	OBUY	2.998	432	0.6930	0.0334
Pair 10	USFUSE	2.915	434	0.7504	0.0360
	OUSE	2.942	434	0.7622	0.0366
Pair 11	USFATT	2.968	432	0.7609	0.0366
	OATT	2.982	432	0.7397	0.0356
Pair 12	OUST	2.950	426	0.6683	0.0324
	OEOLL	2.981	426	0.6633	0.0321