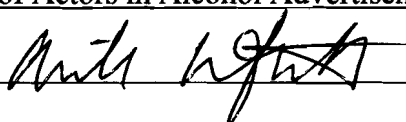


AN ABSTRACT OF THE THESIS OF

Jason Eberle for the Master of Science

in Psychology presented on June 10, 2004

Title: Perceived Age of Actors in Alcohol Advertisements

Abstract approved: 

This study investigated the perceived ages of actors in print advertisements for alcohol and the target audience. Participants were separated into two groups of advertisement conditions and asked to estimate the age of the actor(s). A gender effect was found to be statistically significant for three of the four advertisements in both conditions. Overall, women rated the actors significantly younger than men did. The third advertisement in the experimentally manipulated soda condition had a significantly younger perceived age than the original alcohol advertisement condition; producing the only condition effect. Perceived minimum target age for the advertisements in both conditions were below the age of 21, with advertisements containing soda cues having significantly lower ages.

PERCEIVED AGE OF ACTORS IN ALCOHOL ADVERTISEMENTS

A Thesis

Presented to

the Department of Psychology and Special Education

EMPORIA STATE UNIVERSITY

In Partial Fulfillment

of the Requirements for the Degree

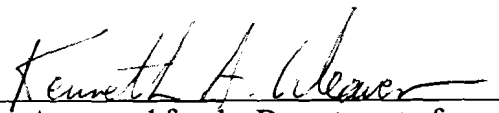
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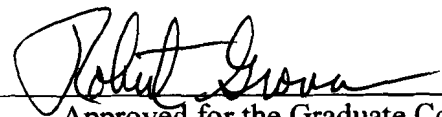
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Approved for the Department of
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Approved for the Graduate Council

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TABLE OF CONTENTS

ACKNOWLEDGMENTS.....	iii
TABLE OF CONTENTS.....	iv
LIST OF TABLES.....	vi
LIST OF FIGURES.....	vii

CHAPTER

1 INTRODUCTION	1
History of Alcohol Advertising.....	3
Alcohol Advertising in the United States.....	3
Alcohol Advertising in New Zealand.....	5
Regulation of Alcohol Advertising.....	7
European Alcohol Advertising Regulations.....	7
United States Alcohol Advertising Regulations.....	9
Alcohol Industry Self-Regulatory Codes.....	10
Background of Alcohol Advertising Research Theory.....	11
Stimulus-Oriented Perspectives.....	12
Receiver-Oriented Perspectives.....	13
Interpersonal Perspectives.....	15
Analysis of Alcohol Advertising.....	16
Content Analysis.....	16
Theme Analysis.....	18
Frequency Analysis.....	19
Effects of Alcohol Advertising.....	21

Drinking Intentions and Advertisements.....	21
Reasons for Drinking Alcohol.....	22
Effectiveness of Public Service Announcements (PSAs)...	25
Effects of Warnings about Alcohol.....	27
Counterarguing Alcohol Advertisements.....	29
Perceived Ages of Actors in Alcohol Advertisements.....	31
2 METHOD.....	34
Participants.....	34
Design.....	34
Instrument.....	35
Procedure.....	36
RESULTS.....	37
Primary Analyses.....	37
Exploratory Analyses.....	42
4 DISCUSSION.....	48
REFERENCES.....	54
APPENDICES.....	63
Appendix A: Informed Consent.....	63
Appendix B: Advertisement Questionnaire.....	65
Appendix C: Debriefing Form.....	76

LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
1	Mean Age of Actors by Group.....	38
2	Mean Age of Actors by Advertisement.....	39
3	Minimum Target Age by Advertisement Condition.....	43
4	Means and Standard Deviations for Minimum Target Audience for All Advertisements.....	45
5	t Values for Appeal Ratings of Advertisements by Appeal to Self or Target Audience.....	46
6	Means and Standard Deviations for Target Audience by Condition.....	47

LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
1 Original Alcohol Advertisements and Experimentally Manipulated Advertisements.....	40

CHAPTER 1

INTRODUCTION

Alcohol is an omnipresent product in society. Alcohol advertisements can be found on the radio, in magazines, and on television (Martin et al. 2002; Woodside, 1999). The World Health Organization has recognized that alcohol advertisements in the United States and around the world are aggressively targeted toward teens, encouraging them to drink heavily (International Handbook of Alcohol Dependence and Problems, 2001). The alcohol industry spends billions of dollars annually in order to change consumer preferences (Center on Alcohol Marketing and Youth, 2003). All three major alcohol-producing industries (beer, wine, liquor) set self-imposed guidelines to prevent appeal to underage people (The Center on Alcohol Marketing and Youth, n.d.). It is becoming increasingly important to identify what aspects of alcohol advertisements are appealing to underage persons, and how they are influencing underage consumption of alcohol as well.

The United States is not alone in examining the effects of alcohol advertising on underage persons. New Zealand has examined the relationships between alcohol advertising and underage drinking as well as problems from alcohol consumption (Casswell, 1995; Casswell & Zhang, 1998; Connolly, Casswell, Zhang, & Silva, 1994; Wyllie, Zhang, & Casswell, 1998a, 1998b). Alcohol advertising has been rising in the United States (Woodside, 1999), just as it has for places like New Zealand (Casswell & Zhang, 1998). Identifying what people under the legal drinking age find appealing about alcohol advertisements is important in preventing a possible propensity for consuming alcohol. This would allow the alcohol industry to modify

their advertisements to more accurately appeal to their proposed target audience of people over the age of 21.

Statement of Problem

Drinking and driving is a serious and dangerous problem in our society. Alcohol commercials have been shown to slightly increase drunk driving (Atkin, 1989), as well as increase the frequency and overall consumption of alcohol in a variety of occasions (Atkin, 1990). The alcohol industry itself has violated its codes for advertising (Hill & Casswell, 2001). Even more alarming, by age seven, children can develop a strong awareness about the individual beer brands themselves (Austin & Nach-Ferguson, 1995). Alcohol advertising increases alcohol-related problems (Casswell, 1995), alcohol-related aggression (Casswell & Zhang, 1998), as well as consumption of alcohol among youth in New Zealand (Connolly et al., 1994). Research has demonstrated that alcohol advertising stimulates consumption levels, which leads to heavy drinking, drinking in dangerous situations, and the message itself conveying heavy or excessive consumption to the viewers (Atkin, Neuendorf, & McDermott, 1983). As children grow older, they are exposed to more alcohol advertising, report liking various aspects of the commercials or advertisements (Waiters, Treno, & Grube, 2001), and become more involved with the advertisements (Grube, 1993).

Statement of Purpose

The purpose of this study is to expand upon the existing literature pertaining to the perceived ages of actors in alcohol advertisements. Although Slater et al. (1996) examined perceived ages of actors in alcohol advertisements from adolescents,

the current literature has not yet examined perceived ages of actors in alcohol advertisements among adults. This study specifically examines adults' perceptions of actors ages in alcohol advertisements and perceived age of the advertisement's target audience. Bridging the gap between adolescent and adult perceptions of the actors can further our understanding of how these advertisements influence alcohol consumption.

Literature Review

History of Alcohol Advertising

Research into alcohol advertising and its effects upon young people, women, minorities, and the population in general has received much attention. Within the literature, one finds contradictory findings and methodological weaknesses. Some studies conclude that advertising has minimal or no effect upon alcohol consumption and propose that bans on alcohol advertising will have no effect (Adlaf & Kohn, 1989; Smart, 1988; Strickland, Finn, & Lambert, 1982). A review of the literature concluded that advertising bans have very little impact on overall sales of alcohol. The review reports that effects of advertising are either small or nonexistent and that alcohol advertising is a weak variable affecting alcohol consumption (Adlaf & Kohn, 1989; Smart, 1988). Although Smart reviewed the literature up to the year 1988, the alcohol industry violated its voluntary code of not advertising on television in 1996. As a result, the conclusions from 1988 may not be valid today.

Alcohol Advertising in the United States

Regulating alcohol advertising have been left up to the alcohol industry itself. According to the *International Handbook of Alcohol Dependence and Problems*,

(2001), the spirits industry proposed a self-regulatory code in 1948 to subvert Senate proposals to ban all television advertising of alcohol. A Canadian-based company called Seagram breached this ban in 1996 by showing on national television an advertisement for Crown Royal. Following suit, the Distilled Spirits Council of the United States (DISCUS) lifted its ban of advertising on television citing that imported alcoholic beverages had an unfair advantage (Woodside, 1999). However, spirits advertisers brought it upon themselves in terms of overall decreased advertising (Woodside, 1999). In 1999, the Federal Trade Commission (FTC) found that four of the eight beer and spirit companies were in violation of their own codes, and two companies were targeting underage persons in one quarter of their advertisements. Yet the FTC recommended the alcohol industry continue regulating its practices with the addition of a third-party to review complaints. An important conclusion from this report is that the alcohol industry codes do not apply to the practices. The consensus among experts is that the advertisements are not selling the product, but rather portraying lifestyles and fantasies in which the product is crucial for their attainment (Hill & Casswell, 2001).

Just after the ban of advertising on television was lifted, researchers examined the amount of advertising and media being employed to sell the products. In 1997, distilled spirits advertisements were located primarily in magazines and outdoor placements such as billboards. The magazines that contained the highest advertisement expenditures were *Sports Illustrated*, *Rolling Stone*, *Entertainment Weekly*, *Newsweek*, and *Playboy* (Martin et al., 2002). Many of these magazines are read by young children and adolescents (Martin et al., 2002; Sanchez, Sanchez,

Goldberg, & Goldberg, 2000). Woodside (1999) provides support for this in his analysis of alcohol expenditures. More than 90% of the money spent on advertising beer was toward television commercials while spirits advertising was concentrated in print media.

Alcohol Advertising in New Zealand

If those who propose that alcohol advertising has little or no impact on consumption are correct, lifting a total ban in an area should not produce an increase in overall consumption of alcohol or consumption by underage persons. This was not the case for New Zealand in which an almost complete ban on alcohol advertisements was lifted in 1992. Upon allowing corporate advertising in 1987, one corporation registered the brand name as the company name, and the country started airing commercials for alcohol. This gave beer companies a way to keep within the law in which it was constructed; namely advertising brand names (Thomson, Casswell, & Stewart, 1994). Later, in 1992, New Zealand made another policy change allowing brand advertising onto television. From 1991 to 1993, the country saw a four-fold increase in advertising expenditures for alcohol on television (Casswell & Zhang, 1998). Money may have played a role in the decision to allow alcohol advertising on television. It appears the broadcast media were facing a budget crunch from which they may not have recovered, so they allowed alcohol to be advertised on television to get the desperately needed advertising revenues back up (Casswell, 1995).

