

## Alcohol Advertising: What Makes It Attractive to Youth?

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*This paper investigates the affective responses of youth toward specific elements featured in television alcohol advertisements (i.e., people character, animal character, music, story, and humor). It also examines the associations between advertising likeability and its potential influence. Respondents were 253 children and adolescents in California (47% male; aged 10–17). Data were collected using self-administered questionnaires in group settings. Respondents were shown a stimulus tape containing television advertisements for beer and soft drinks. The tape was stopped at the end of each advertisement to allow respondents to answer questions about that advertisement before viewing the next. Perceived likeability of beer advertisements is a function of the positive affective responses evoked by the specific elements featured in the advertisements. Liking of specific elements featured in beer advertisements significantly contributed to the overall likeability of these advertisements and subsequently to advertising effectiveness indicated by purchase intent of product and brand promoted by these advertisements. Advertisements that focus primarily on product qualities or send a message of legal drinking age were rated less favorably and evoked less desire to purchase the product. Implications for countering the effects of alcohol advertising on young people are discussed.*

A growing body of research indicates a positive association between alcohol advertising and alcohol use among young people. For example, Grube and Wallack (1994) showed that greater recall of alcohol advertising is significantly related to more positive beliefs about alcohol use, which in turn are associated with greater future intentions to drink alcohol among children and adolescents. Similarly, Unger, Schuster, Zogg, Dent, and Stacy (2003) demonstrated a positive association between recall of alcohol brands and current alcohol consumption among adolescents. Further, exposure to alcohol advertising directly and positively predicts alcohol consumption for students of middle and high school ages (Adlaf & Kohn, 1989; Collins, Schell, Ellickson, & McCaffrey, 2003). In addition, affective responses toward beer advertising are positively related to current and later alcohol use among children and adolescents (Austin & Knaus, 2000; Austin & Nach-Ferguson, 1995; Casswell & Zhang, 1998; Connolly, Casswell, Zhang, & Silva, 1994; Wyllie, Zhang, & Casswell, 1998a, 1998b). The relationships between responses toward alcohol advertising and

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drinking behaviors, however, are complex. It is probable that alcohol advertising may predispose young people to drinking. Conversely, being predisposed to drinking may make young people respond more favorably toward alcohol advertisements. Given the potential role of alcohol advertising in alcohol use among young people, this study investigates how alcohol advertisements are received by children and adolescents, and what aspects of alcohol advertisements make them more or less appealing to these young people.

Children are aware of alcohol advertisements and this awareness increases with age (Aitken, 1989; Aitken, Leathar, & Scott, 1988). Understanding of the complexity of alcohol advertisements also increases with age (Aitken, 1989; Aitken et al., 1988; Atkin & Block, 1983; Austin & Knaus, 2000; Waiters, Treno, & Grube, 2001). Specifically, Aitken and colleagues (1988) found that descriptions of advertisements and the imagery portrayed in advertisements become more differentiated for youth of 10 to 14. In addition, young children tend to respond moralistically and literally to alcohol advertisements because of the products promoted, whereas older youth are able to comprehend the more subtle implications suggested by the images shown as most adults do. Austin and Knaus (2000) further demonstrated that youths' appreciation of portrayals in alcohol advertising is positively related to their desire to emulate the people and lifestyle featured in the advertisements.

Youth also have a keen awareness of the images and icons presented in alcohol advertisements. For example, in one survey of fifth- and sixth-grade school children, in addition to a general awareness of alcohol advertising, 60% of them could correctly identify the brand of beer being promoted from a still photograph featuring Spuds McKenzie (Wallack, Cassady, & Grube, 1990). In addition, 88% of the children in the same survey correctly matched the advertising slogan "Spuds McKenzie, the original party animal" with Budweiser. Similarly, among 9- to 11-year-old children, the Budweiser Frogs had a higher slogan recall than Frosted Flakes' Tony the Tiger, the Forest Service's Smokey the Bear, and the Mighty Morphin Power Rangers in the television animation programs (Leiber, 1996). More importantly, 80% of the children knew that the frogs were selling Budweiser beer.

As to what youth like about alcohol advertisements, Waiters and colleagues (2001) found that children and adolescents respond positively to animals, humor, and musical elements featured in television beer advertisements. Elementary school children were particularly fond of the animal characters. Specifically, young girls were attracted to animals' cuteness, whereas boys were attracted to animals' actions or voices. In addition, advertisements featuring celebrities are rated significantly more interesting, effective, and important, and stronger than those with noncelebrity endorsers (Atkin & Block, 1983). In general, children of all ages enjoy watching humorous commercials for alcoholic beverages (Aitken, 1989; Aitken et al., 1988; Waiters et al., 2001). Understanding what aspects of alcohol advertisements appeal to youth and whether they are associated with advertising influence would be instrumental in designing interventions to counter the influences of alcohol advertising on young people.