As a result, there was an increase in the commercials remembered and the alcohol consumption of adolescents after lifting the ban. Those who recalled more alcohol commercials at ages 13 and 15 were more likely to drink at age 18, but this

relationship was found only for men (Connolly et al., 1994). According to Casswell (1995), men who liked the advertisements the most drank twice as much as those who liked them less, had more alcohol-related problems, and felt that alcohol advertising was impeding their recovery process. However, these studies note the relationship between drinking and advertising exposure is correlational and those who drink may seek out advertisements for alcohol much more than nondrinkers. Thus, the direction of the relationship between exposure and memory for alcohol advertisements and drinking has not been determined. However, a relationship among liking alcohol advertising, brand allegiance, subsequently drinking larger volumes of beer, and alcohol-related aggression has been documented in the literature after the lifting of the ban (Casswell & Zhang, 1998). Finally, positive responses to beer advertisements increase the frequency of current and future drinking among 10 to 17-year-olds (Wyllie, Zhang, & Casswell, 1998a), as well as increase the quantity consumed per occasion by 18 to 29-year-olds, leading to alcohol-related problems (Wyllie, Zhang, & Casswell, 1998b).

Support for advertising bans comes from Saffer (as cited in Casswell, 1995), who collected data from 17 countries over 14 years and found those countries had significantly lowered both the per capita consumption and motor vehicle crashes when they introduced bans. In examining the content and frequency of advertisements, one can see in both countries that the amount of money as well as portraying lifestyles increased after a ban was lifted. Studies from both countries indicate alcohol advertising has an influence on young people's intentions to drink and at which age they begin drinking.

For example, Thomson et al. (1994) interviewed experts in education, sociology, and mass media, as well as creative directors of advertising agencies and directors of major market research companies in New Zealand. Most respondents believed beer advertising to be aggressive in nature, use sports heroes to appeal to young, television was a powerful and influential medium for children, and the common age range of the perceived target group was 18 to 25 years. Sixty-six percent of academics and 50% of head creative directors agreed that the advertising was a likely contributor to reducing the age at which young people start drinking. Most respondents thought television to be a medium in which children and adolescents form impressions, values, beliefs, and develop role models, as well as emulate lifestyles. Thus, the argument of alcohol advertising having a minimal affect on underage drinking or influencing heavier drinking is unconvincing given the recent history of New Zealand's advertising practices. However, no empirical evidence suggests that the youth of the United States and New Zealand either are or are not representative of one another.

Regulation of Alcohol Advertising

European Alcohol Advertising Regulations

With regard to alcohol advertising, there does not appear to be much difference between the United States and Europe. Both have standards and practices that are supposed to limit the influence on and marketability to minors have been judged to fail in this regard. Europe has regulatory bodies to determine what does and does not make the airwaves or print advertisements, whereas alcohol companies are in charge of monitoring their advertising behavior in the United States. At first

glance, it would appear that Europe has a stricter alcohol advertising code than the United States; but some European regulations only apply to alcoholic drinks containing more than 1.2% alcohol by volume. If the product falls below this cut off, the age requirement for the advertisement actor(s) falls from 25 to 18, in terms of the actor's age and how old the actor must look. The product can be promoted for multiple purchases in which it appears that the advertisement encourages excessive consumption, which would be illegal if the beverage were above 1.2% alcohol by volume (Institute of Alcohol Studies, 2002, p. 5).

A finding that should carry more weight to the argument that alcohol companies are targeting youth comes from the Declaration of the Technical Consultation to the World Health Organization on the Marketing and Promotion of Alcohol to Young People. A meeting of 50 experts in fields such as marketing, public health and community, national and international level responses from 22 different countries. After viewing advertisements from Asia, Africa, Europe, Oceania, and the Americas, the group concluded that young people around the world live in an environment of aggressive and omnipresent efforts to encourage them to drink heavily. Similar to findings in North America, the use of music, sport sponsorships, Internet promotions, product placement, on-premise and special event promotions are used to create a perception that drinking is an important part of life for young people. The finding by this body parallels own congressional findings that the self-regulation of the alcohol industry has been ineffective. However, alcohol companies are not the only organizations or bodies to blame for underage drinking.

United States Alcohol Advertising Regulations

Current estimates of advertising expense and marketing from alcohol companies is in excess of 4.5 billion dollars per year. While this is a very large figure, alcohol advertising is not permitted to run rampant without regulation by individual states. An exhaustive review of state laws dealing with alcohol advertising regulations suggests individual states may share some responsibility for underage drinking. This review examined eleven domains for every state and gave each a rating of best practice an “*P*” indicating one but not all aspects of a best practice present, or “--”, indicating the state does not address that domain, has no aspects of the best practice, or is unenforceable. Kansas in particular, did not receive a single best practice rating for any domain examined, while Virginia had the best record give it of all 50 states. An interesting finding is that states have the authority to regulate television and radio transmissions as long as those transmissions *originated within* the state. This would mean that alcohol advertisers can buy airtime for nationally televised events and the advertisement can run from state to state. The only applicable restrictions are those the originating state places upon the advertisement. Clearly, states need to begin working together to set guidelines so this circumvention of state law no longer occurs. This review was not without limitations though. It was acknowledged that a state could have alternate wording or wording that was too ambiguous and a law could be in place but not considered in the analysis (The Center on Alcohol Marketing and Youth, 2003). All of the previously mentioned information begs the question of which alcohol organizations, if any, are truly regulating and enforcing their advertising practices.

Alcohol Industry Self-Regulatory Codes

Three bodies within the alcohol beverage industry have self-regulatory codes. The Beer Institute, DISCUS, and the Wine Institute comprise these three bodies (The Center on Alcohol Marketing and Youth, n.d.). Many of the provisions contain ambiguous wording and most are not operationally defined. Some provisions use phrases like “in good taste” or “consumed excessively” without giving any criteria to judge an advertisement should someone voice concern (*Beer Institute Advertising and Marketing Code*, n.d.). Moreover, advertisements for beer seem ambiguous regarding the Beer Institute’s guideline, 4a:

Beer advertising and marketing materials should not employ any symbol, language, music, gesture, or cartoon character that is intended to appeal primarily to persons below the legal purchase age. Advertising or marketing material has a “primary appeal” to persons under the legal purchase age if it has special attractiveness to such persons above and beyond the general attractiveness of the legal purchase age, including young adults above the legal purchase age (p.2.)

Guideline 4f appears counterproductive to the prevention of marketing to persons under the legal purchase age. In this guideline, brewers can display advertisements at events that are primarily adult-oriented, but which are also ‘occasionally’ attended by persons predominately under age 21. The wording of the guidelines for these three bodies are vague in some areas and specific or operationally defined in others. This can leave readers confused as to what the actual practices are

and what is deemed appropriate by the alcohol industry. Of the three bodies mentioned, both the Beer Institute and DISCUS have review boards for citizens to file complaints. Only the Beer Institute gives a phone number to voice a complaint, and neither have a mailing address on their codes of marketing for citizens to mail a complaint. It is also worth mentioning that of all three self-regulatory codes, none are more than four pages in length with the Beer Institute consisting of only three pages, and none of the industry regulations specify which companies the regulations pertain to. This is not the extent of the self-regulatory codes; some companies placed their own self-regulatory codes of conduct, but it highlights the need for additional, specific information if they truly want to minimize underage drinking.

Background of Alcohol Advertising Research Theory

Several theoretical orientations have been used to study advertisements for alcoholic beverages starting in the late 1980's. These orientations can be broken down into three broad categories with three subcategories. These orientations propose how advertisements affect people and are grounded in social learning theory (Bandura, 1986). Some theories place the emphasis of influence outside the observer's control while others emphasize the process by which the receiver manipulates the information. Still, others examine how television has an indirect impact through altering patterns of social influences and responses to those influences (Atkin, 1989, 1990). The first is a stimulus-oriented perspective. This category posits that the individual is simply an observer and reacts to the information provided. The three subcategories include social learning theory, cultivation theory, and agenda-setting.

Stimulus-Oriented Perspectives

Social learning theory. Social learning theory focuses on responses to stimuli that are portrayed by human models. If a model is high in status, such as a celebrity to the observer, or the model receives reinforcement for actions, the impact should be greater for the person viewing that model. This can allow a person to form expectations or anticipate possible rewards for engaging in a particular behavior. The symbolic modeling can shape the view of what behavior is appropriate when it is appropriate. Social learning theory also posits that the model can serve as a cue to engage in a behavior that is already in the observer's repertoire. In a related process, the observer will infer attributions of the model and the situation as well as the social role of the model. Thus, the observer may attribute alcohol with success or sexual prowess, and form a stereotyped view of the kind of people who drink a brand of alcohol or alcohol in general (Atkin, 1989, 1990).

Cultivation theory. This theory concentrates on formation and shift of beliefs about society. One tenet is that diverse groups of people immersed in a common symbolic environment of television, will develop a shared construction of reality. That is, these different groups will adopt the perception that what is on mainstream TV is in fact reality. In the case of alcohol, the omnipresence of the substance in programming leads to the perception that alcohol is an integral part of our society. Through this process, television constructs the social reality that these divergent groups will ultimately share what has been termed a center of gravity (Atkin, 1989, 1990).

Agenda-setting. This theory predicts an event or issue will be perceived as being important from the frequency and prominence by which it is presented. Shift in beliefs or attitudes of the issue are not key to this theory but rather the salience the audience attaches to the issue presented. Hence, something may be deemed more important simply by the frequency and intensity by which it is reported, while something that may be crucial could be seen as unimportant because the media either does not report it frequently or give the issue enough attention. Simply watching an advertisement can serve as a reminder of the benefits of alcohol, that drinking is an option, or reinforce current drinking during the advertisement. The second broad category conceives that the individual plays the largest role in determining the influence process and behavioral outcomes (Atkin, 1989, 1990).

Receiver-Oriented Perspectives

Uses and gratifications theory. This theory purports that individuals selectively attend to media channels and messages that satisfy their needs. People select from a variety of media outlets to receive satisfaction on a variety of needs. Those intrinsically motivated to learn about a topic will actively seek out that information and retain it better than those who simply watch TV for emotional arousal. Those who do not want to be exposed to reports such as public service announcements (PSAs) will avoid such channels (Atkin, 1989, 1990).

Cognitive response. This theory emphasizes the thoughts a person generates while processing a message. This fleshes out the receiver-oriented perspective. A person actively relates the material being presented with prior knowledge and experience to form new ideas about the theme of the message. These ideas can be

either favorable or unfavorable toward the message being presented. Some will form a favorable impression of the message by linking the new information with prior knowledge to form a supportive argument for the content. Others will form an unsupportive argument for the content when they are not persuaded by the message, but rather they counter-argue, form derogatory ideas about the sponsor, or deny that the advertisement applies to them (Atkin, 1989, 1990).

Expectancy-value theory. This emphasizes the audience's predispositions in forming attitudes about behavior. Each individual produces a variety of belief expectancies, which are produced by messages received from the media. A tenet of this theory is the value system already in place. Those who share values with which the advertisement advocates should develop a favorable impression of the advertisement; while those who do not share those values the advertisement is advocating, should develop an unfavorable impression. This theory also proposes that if the media portrays drinking in a homogeneous light, then it would produce its desired outcome. However, if the portrays mixed messages, such as alcohol advertisements and PSAs, the behavior should be inconsistent. These are not the only categories that explain how or why advertising is appealing. Instead of pitting the stimulus-oriented perspectives against the receiver-oriented perspectives, another kind of perspective examines the indirect impact of television by altering patterns of social influence and responses that people have to such influences (Atkin, 1989, 1990).

Interpersonal Perspectives

Television can influence a large group of people to perceive that there is nothing wrong with engaging in risky behavior, which in turn, will reduce the probability of somebody expressing disapproval for such behavior. Group leaders may distort the message content as well. These leaders have the potential to change what others perceive the message to convey. With a heightened receptivity toward pro-risk influences, people are more likely to resist warnings by their peers which can lead to a situation where messages such as PSAs have no influence. Television may also shape normative standards or conceptions about risky behaviors or situations in teenagers (Atkin, 1989, 1990).

Since consequences for risky behavior are rarely presented, and viewers conclude that the behavior is widely practiced and accepted, a person may think that others support their perception about risk-taking activities even when peers do not express any support. Thus, a teenager or any person may believe that the behavior is not risky and is socially accepted by others even when their peers have provided no external approval. This perspective incorporates the peer process of how messages are perceived and the weight that peers carry when evaluating a message. Messages that peers approve of should be more influential to the individual as well as when peers do not voice disapproval (Atkin, 1989, 1990).

Teenagers may be vulnerable to advertisements due to lack of experience with alcohol and limited opportunities to directly observe others drinking. This, along with exposure to alcohol advertisements, may produce an environment conducive to encouraging alcohol consumption. Many studies have examined the content and

themes of alcohol advertisements since the early 1980s. Support for alcohol advertising leading to subsequent alcohol consumption is mixed. Literature supports the general conclusion that alcohol advertising has a small effect on alcohol consumption but that more important variables, such as peer pressure, should be considered. Still, this does not detract from the problem of alcohol portrayals and underage alcohol consumption.

Analysis of Alcohol Advertising

Content Analysis

Strickland et al. (1982) were the first to empirically examine the content of alcohol advertisements and consider their possible impact upon underage drinking. The analysis revealed that most magazine advertisements used a product related approach much more than using human models. In fact, Strickland et al. reported less than 40% of the magazine advertisements they examined portrayed human models with male models being portrayed more often than female models. The authors judged that less than 2% of the models were under the age of 25, and found little support for the contention that Blacks, women, and youth are being targeted by magazine advertisements. Most of the magazine advertisements were in full color, one filled page, and made some reference to taste of the product. The authors note that while magazine advertisements are important to consider, television advertising is the medium that has drawn the most criticism and attention.

Finn and Strickland (1982) found the number of male to female models in television advertisements for wine almost equal, but male models outnumbered women by a 5:1 ratio in beer advertisements. The authors also found, similar to

Strickland et al. (1982), that the primary ages of the models were between 25 to 39. A majority of celebrities featured in the advertisements were sports celebrities (Finn & Strickland, 1982), which has been shown to enhance a positive evaluation of the product as more enjoyable and pleasant (Atkin & Block, 1983). Over 90% of the commercials contained human models, more than 80% showed a drinking scene, while there were no moderation messages (Finn & Strickland, 1982). While these studies represent an extensive look at advertising of the day and the impact upon alcohol consumption, they were conducted more than a decade before the breaking of the voluntary ban in 1996; thus calling into question the conclusion Strickland et al. (1982) as well as that of Finn and Strickland that alcohol advertisements have no effect upon alcohol consumption.

Some of the more common portrayals in alcohol advertisements are sociability, elegance, physical attractiveness, fun lifestyles, humor, animation, animals, celebrity endorsers, rock music, and outcomes such as relaxation, romance, and adventure (Atkin & Block, 1983; Atkin, Hocking, & Block, 1984; Aitken, Leather, & Scott, 1988; Finn & Strickland, 1982; Smith, Atkin, & Fediuk, 2000; Strickland et al., 1982; Waiters, Treno, & Grube, 2001). Grube (1993) found that alcohol commercials were broadcast more often in professional sports programming or embedded within the programming such as “this half-time report is brought to you by” (p.63). As children age, they become more aware of and engaged in the commercials, especially those having celebrity endorsers, portray humor, fun lifestyles, animation, and rock music (Grube, 1993).

Waiters et al. (2001) found in students ranging from fourth grade to tenth grade that animals being able to talk were a positive feature of an alcohol commercial. Students in all groups of the study responded favorably to music and use of humor as well. In general, this study found that humor, music, and animals were the most attractive features of the commercials sampled. Women commented on the cuteness of the animations whereas men commented on technological innovation of the commercial. All groups of participants disliked product-focused elements of commercials as well as poor technical presentation.

One cannot draw strong conclusions from any single study on content of advertisements alone due to the nature of the data analysis performed. The studies mentioned above are not experimental in nature but are correlational or qualitative. Thus, one is not permitted to say that the content of alcohol advertising is the causal agent of alcohol consumption of underage drinkers, but with the growing body of evidence one can become more confident in saying it has an effect. To increase confidence in taking the position that alcohol advertising does influence alcohol consumption, themes of advertisements should be examined as well as implementing experimental designs whenever possible.

Theme Analysis

Themes are an important element to consider when examining alcohol advertising. Many studies either directly or indirectly consider themes when looking at alcohol advertisements. For example, Strickland et al. (1982) found the most common themes to be quality, information, and tradition or heritage while the lifestyle themes were primarily absent from their sample. Similarly, Finn and

Strickland (1982) found in their sample of television advertisements themes of conviviality, camaraderie, relaxation, humor, information, tradition and heritage, and quality occurring most frequently. Lifestyle, status appeal, psychological orientations, and sexual or romantic connotations appeared infrequently in their analysis (Finn & Strickland, 1982). In reviewing the literature, common themes in alcohol advertisements for both mediums are humor, bright and colorful, music, stylish, relaxation, male toughness or machoism, social success, physically attractive models, and life themes (Aitken et al., 1988; Finn & Strickland, 1982; Grube, 1993; Parker, 1998; Smith et al., 2000; Strickland et al., 1982; Waiters et al., 2001; Wyllie, Casswell, & Stewart, 1989). All of these combine to portray a lifestyle that the product is implied to help the viewer attain while few advertisements actually promote the content of their product. Some literature suggests that younger viewers and adolescents dislike product-focused aspects of TV commercials (e.g., Waiters et al., 2001). It seems that alcohol commercials and advertisements are everywhere in society. While the content and the theme(s) of the advertisement are important, so is the frequency at which the product is advertised.

Frequency Analysis

Exposure to alcohol advertising is positively correlated with higher rates of drinking among underage persons and intention to drink in the future (Adlaf & Kohn, 1989; Atkin, 1989, 1990; Atkin & Block, 1983; Atkin et al., 1984; Grube & Wallack, 1994). Snyder, Fleming, Mitchell, and Proctor (2000) showed that in 1997, 70% of all advertising dollars for alcohol were spent in the television medium and 22% was spent in magazines. Beer companies spent 71% of their advertising budget on TV

commercials whereas the distilled spirits industry spent 89% of their advertising budget on magazine advertisements. The expenditures for alcohol advertising overall were greatest in the late spring/early summer as well as the holiday season (Snyder et al., 2000).

What is alarming is in December of 1997, 94.5% of all national beer ad expenditures were during sports programming and more than half of them (55%) were on Saturday or Sunday afternoon. Distilled spirits were advertised in magazines more than all other products combined for each month with their largest expenditures coming in December for *Sports Illustrated*, *Rolling Stone*, *Entertainment Weekly*, and *Playboy* to name a few (Snyder et al., 2000). However, the Internet was not considered in the analysis nor were multiple years examined. The local markets were not tested for their individual frequency of advertising and the instrument used to measure the amount of money spent was insensitive to fluctuations in price for advertisements in the respective media.

In a related study, *Sports Illustrated* had five times as many alcohol advertisements than *Time*, and *Rolling Stone* had the highest number of alcohol advertising pages per issue (Sanchez et al., 2000). However, younger readers may only view a portion of the magazine, which may not have any advertisements in that section. Madden and Grube (1994) examined alcohol commercials during sporting events from fall 1990 through summer 1992 and found they accounted for 77% of all beverage commercials. Sponsorships for nonalcoholic drinks did appear for golf tournaments, and of 685 alcohol commercials, only 3 contained moderation messages (Madden & Grube, 1994).

Effects of Alcohol Advertising

Drinking Intentions and Advertisements

Much of the data on the effects of alcohol advertisements upon intentions to drink is correlational. Current research suggests that alcohol advertisements have a moderate influence upon children and adolescents in their intentions to drink alcohol, with men consuming more than women (Aitken, Eadie, Leather, McNeill, & Scott, 1988; Atkin et al., 1984; Atkin et al., 1983; Austin & Heili, 1994; Connolly et al., 1994; Grube & Wallack, 1994; Kelly & Edwards, 1998). For example, one study suggests that much of the advertising influence works through everyday drinking behavior such that advertisements stimulate greater consumption and greater consumption leads to heavy drinking or problem drinking, which leads to drinking in hazardous situations (Atkin et al., 1983). Advertising has a stronger effect on drinking liquor whereas peers have a stronger effect on drinking beer and wine. However, parental influence is a significant predictor for all three types of alcoholic beverages (Atkin et al., 1984). Those who do drink alcohol are better able to recall and identify alcohol advertisements and are more appreciative of them (Aitken et al., 1988).

As children age, their descriptions of alcohol advertisements become more complex and specific. Some researchers have suggested that a majority of kids above 10 years of age are aware of television advertisements for alcohol (Aitken et al., 1988). Interestingly, the style of the advertisement affects young audiences. Kelly and Edwards (1998) examined intentions to drink among adolescents and preferences for lifestyle advertisements or product advertisements. They found that adolescents pay more attention to the lifestyle advertisements, like them better, find them more

persuasive, and report that their friends would prefer them to the product advertisements. Appeal of lifestyle advertisements decreased with age of the adolescent, which suggests that as we age, lifestyle appeals have less influence than product advertisements. While descriptions of appeal and type of advertisement become more complex as children age, other factors of advertisements influence a person's intention to drink alcohol.