Despite the accumulating research on impacts of alcohol advertising content on youth, there is a need to quantitatively model how the assumed processes involved operate in concert to influence youth drinking. Most of the past research on appealing alcohol advertising is limited in its scope by relying on either descriptive or qualitative data analyses and, accordingly, provides limited understanding of advertising influences. This study goes beyond previous research by quantitatively examining

youth's affective responses to the various elements featured in alcohol advertisements (e.g., music, animal characters, people characters, storylines). In addition, by employing a structural equations modeling method this study models the processes by which the various features of alcohol advertisements ultimately influence the overall advertising likeability and advertising effectiveness.

## Methods

### *Sampling*

Students from two public schools in California where the student population reflected the state's ethnic diversity were invited to participate in this study. The two participating schools were a high school and a K-8 school. A random sample of students in grades 9-11 from the high school ( $N = 174$ ) and all the students in grades 5-8 from the K-8 school ( $N = 259$ ) were invited to participate. Parents of these students were contacted by mail for consent purposes, and written consents were obtained. In total, 89 students from grades 9-11 participated in the study, for a response rate of 51%, and 164 from grades 5-8 participated in the study, for a response rate of 63%.

### *Stimulus Tapes*

Television advertisements were taped from four major network channels (NBC, CBS, ABC, and FOX). Taping lasted for 10 weeks during February-April 1999. Prime-time weeknight programs were taped on two randomly selected nights per week, and all weekend daytime sports events were taped. In total, 66 unique (unduplicated) alcohol and 45 unique soft drink advertisements were captured. The alcohol advertisements were predominantly for beer ( $N = 61$ , 92%). Only 5 of them focused on aspects of the product (i.e., product advertisement) as opposed to user's lifestyle (i.e., image advertisement). The content of the advertisements was examined and the elements such as use of humor, popular music, sex appeal, ethnic diversity, lifestyle, and product orientation, and inclusion of celebrities or animals were coded. Nineteen advertisements (15 beer and 4 soft drink) were selected to represent the diverse qualities of the advertisements. One malt liquor advertisement (St. Ides) was added as the twentieth, although it was not in our taping. This advertisement was added due to an increasing concern with the alcohol industry's use of hip-hop/rap music to promote their products. These 20 advertisements were then split into 2 groups by beverage type (8 alcohol and 2 soft drink advertisements in each group) and transferred onto stimulus tapes, A and B, respectively. To avoid the potential bias that may result from the order of presentation, each set of advertisements was recorded in two different orders, thus leading to four sets of stimulus tapes: 2 sets of advertisements (i.e., Tape A & B) with two different orders. The respondents were randomly assigned to watch 1 of the 4 tapes. Although data were collected for both alcohol and soft drink advertisements, this paper focuses only on alcohol advertisements. Table 1 provides a brief description of the 16 alcohol advertisements on the stimulus tapes.

**Table 1.** Brief descriptions of the beer advertisements on stimulus tapes

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- A1. Bud Light–*The Mouse*  
A young man spies on an attractive female neighbor who is holding a six-pack of Bud Light. He sling-shoots his trained mouse, Willy, into the woman’s apartment to scare her to take shelter in his apartment, with the six-pack.
- A2. Foster’s–*Remote Control*  
“How to speak Australian” flashes on the screen. Then, a man at one end of a bar counter hits another man sitting next to the TV in the head with a boomerang to get him to change the TV channel as the narration says, “Australian for remote control.”
- A3. Busch–*NASCAR*  
Car racing sponsored by the Busch company includes pictures from the race with the brand name and logo displayed prominently.
- A4. Anheuser Busch–*A Legacy of Quality*  
Narration along with old style photos of wheat plants and the beer-making process illustrates the beer-making with a legacy of quality of the Anheuser Busch brewery.
- A5. Michelob Light–*Twins*  
Two men try to pick up identical twins at a bar. The twin described as the good-looking one by the men is drinking Michelob beer and the one described as the ugly one is not.
- A6. Coors–*21 Means 21*  
Comedian David Spade is in a liquor store, harassing two young male customers about needing proof of age in order to buy beer. The two guys ignore him, show their IDs at the checkout counter, and walk out of the store with beers.
- A7. Heineken–*The Weasel*  
A man brings a six-pack of “inferior” beer to a party and then takes two bottles of Heineken beer from the refrigerator to impress a pretty girl.
- A8. Budweiser–*The Dalmatians*  
An elderly woman brings two Dalmatian puppies to a firehouse for adoption. Fire fighters pick one and leave the other. When the two puppies part, the one that is adopted by the firehouse sticks his tongue out at the other one. Two years later, the two Dalmatians meet again—one is sitting on a fire truck and the other on a beer truck pulled by the Clydesdale horses. As the trucks pass each other, the Dalmatian sitting on the beer truck sticks his tongue out at the one on the fire truck.
- B1. Guinness–*The Train*  
A man and woman share a train cabin. The man opens a can of Guinness beer and the woman looks at him. The screen shows the sepia colors and foam of beer. As the train enters a tunnel, the screen turns dark and flashes, “What sounds do you hear in the dark?”
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(Continued)