Children use referents such as parents to decide whether or not to accept advertisements. Desirable advertisements may be rejected if they are not similar to personal experience. When forming decisions about drinking in the future, they can use perceptions of alcohol related behaviors in the home environment, interpretation of television messages, identification with actors, and expectancies that drinking will bring rewards. Alcohol advertisements affect children in logical and emotional ways that may cause them to develop dangerous intentions and expectancies of alcohol consumption. Even if the advertisement is unrealistic, the child may be influenced emotionally (Austin & Meili, 1994). While these studies support the belief that alcohol advertisements influence adolescents' intentions to drink, they are correlational research.

Reasons for Drinking Alcohol

Adolescents and adults give many reasons for consuming alcohol. Among some for adolescents are expectancies and values. These refer to the expectations of what drinking alcohol will bring and how desirable or undesirable these expectations are to the individual. Positive and negative expectancies can influence the quantity that people drink, but not the frequency (Chen, Grube, & Madden, 1994). The model

of expectancies and values predicts that individuals will drink more when they perceive positive expectancies as being high and the consequences as being favorable (Grube, Chen, & Madden, 1995). According to Grube et al. (1995), the converse of perceived negative consequences as being very likely and very undesirable would result in low levels of alcohol consumption. It appears that the effects of expectancies on drinking are conditional upon the evaluations given to the consequences of drinking. Drinking alcohol appears to be a result of a rational decision-making process in which the individual weighs the personal costs and benefits, which in turn leads the person to act in a way that maximizes the desirable and minimizes the undesirable outcomes. While maximizing good and minimizing aversive experiences are one way of looking at why people consume alcohol, there are other models and possible reasons put forth in the literature.

Grube and Agostinelli (1999) have built upon the expectancy and values model with their own in determining reasons why adolescents drink alcohol. It appears that social facilitation and affective enhancement interact to produce a synergistic effect. Drinking was highest among adolescents when negative expectancies were low and affective enhancement was high; as well as for the synergistic effect of social facilitation interacting with affective enhancement (Grube & Agostinelli, 1999). Children may have a considerable amount of general and brand-specific knowledge about alcohol from TV as a source of information predicting general knowledge, whereas parental mediation predicts brand-specific knowledge. Brand-specific knowledge and liking of commercials has been shown to predict drinking. Disturbingly, some research reports that 7 to 9-year-olds know just as much

brand information as 10 to 12-year-olds and suggests that children as young as age 7 have strong beer brand awareness (Austin & Nach-Ferguson, 1995). Although brand awareness is a potential predictor of future alcohol consumption, other variables such as parental alcohol consumption, access to licensed drinking establishments, earlier drinking (Casswell, Pledger, & Pratap, 2002), as well as the situational variables such as enhancing a meal, celebrating, or being sociable/polite (Kairouz, Gliksman, Demers, & Adlaf, 2002) are important. These are all possible reasons for individuals to consume alcohol, but other variables influence how much alcohol is consumed in one situation to the next.

People do not drink in the same manner from one situation to another. Kairouz et al. (2002) found that undergraduates drink for aesthetic reasons, social reasons, and to a lesser extent, compliance reasons. In their analysis, social reasons were by far the main reasons for drinking. Some of the most powerful data comes from Casswell et al. (2002), who utilized a longitudinal design in determining why men in New Zealand were consuming heavy quantities of alcohol at 18-years-of-age. They found that drinking on licensed premises at age 18 was the most robust variable. There are other variables within this population that lead to drinking as well. Wyllie and Casswell (1991) found that low self-esteem, peer group affiliation, and relations with women were key determinants of drinking. The men used alcohol as a confidence builder to approach women and make the possibility of rejection tolerable. These data may prove unreliable as the researchers gave the participants alcohol to drink to encourage participation in the study. Plus, as mentioned previously, data do not currently exist that suggest that the population of New Zealand is representative of

the United States. People may drink for social reasons, liking of alcohol advertising, low self-esteem, lack of confidence when engaging the opposite sex, as well as the expectations and desirable outcomes that consuming alcohol in particular situations are perceived to bring.

One may ask what, if anything, is being done to prevent underage and excessive drinking. Research has been aimed at alleviating such concerns primarily through evaluating PSAs and how children or adolescents process the messages. Research in this area has produced mixed results. The effectiveness of the PSA is dependent upon several factors that currently place it at a disadvantage to alcohol advertisements in competing for underage influence.

Effectiveness of Public Service Announcements (PSAs)

Public Service Announcements can come from a variety of sources including the alcohol companies themselves. DeJong, Atkin, and Wallack (1992) examined PSAs from three companies and found their moderation messages had strong prodrinking messages and serve to reinforce the perception that problems with alcohol are the responsibility of the individual consumer and bear no responsibility upon the companies themselves. Moreover, DeJong et al. (1992) assert that these PSAs gloss over public health messages; and undermine prohealth messages by presenting themes and images that are consistent with the beer companies' regular brand promotions. There are other studies that examine PSAs that are not created by breweries or the alcohol industry, but collectively they are not effective.

Andsager, Austin, and Pinkleton (2001) evaluated PSAs and compared them to alcohol advertisements emphasizing perceived message qualities such as realism

and production quality. Not surprisingly, alcohol advertisements were rated as being more enjoyable and visually appealing than the PSAs. While PSAs were considered to be more realistic and straightforward than the advertisements themselves, the young participants did not perceive the messages as being real or similar to themselves or their lives. Andsager et al. stress that PSAs need to be more realistic and relevant to make an impact and have better production quality. Even though the adolescents knew that the PSA was more truthful, wishful thinking outweighed their logical processing (Pinkleton, Austin, & Fajioka, 2001). Other research suggests that while the production quality in PSAs need improvement, their orientation needs to change as well. In order for the alcohol-PSAs to have an impact, they need to be appealing in quality and logic, and use a more positive approach (Pinkleton et al., 2001), instead of trying to instill fear (Treise, Wolburg, & Otnes, 1999). This appears to not be enough though. If PSA developers want to have an impact on underage or excessive drinking, then other factors need to be altered.

Some research strongly encourages PSA developers to make advertisements that combat the 'social gifts' of drinking as well treating alcohol consumption among college students as a ritual behavior. Data suggest that college students see alcohol consumption as a rite of passage (Treise et al., 1999). Perhaps PSAs would have more impact if they encouraged underage persons to be part of the "majority" that does not drink heavily (Glider, Myidyett, Mills-Novoa, Johannessen, & Collins, 2001). Saffer (2002) reports that once PSA's are experienced at a high level, the response flattens out or becomes a diminishing marginal product, meaning that PSAs will no longer produce the desired effect. Public Service Announcements may not have their desired

effect due to a 'hostile environment' phenomenon where the abundance of alcohol advertisements and lack of PSA or moderation messages creates an environment where such messages are not tolerated and are subject to intense criticism, which in turn can eliminate their efficacy (Wallack as cited in Casswell, 1995).

Effects of Warnings about Alcohol

Alcohol warning labels were not made mandatory until November 18, 1989 (MacKinnon, 1993). Research examining the effects of warning labels on memory and avoidance of consuming alcohol suggest various methods for curbing underage drinking and explain why warnings appear to be ineffective. MacKinnon, Pentz, and Stacy (1993) found in the year following the warning label implementation, 90% of adolescents believed alcohol could cause the risks detailed on the label, awareness of the label increased, and were able to correctly distinguish actual risks on the label as well as distracter risks. Following this, MacKinnon, Nohre, Pentz, and Stacy (2000) examined adolescents five years after the introduction of the alcohol warning label to assess the same areas that were examined previously. MacKinnon et al. (2000) found the novelty of the warning label had worn off and suggest rotating different warning labels to increase its novelty and keep the warning salient. Specifically, warning labels with the words "poison," "toxic," and "causes cancer" since these were determined to produce greater avoidance responses than the current government warning label (MacKinnon, 1993). In fact, research suggests that warning labels using these qualifiers will produce avoidance reactions across the type of bottles because they apply to all groups of people under any condition (MacKinnon, Numeroff, & Nohre, 1994).

The literature is mixed regarding the efficacy of the alcohol warning label. MacKinnon, Nohre, Cheong, Stacy, and Pentz (2001) examined the relationship between exposure to the alcohol warning label and consumption in adolescents. Exposure to the warning label does not reduce alcohol consumption, which suggests the label does not have a deterrent effect. Further, there is an exposure effect, meaning as they drank more, they were exposed to the warning more often and remembered it better than those who did not drink. This supports the growing body of evidence that the warning label on alcohol bottles does not reduce alcohol-related risk behaviors. But this does not address the efficacy of warnings about alcohol that are conveyed through television. Research in this area is more optimistic than that of printed alcohol warnings even though the literature has some mixed findings.

Snyder and Blood (1992) found that viewing alcohol advertisements lead to rating the products as more beneficial and less risky for drinkers but more so for non-drinkers. They also found that the warnings had no effect upon ratings of product risk and instead caused drinkers to rate the alcohol product as more beneficial, increasing their intent to drink. Snyder and Blood also found that alcohol advertisements hindered women's recall of the warnings. These are alarming results, and appear that warning labels are producing the opposite effect for which they were created. This study has spurred further research in which others have attempted to recreate these findings without success.

MacKinnon and Lapin (1998) attempted to replicate the findings obtained by Snyder and Blood (1992). Warnings in the MacKinnon and Lapin (1998) study did not produce a boomerang effect. Their study also failed to show that alcohol

advertisements distract alcohol warning advertisements like that found in Snyder and Blood (1992). Warnings were remembered, which means they were noticed and not overlooked, but the authors agreed with Snyder and Blood (1992) that exposure to warnings did not increase intent to avoid alcohol (MacKinnon & Lapin, 1998). There is some literature to suggest that exposure to warnings about alcohol decrease the high levels of confidence about the beliefs of alcohol benefits (Slater & Domenech, 1995).

Slater and Domenech (1995) suggest that warnings may be able to reduce the confidence in pro-alcohol beliefs and even positive responses to beer advertisements. In their analysis, the greater the number of warnings participants were exposed to, the lower the belief in benefits of alcohol. While these results produce a mixed picture of the overall efficacy of alcohol warnings in both the print and television medium, a clear picture is emerging about alcohol advertisements. Contrary to industry guidelines, alcohol advertisements are appealing to those under the legal age to consume alcohol (Snyder & Blood, 1992). If alcohol warnings are not producing the desired effects and alcohol advertisements are appealing to underage drinkers, then one possible way to combat underage drinking may be educating children about what they see.

Counterarguing Alcohol Advertisements

Austin and Johnson (1997) wanted to provide children with an additional weapon against the frequent alcohol commercials that current alcohol abuse prevention programs do not provide, namely, skills for critical viewing of TV. The most critical variables in the decision-making process are understanding of persuasive

intent, desirability, and perceived similarity (Austin and Johnson, 1997). They suggest that even if the beer commercial is seen as being unrealistic, children may still view themselves as being similar to those in the commercial because of their desire to fit into perceived social norms. The media literacy-training program can reduce not only expectancies but propensity toward drinking in children in the 3rd grade as well. Critical viewing training may create a logical link in the process of decision-making that did not exist before.

Effects of exposure to alcohol education in general and discussions of alcohol advertising in particular, lead to counterarguing beer advertisements more than those who do not take such classes (Slater, Rouner, Beauvais, et al., 1996). Women tend to counterargue more often in general, particularly to advertisements that contain sports content as well as those imbedded in sports programming (Slater et al., 1996; Slater et al., 1997). Men on the other hand, tend to respond more favorably to alcohol advertisements that contain sports content as well as those that are imbedded in sports programming (Slater et al., 1997). The literature suggests that discussion of advertisements and critical viewing experiences have special potential in influencing adolescent's responses to alcohol advertisements, and these educational experiences may even produce some long-term effects (Slater, et al., 1996). What most of the previous research has failed to examine is the perceived ages of the actors in alcohol advertisements. Determining the age that underage persons perceive actors in alcohol advertisements to be is an important variable to explore when assessing the impact of such advertisements.

Perceived Ages of Actors in Alcohol Advertisements

There is very little literature examining the perceived ages of actors in alcohol advertisements among adolescents or adults. Some literature has examined the perceived ages of actors in alcohol advertisements from the 1960s and compared them to the perceived ages of actors in advertisements during the 1990s. Ages from the alcohol advertisements dropped from 40 to 25 years with children in the sixth grade, while those in seventh grade showed a drop in perceived age from 38.5 to 23.9 years. Men tend to perceive the actors as being younger, but just barely a year younger than what women report. Overall, mean ages for the perceived age of actors in the 1960s advertisements were 39.2 and 24.4 for the 1990s advertisements; a difference of 14.8 years. However, as Durrant, Chapter, Bitter, and Macleod (1994) report, this study may not have utilized a representative sample, and the researchers may have had too much statistical power. Aside from this study, only one other was found to examine the perceived ages of actors in alcohol advertisements.

Slater, et al. (1996) report that of the four beer advertisements used, 39.4% reported that the youngest person was less than 21 years of age in at least 25% of those advertisements. A higher proportion of those who drank reported seeing an actor under the age of 21. Slater et al. (1996) note that the advertisements were *not* screened to ensure that the actors appeared youthful, thus producing a conservative yet strong finding. A limitation of the study is that they asked participants to estimate the age of the “youngest” actor in the advertisement, which may have predisposed them to report lower ages. Recommendations for future research included asking

participants to rate the ages of all actors in an advertisement, not merely the “youngest” one.

Most of the data on alcohol advertising and the effects of such advertising upon alcohol consumption are correlational in nature. Of the longitudinal data that exist, none examine the perceived ages of actors in the alcohol advertisements. Literature supports that idea that alcohol advertising does influence drinking patterns, but only moderately. Parallels between youth from different nations are as of yet unavailable, but it does not appear invalid to consider advertising as influencing children and young adults in general. No literature exists to suggest that youth from one nation react to alcohol advertising differently than youth from another. Virtually no attention has been focused on the perceived age of actors in alcohol advertisements either in the print or television media.

As a result, a need for more information about the age that youth and adults perceive actors to be in alcohol advertisements becomes more important. If alcohol companies are truly trying to shift brand preference and not influence minors, then their advertisements should not influence underage persons; which the literature suggests is not the case. If advertisements are not only having an impact upon the intentions of youth to consume alcohol, but additionally they perceive the actors as being underage, then results can be used to modify current alcohol advertising practices. Specifically, so underage persons will not identify with the actors, message of the advertisement, and subsequently not develop a propensity to consume alcohol.

This study examined the perceived ages of actors in alcohol advertisements. Only alcohol advertisements from magazines were utilized in this study due to the

abundance and convenience of administration during the study. It was expected that actors in advertisements with alcohol products would be perceived as being older than actors in the same advertisements experimentally manipulated to appear with soda products. Gender differences were also examined in this study.

Research Questions

Two research questions were tested in this study:

- (1) Are perceived ages of actors in alcohol advertisements influenced by the product in the advertisement?
- (2) Do gender differences exist in the perceived age of actors in alcohol advertisements?

Hypotheses

Two hypotheses were tested in this study:

- (1) Perceived age of actors in advertisements will be different for alcohol and soda pop products;
- (2) Men and women will perceive different ages for actors in advertisements with an alcohol product or a soda pop product.

CHAPTER 2

METHOD

Participants

A total of 195 participants were recruited from the Introduction to Psychology, Developmental Psychology, Foundations of Psychology, and Experimental Psychology classes at Emporia State University (ESU). Fifty-three men and 142 women were recruited for the study. A sign up sheet was placed on the bulletin board of the third floor of Visser Hall for students to sign up for participation. The participants' ages ranged from 17 to 49 years, with a mean age of 20.52 years and a standard deviation of 4.21. Of the 195 participants, 166 identified as Caucasian, 5 Hispanic/Latino, 12 African-American, 4 Asian/Pacific Islander, three Interracial, and five Other. Of the sample, 94.4% reported having ever consumed alcohol in their life. Participants were given one research point for their participation in the study to fulfill the research requirement for their Introduction to Psychology or Developmental Psychology classes. Students from the Foundations of Psychology and Experimental Psychology classes were given extra credit for their participation in the study.

Design

The purpose of the study was to examine adults' perceived age of actors in alcohol advertisements and what age group they think the advertisement was targeting. Advertisement condition and gender were the independent variables in this study. A convenience sample at ESU was implemented. From this sample, participants were randomly assigned to one of two conditions. The first was the original alcohol advertisement condition and the other was the experimentally

manipulated alcohol advertisement condition. The alcohol advertisement condition contained 97 participants consisting of 28 men and 69 women. The experimentally manipulated advertisement conditioned contained 98 participants consisting of 25 men and 73 women. Primary dependent variables were the perceived age of the actor(s) and the perceived ages of the target group. The appealing characteristics of the advertisement were interpreted as supporting the previous measures and used to shed additional light onto the problem.

Instrument

A three-page questionnaire was constructed to measure the perceived ages of the actors in the advertisements, perceived age range that the advertisement is targeting by rank order, as well as identify what aspects of the advertisements are appealing to the participants. All advertisements were downloaded from The Center of Alcohol Marketing and Youth (n.d.). Permission was granted from the organization to download the pictures and use them for this study (See Appendix A for permission letter). These pictures were then screened to eliminate celebrities, cartoons, or any advertisement that did not feature at least one person engaging in some kind of activity. The advertisements finally selected were those that had multiple actors engaging in some kind of activity.

Those advertisements that were finally selected were then experimentally manipulated using Microsoft Picture It! Publishing 2001. Photographs of soda bottles were taken with a Kodak DX 3500 digital camera. The advertisements were then incorporated into a Microsoft PowerPoint slide show for the participants to view. The

advertisements were also printed on the questionnaire for the participants to use as a reference while completing the study (Appendix B).

Procedure

Participants were randomly assigned to the alcohol product or soda product advertisement condition. Participants were administered the questionnaire in groups of ten over 30 minutes. Groups of participants were run during the same time of day from 1 to 5 p.m. All participants were asked not to divulge any information about the study to their classmates. Participants were given, and read aloud, the informed consent (Appendix A), which they then signed and hand back to the experimenter. Participants were given the questionnaire (Appendix B) and instructed to examine the advertisement on the projector screen and complete the questionnaire. Subject characteristics were included in the questionnaire for descriptive and control purposes. Only one advertisement from each condition was shown at a time to each group of participants. Participants were asked not to flip through the questionnaire if they completed a page earlier than the rest of the group. Participants were allowed to take as much time to complete the questionnaire and examine the advertisement as needed. After the participants had completed their questionnaire, they handed them back to the experimenter, who in turn, handed each of the participants a research participation slip and offered them a debriefing form (Appendix C). Each participant was thanked for their time and help. Before leaving the room, the experimenter asked the participants not to mention the study or their involvement in it to any of their friends or classmates.

CHAPTER 3

RESULTS

Primary Analyses

A 2 x 2 Analysis of Variance with advertisement condition and gender as the independent variables, and average perceived age of actor as the dependent variable was calculated. There was no statistically significant interaction effect, but a statistically significant main effect for gender was found. $F(1, 195) = 4.50, p = .03$. The effect size for the main effect of gender was .02, with the observed power being .56. Women perceived the actors to be younger ($M = 23.51, SD = 2.02$) than men did ($M = 24.21, SD = 2.05$). The main effect of advertisement condition was not statistically significant $F(1, 195) = .13, p = .72$. The first hypothesis was not supported. However, the second hypothesis was supported. The researcher then examined the average age of the actors for each advertisement in both conditions.

The average age for each group of actors in both conditions was above the legal drinking age expect for the third advertisement (Table 1). Similarly, the mean perceived ages of all the actors in both conditions were over the legal drinking age with exception to the third advertisement (Table 2). There was a significant advertisement condition effect for the third advertisement with the soda pop condition being rated younger than the alcohol $F(1,194) = 12.73, p = .001, \eta^2 = .06$. The data indicate that the only actor in either condition perceived as underage was the woman depicted at a concert (Figure 1). However, after examining the perceived ages the advertisements are targeting, it was clear that the participants believed the

Table 1

Means and Standard Deviations for Ages of Actors by Group

Advertisement	Advertisement Condition			
	<u>Alcohol</u>		<u>Soda Pop</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	23.57	2.95	23.44	3.27
2	23.92	2.30	23.91	2.31
3	20.82	2.05	19.53	2.15
4	24.58	2.49	24.69	2.93

Table 2

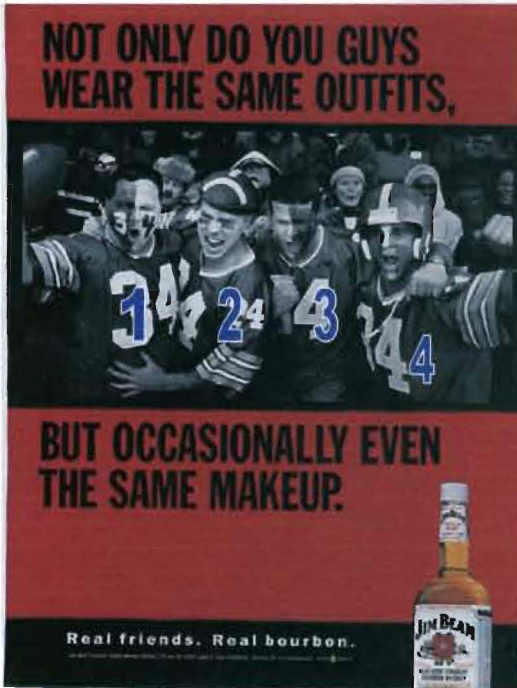
Means and Standard Deviations of Actors by Advertisement

<u>Advertisement 1</u>	<u>Alcohol</u>		<u>Soda Pop</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Actor 1	25.50	4.37	25.26	4.20
Actor 2	23.08	3.23	22.73	3.18
Actor 3	23.05	2.93	22.89	3.20
Actor 4	22.65	2.93	22.89	4.15
 <u>Advertisement 2</u>				
Actor 1	24.46	2.87	24.66	3.07
Actor 2	24.08	2.83	24.48	3.12
Actor 3	22.90	2.26	22.48	2.15
Actor 4	23.85	2.73	23.81	2.66
Actor 5	24.29	2.85	24.10	2.67
 <u>Advertisement 3</u>				
Actor 1	20.82	2.05	19.53	2.15
 <u>Advertisement 4</u>				
Actor 1	25.45	3.07	25.75	3.71
Actor 2	23.89	2.72	24.09	3.41
Actor 3	24.11	2.72	24.16	2.83
Actor 4	24.87	2.71	24.78	2.95

Figure 1

Alcohol Advertisements

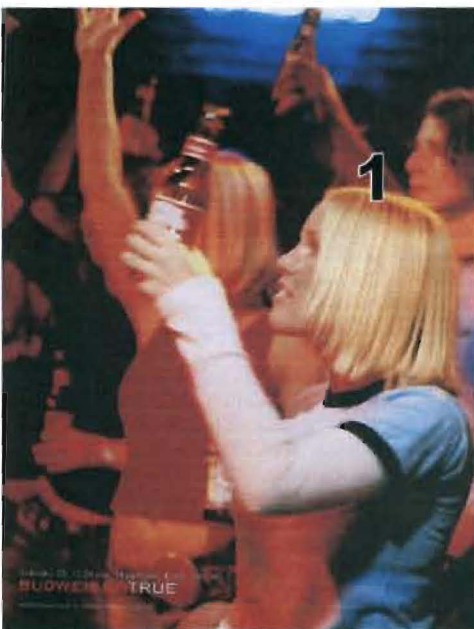
Advertisement 1



Advertisement 2



Advertisement 3

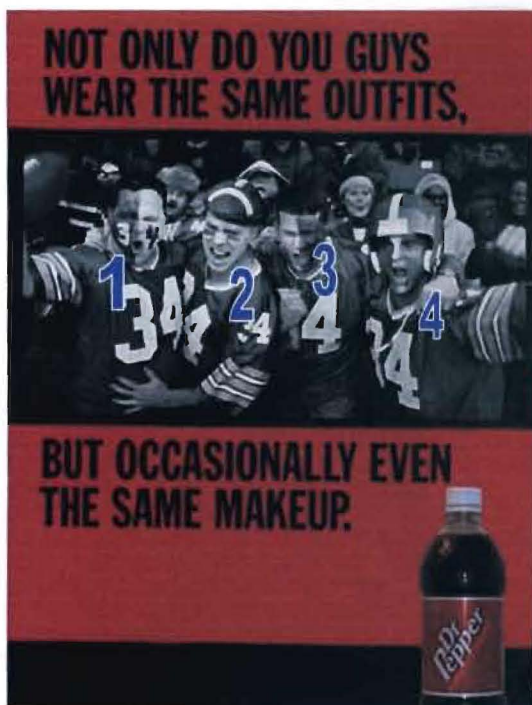


Advertisement 4

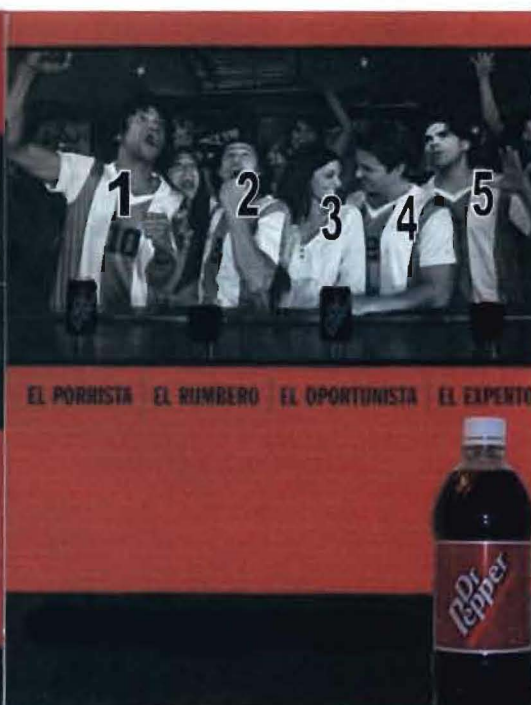


Experimentally Manipulated Advertisements

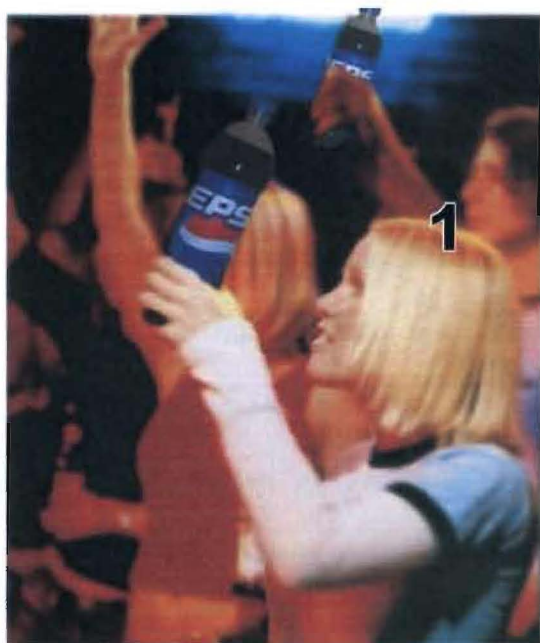
Advertisement 1



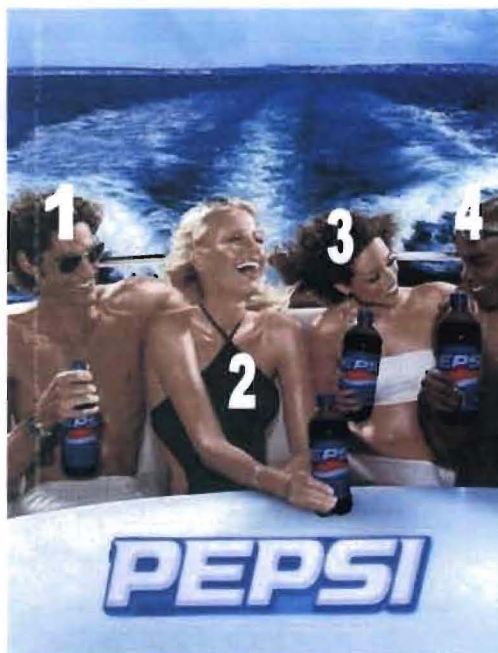
Advertisement 2



Advertisement 3



Advertisement 4



advertisements appealed to underage people. Regardless of advertisement condition, for every advertisement, the perceived minimum target age had a mean below 21-years-old (Table 3). This suggests that people perceive these advertisements, even those with alcohol cues, as targeting young people who are not yet able to legally purchase alcohol. This data provided the rationale for determining if there were significant differences in the perceived ages between the actors in the two advertisement conditions and minimum target ages of the advertisements.

Exploratory Analyses

Three multivariate analysis of variances (MANOVA) were used to determine significance between the conditions. The MANOVA for the first advertisement produced a significant Wilks' $\Lambda = .02$, $F = 2.79$, $p = .03$ for the main effect of gender. Follow-up ANOVAs revealed that the significance came from both the second actor $F(1,194) = 9.68$, $p = .002$ and the third $F(1,194) = 5.69$, $p = .02$. The MANOVA for the second advertisement produced a significant Wilks' $\Lambda = .03$, $F = 2.44$, $p = .04$ for the main effect of gender as well. Follow up ANOVAs' yielded statistical significance for the first actor $F(1,195) = 6.41$, $p = .01$, $\eta^2 = .03$. The third MANOVA did not produce a significant Wilks' Λ for the interaction or main effects. The researcher then investigated the differences in the perceived minimum target ages between the two advertisement conditions.

Differences in perceived minimum target age between the two conditions for the first advertisement were found to be statistically significant, $F(1,195) = 31.90$, $p = .001$, $\eta^2 = .14$. This trend was true for all of the advertisements. The second advertisement produced $F(1,195) = 57.33$, $p = .007$, $\eta^2 = .04$; third

Table 3

Minimum Target Age by Advertisement Condition

Advertisement	Advertisement Condition			
	<u>Alcohol</u>		<u>Soda Pop</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	18.79	2.53	16.52	3.06
2	19.84	2.52	18.76	2.99
3	18.54	2.05	15.28	3.01
4	20.47	3.39	18.82	4.25

advertisement $F(1,194) = 91.11, p = .001, \eta^2 = .32$; and fourth advertisement $F(1,194) = 12.27, p = .001, \eta^2 = .06$ (Table 4). The soda cues significantly decreased the reported age of the target audience for all advertisements. Participants viewing the manipulated soda advertisement felt the advertisements targeted younger people than participants viewing the original alcohol advertisements.

The researcher then examined the perceived appeal to the target audience as well as the participants themselves. Paired t tests were used to determine any significant differences in participant's ratings of advertisement appeal. Participants consistently rated the advertisement appeal significantly higher to the target audience than to themselves (Table 5). This trend was found for both advertisement conditions. This led the researcher to explore the possibility of different ratings on appeal between the advertisement conditions. Statistically significant differences of appeal to the target audience were found for all advertisements with exception to the first advertisement $t(193) = .76, p = .44$. Independent t tests were calculated for the three advertisements. The second advertisement produced a t score of $t(193) = 2.30, p = .02$. The third and fourth advertisements produced scores of $t(193) = 3.30, p = .001$, and $t(193) = 2.45, p = .01$ respectively (Table 6). For three out of four of the advertisements in this particular analysis, the perceived appeal to the target audience was higher for the alcohol condition than for the soda pop condition.

Table 4

Means and Standard Deviations for Minimum Target Audience for All Advertisements

Advertisement	Advertisement Condition			
	<u>Alcohol</u>		<u>Soda Pop</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	18.79	2.53	16.52	3.06
2	19.84	2.53	18.77	3.00
3	18.55	2.06	15.54	2.33
4	20.74	2.73	19.13	3.60

Table 5

t Values for Appeal Ratings of Advertisements by Appeal to Self or Target Audience

Advertisement	Alcohol	Soda Pop
1		
Appeal to Self vs Target Audience	$t(96) = -9.86^*$	$t(97) = -9.11^*$
2		
Appeal to Self vs Target Audience	$t(96) = -10.53^*$	$t(97) = -10.96^*$
3		
Appeal to Self vs Target Audience	$t(96) = -6.93^*$	$t(97) = -7.33^*$
4		
Appeal to Self vs Target Audience	$t(96) = -6.98^*$	$t(97) = -5.16^*$

* $p < .001$

Table 6

Means and Standard Deviations for Target Audience by Condition

Advertisement	Appeal to Target Audience by Condition			
	<u>Alcohol</u>		<u>Soda Pop</u>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	5.08	1.05	4.97	1.01
2	4.93	1.24	4.52	1.23
3	5.33	1.13	4.72	1.41
4	5.74	1.06	5.37	1.07

CHAPTER 4

DISCUSSION

The data from this study suggest that women relative to men tend to view actors in both advertisement conditions as being younger. It appears that people do not attend to product cues when judging the age of the actors. This study was undertaken with the findings and recommendation of Slater et al. (1996) in mind. Their recommendation was to ask participants to report the age of each actor in an advertisement, not just the “youngest” actor. The results of this study contradict the findings by Slater et al. (1996) and Durrant et al. (1994). Slater et al. (1996) reported a significant percentage of their sample perceiving actors in alcohol advertisements as being below the age of 21. The sample in this study perceived the actors to be above the age of 21 with exception to the third advertisement. It should be noted that the third advertisement was the only advertisement to contain just one female actor in the foreground.

These results contradict those reported by Durrant et al. (1994) in that women reported higher ages for the actors than men. In the Durrant et al. (1994) study, the mean age that women reported was over a year higher than what men reported. Because the mean age of the actors in this study were not significantly different between the two conditions, this could mean that people pay more attention to how the actor looks as opposed to what product is being sold. However, results for the third advertisement suggest that people do pay attention to product cues. Participants in both conditions perceived the actor to be under the age of 21 yet significantly different from each other. It appears that the alcohol companies are not meeting their

own standards for advertising. The guidelines set forth in their own advertising codes prohibit using actors who might appear to be under 21. Many of the advertising codes use vague terminology such as “reasonable” when describing how an actor should look. However, even by their standards, the actor in the third advertisement does not appear to be 21 years of age. While alcohol companies may claim to be striving to appeal to of-age audiences and use models appearing to be at least 21 as per their regulations, it seems that participants in this study believe at least one of their advertisements to be targeting underage youth by using of-age models with a youthful appearance. Both groups of participants perceived that actor’s age to be below the legal drinking age. A frequency analysis of actor age for the third advertisement revealed that 58.5% of all participants thought the actor was below the age of 21. When examined separately, 42.3% of the alcohol condition and 74.5% of the soda pop condition believed the actor to be below 21. Thus, the product cues did appear to influence the participants’ perception of the actor’s age for the third advertisement only; but not for all of the advertisements taken together.

Even though it appears that the advertisements utilize actors that appear to be at least 21, the data also suggest that people believe the advertisements are targeting underage youth. The data suggest that people place some measure of emphasis on product cues when judging the age of the target audience in an advertisement. When asked to give the perceived age range of the target audience, participants consistently reported the minimum age to be below that of 21 years regardless of product cue although the age dropped with the soda cue. This could be interpreted as alcohol companies using actors who look older than 21 (plus or minus), but incorporating

other aspects that are appealing specifically to underage viewers. In examining the perceived minimum target age, the third advertisement produced the largest F value. This further supports the previous point about what aspects of advertisements are attended to. The data suggest that product cues have some influence in the perceived minimum age of the target audience. Because the mean age of the minimum target audience was below the legal drinking age for all advertisements, it is plausible that there are other aspects of these advertisements that are geared toward those who are under 21. However, determining what aspects are considered appealing to, or by, an underage viewer goes beyond the scope of this study.

An unanticipated finding that emerged from the analysis was that the participants consistently rated the advertisements as being more appealing to the perceived target audience than to themselves. While participants rated the appeal higher for the target audience, appeal both to themselves and target audience was moderately appealing or higher. This was true for all advertisements and both advertisement conditions. Participants in the alcohol advertisement condition may have responded in a way that they thought was socially appropriate. It could be that they rated the appeal being higher to others and not themselves so as to not appear to enjoy alcohol “too much” or in excess. While the current study contradicts the literature on the topic, there are some limitations of the study that need to be addressed.

One limitation of the study is that of the sample. As mentioned before, men accounted for 27.18% of the sample. However, this is a close approximation to the student population at Emporia State University, with two-thirds being women.

Although the gender distributions for the two advertisement conditions were nearly identical to each other and the overall sample, ideally the genders would be more equally represented. The researcher was limited to volunteers signing up on a bulletin board and was not able to recruit participants from the general campus. Perhaps utilizing flyers around campus would produce a better representation of the genders. Based upon the present findings and what is reported in the literature, the current sample size appears to be appropriate.

Another limitation of this sample are the characteristics of those who participated. The results presented here are likely limited to college students at smaller, Midwestern schools that are similar to Emporia State University. If possible, other colleges and universities provide data from their student body to make the results of such an undertaking more generalizable. The age range of the participants was restricted as well. Obtaining a representative sample of the general population could provide different results or a sample from a different type of institution.

Another possible limitation of the study was the ability of the participants to recognize the advertisements. The advertisements were fairly recent in respect to the study. Some students may have recognized the advertisements in the soda condition as the original alcohol advertisement and rated the age of actors as being higher than had they not recognized the advertisement. Some participants verbally reported recognizing the advertisements in the soda condition and asked how to respond. Recognition of a phony advertisement could have confounded the results, but there were so few participants who reported recognizing the manipulated advertisements that this threat is minimal.

One other limitation is that the study only used print advertisements. No television advertisements were used in this study. Historically, print advertisements depict distilled liquor much more than beer. With television, beer is the alcohol product that is predominately shown. Since the third advertisement was the only one to have a perceived age below 21, and a beer advertisement, future research may want to focus on beer advertisements. It was beyond the capabilities of the researcher to obtain televised advertisements for either distilled liquor or beer. A suggestion would be to use still frames from a television advertisement or the actual televised advertisement itself.

A strength of this study was the advertisements themselves. The advertisements used here were screened for sexual cues, celebrity status, number of actors, brand of alcohol, and gender. In short, the researcher used advertisements that contained limited sexual cues, more than one actor when possible, and from a variety of brewers. The most difficult obstacle in screening the advertisements was finding those that would lend themselves to digital manipulation. Some advertisements were dropped from the final questionnaire because the researcher was simply unable to replace the alcohol beverage or cue with a soda pop product and still maintain a credible advertisement.

Future research should examine advertisements that are not screened for the conditions mentioned above with the exception of celebrity depictions. This could give researchers a better idea of what people think the age of the actor(s) in the advertisements are. Finally, one could use the anti-drinking or “moderation” print advertisements that some alcohol companies provide upon request. The ability to

manipulate the advertisement would be much easier than manipulating a televised advertisement and, if a significant difference in perceived age were found, this would lend more credibility to the current trend in the literature.

In conclusion, this study found no significant difference in the perceived age of actors between the advertisement conditions with exception to the third advertisement. However, women did perceive the actors to be significantly younger than men in the study. The product cues appear to significantly influence the minimum target age of an advertisement. Consistently, participants rated the advertisements as being more appealing to the target audience than to themselves. However, the appeal ratings for the target audience were more than moderately appealing. Taken further, all of the advertisements, regardless of condition, had a mean minimum target age that was under 21. What all this means is that while the selected advertisements portrayed actors in a manner that made them appear to be over 21, participants thought the advertisements were targeting underage people as well. While alcohol companies claim to use actors who are, and appear to be, over 21 years of age, their advertisements are seen as more than moderately appealing to underage youth. The present findings call into question what segments of the general population are being targeted by the advertisements and what methods are being used to appeal to those people.

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Appendix A

Participant Informed Consent Form

Read this consent form. If you have any questions ask the experimenter and s/he will answer the question.

You are invited to participate in a study investigating the relationship between advertisements and age of actors in advertisements. You will be asked to complete a questionnaire while viewing several advertisements. After viewing the advertisements you will complete the provided questionnaire and upon completion will return the questionnaire back to the experimenter. This study should take approximately 10 to 15 minutes of your time.

Information obtained in this study will be identified only by code number. Your name will be used only to indicate that you participated in the study and received a research point or extra credit for participating.

Your participation in this study is completely voluntary. Should you wish to terminate your participation, you are welcome to do so at any point in the study. There is no risk or discomfort involved in completing the study.

If you have any questions or comments about this study, feel free to ask the experimenter. If you have any additional questions, please contact Jason Eberle, 341-5803.

Thank you for your participation.

I, _____, have read the above information and have decided to participate.
(please print name)

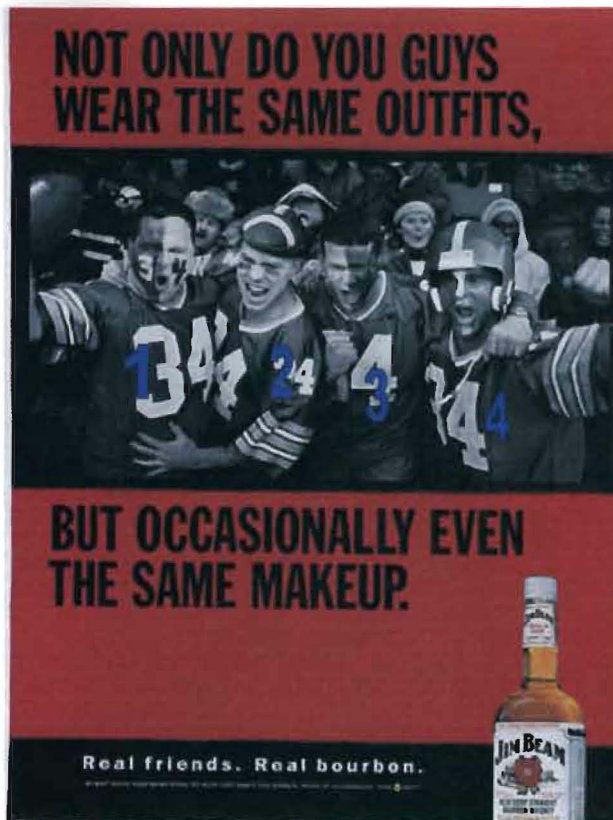
I understand that my participation is voluntary and that I may withdraw at any time without prejudice after signing this form should I choose to discontinue participation in this study.

(signature of participant)

(date)

THIS PROJECT HAS BEEN REVIEWED BY THE EMPORIA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD FOR TREATMENT OF HUMAN SUBJECTS FOR
THE PROTECTION OF HUMAN SUBJECTS.

Appendix B



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____ #2 _____ #3 _____ #4 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____ (min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

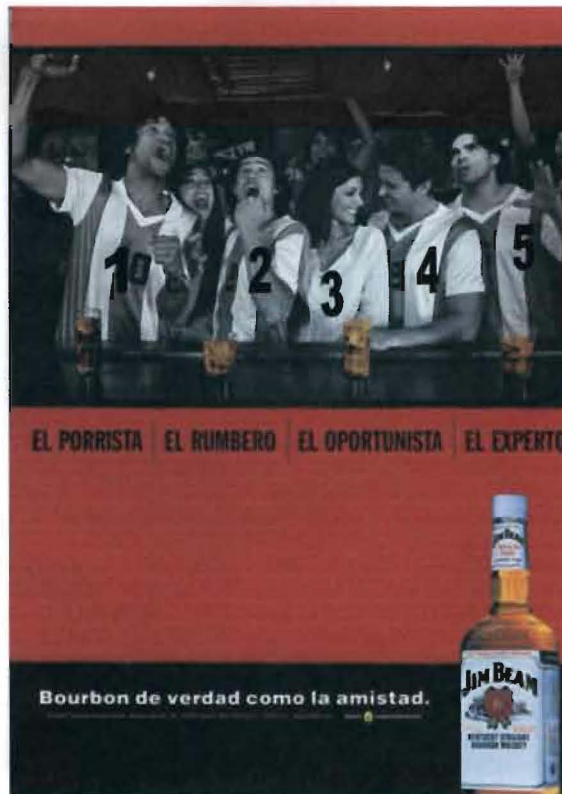
1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 ____ #2 ____ #3 ____ #4 ____ #5 ____

What age group (in years) do you think the advertisement is targeting? _____ to _____ (min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

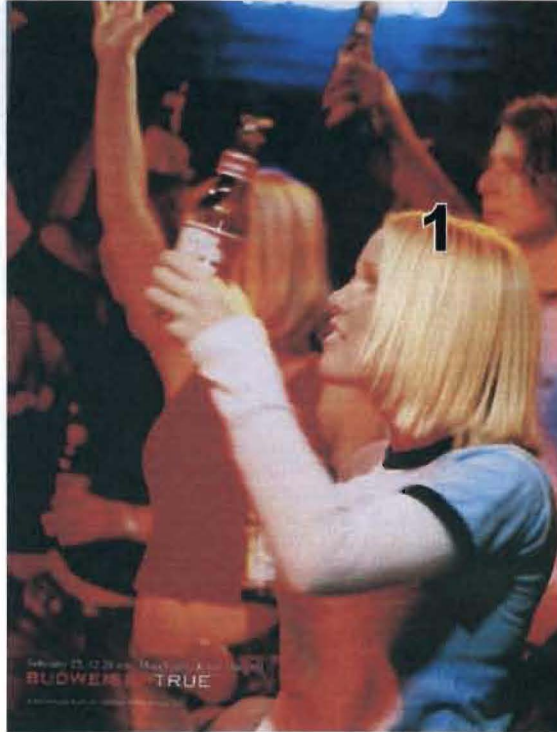
1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____

(min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____ #2 _____ #3 _____ #4 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____

(min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N

Advertisement Questionnaire

Please fill out the information as completely as possible. Your time and participation are greatly appreciated!

Age: _____

Sex: M F (circle one)

Class ranking (circle one): Freshman Sophomore Junior Senior
Graduate

Race: Caucasian _____ Hispanic/Latino _____ African-American _____ Asian/Pacific
Islander _____ Native American _____ Interracial _____ Other _____

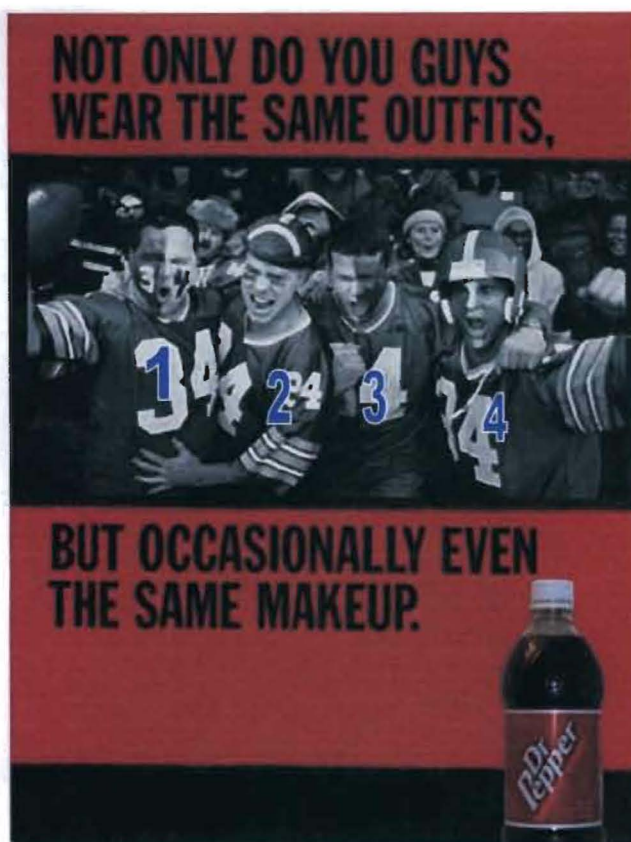
Have you ever consumed alcohol? (circle one) Y N

When you party, how many drinks do you usually have? _____

How many nights a week do you usually consumed alcohol? _____

If you *do* drink, please give some reasons why you choose to drink.

If you *do not* drink, please give some reasons why you choose not to drink.



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____ #2 _____ #3 _____ #4 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____ (min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____ #2 _____ #3 _____ #4 _____ #5 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____

(min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

1 2 3 4 5 6 7

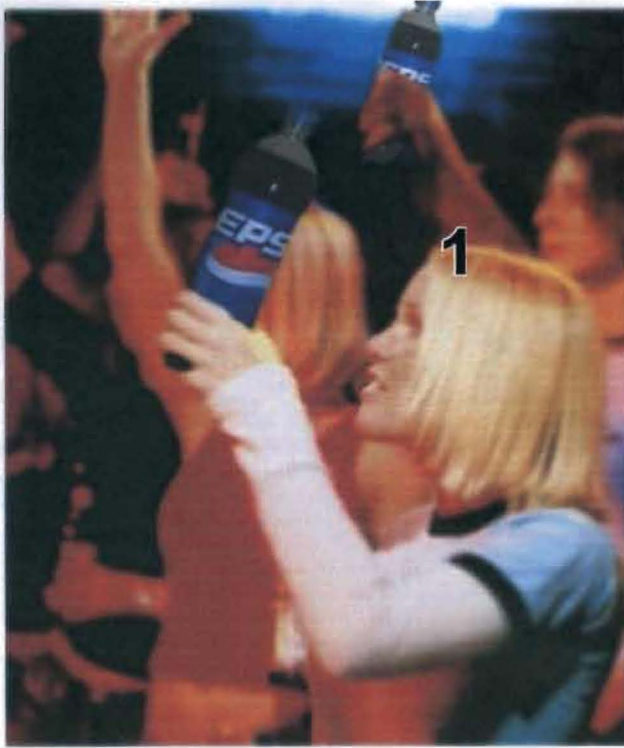
Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)

Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____

(min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

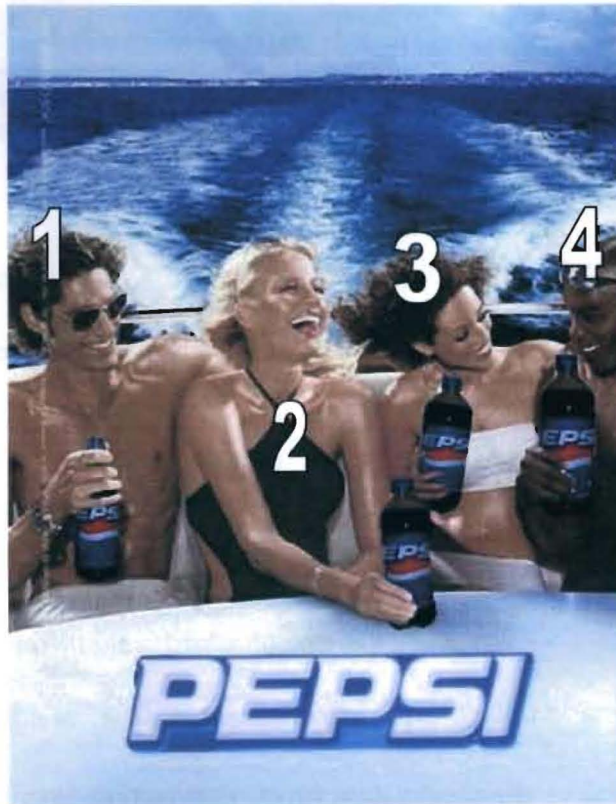
1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N



Do you recognize this advertisement? (circle one) Y N

Please estimate the age of the actors: #1 _____ #2 _____ #3 _____ #4 _____

What age group (in years) do you think the advertisement is targeting? _____ to _____ (min.)

(max.)

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to you:

1 2 3 4 5 6 7

Using numbers 1-7 (1 being *not appealing at all*, 4 *moderately appealing*, and 7 being *very appealing*) indicate how appealing the advertisement is to the target audience:

1 2 3 4 5 6 7

Do you feel like drinking the beverage after viewing this advertisement? (circle one)
Y N

If no, would you consider using the product in the future after viewing this advertisement? (circle one) Y N

Advertisement Questionnaire

Please fill out the information as completely as possible. Your time and participation are greatly appreciated!

Age: _____

Sex: M F (circle one)

Class ranking (circle one): Freshman Sophomore Junior Senior
Graduate

Race: Caucasian____ Hispanic/Latino____ African-American____ Asian/Pacific
Islander____ Native American____ Interracial____ Other____

Have you ever consumed alcohol? (circle one) Y N

When you party, how many drinks do you usually have? _____

How many nights a week do you usually consume alcohol? _____

If you *do* drink, please give some reasons why you choose to drink.

If you *do not* drink, please give some reasons why you choose not to drink.

Appendix C

Debriefing

Thank you for volunteering to participate in this study. The purpose of this study was to examine the perceived ages of actors in alcohol advertisements. The experiment contained two groups of participants. Each group viewed several advertisements for alcoholic beverages; however, one group viewed advertisements that had the alcohol bottles taken out and replaced with soda pop bottles. It is the belief that the product in the advertisement serves as a cue to the viewer about the age of the actor(s) in the advertisement. Your participation in this experiment is greatly appreciated. If you have any questions, comments, or want a summary of the results of this study, please contact either myself or my faculty research sponsor at:

Student Researcher: Jason Eberle

(620) 341-5803

Faculty Sponsor: Dr. Michael Leftwich

(620) 341-5317

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Jason A. Eberle
Signature of Author

8/6/04
Date

Perceived Age of Actors In Alcohol
Advertisements
Title of Thesis

Doug Cooper
Signature of Graduate Office Staff Member

8-23-04
Date Received

Original