**Table 1.** Continued

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B2.	<i>Busch–The Mountains</i> Outdoor shots of canoeing, biking, hiking, and beer pouring into a glass are shown, followed by the words, “Stay Pure” and “Refreshing as a mountain stream.”
B3.	<i>Miller High Life–Real Men</i> A man watches his neighbor struggling to maneuver a car and boat trailer. The male narration says “real men” know how to handle such a situation. The screen shows that the onlooker holds a Miller High Life bottle.
B4.	<i>Coors Light–Beer Man</i> A stadium beer salesman in a locker room acts as if he is a football player preparing for a game. He then walks confidently into the stadium.
B5.	<i>Beck’s–German Comedian</i> A German comedian tells jokes, but no one in the audience laughs. The narration says, “Beer is what Germans do best.”
B6.	<i>St. Ides–House Party</i> With rap music playing in the background, a Black man drives a Mercedes to a liquor store, takes St. Ides from the refrigerator, and brings it back to a party.
B7.	<i>Budweiser–Ferret Replaces Lizards</i> Lizards, Louie and Frank, are being replaced by the ferret as the Budweiser mascot. The ferret is introduced and enters mimicking a rock star. While Louie complains, Frank waves a cigarette lighter in concert fashion.
B8.	<i>Miller Lite–The Wild Pitcher</i> Former professional baseball pitchers, Lee Smith and Mitch “Wild Thing” Williams, play a dart game in a bar room. They debate the virtue of Miller Lite cans versus bottles while Mitch Williams collects his errant darts from various locations in the room.

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### ***Data Collection***

The data were collected in group settings after school using anonymous self-administered questionnaires. In all, 8 survey sessions at the K–8 school and 4 at the high school were conducted. Respondents within each grade level were randomly assigned to the survey sessions. Each session was conducted by trained research staff. During the session, participants were shown the stimulus tape, and the tape was stopped at the end of each advertisement to allow participants to answer questions about that advertisement before viewing the next. After finishing all 10 advertisements, participants answered questions about alcohol-related beliefs, behaviors, and socio-demographic information. The questionnaire, on average, took 45–60 minutes to complete.

### ***Measures***

#### ***Affective Responses to Advertisements***

Immediately after viewing each advertisement, respondents were asked to rate how much they liked the elements of music, people characters, animal characters, and story of each advertisement on a 4-point scale (1 [dislike a lot]–4[like a lot]). Respondents were allowed to answer either “do not remember” or “does not apply” if they

could not remember or thought there was no such element in the advertisement. These responses were given a code representing neutral standing in the data analysis. "Humor" was the fifth element and was measured by asking the respondents to indicate how much they agreed, on a 4-point scale (1 [disagree strongly]–4 [agreed strongly]), that this advertisement was "funny." Respondents also were asked to indicate on a 4-point scale (1 [dislike it a lot]–4 [like it a lot]) how much, in general, they liked each advertisement.

#### *Advertising Effectiveness*

Advertising effectiveness refers to the potential influence of an advertisement on viewers' attitudes toward the product and brand it promotes. Effectiveness of each alcohol advertisement was measured with two questions addressing intentions to purchase the product and brand promoted. The respondents were asked how much they agreed, on a 4-point scale (1 [disagree strongly]–4 [agree strongly]), that the advertisement "makes me want to buy the product." They also were asked how likely or unlikely they would be to buy this particular brand if they wanted to buy some beer. Again, a 4-point scale (1 [very unlikely]–4[very likely]) was used.

#### *Alcohol Use*

Frequency of drinking alcohol in the past 12 months was ascertained using a 10-point scale (1 [not at all]–10 [every day]). This measure was recoded to number of days using category midpoint and then log-transformed because of data skewness.

#### *Background Variables*

Respondents' gender and age were ascertained and included in the analyses.

## **Results**

### *Sample Characteristics*

The study sample was 47% male, 50% Caucasian, 13% Latino, 6% Native American, 6% Asian and Pacific Islander, 0.4% African American, and 25% multiple or other ethnicities. The ethnic composition of this study sample closely represents the student population of the school district. Their ages ranged from 10 to 17 years with a mean age of 12.7 years. The mean level of parent education was 13.9 years for both father and mother. Due to missing data, 5 surveys were excluded from the data analyses. One hundred thirty participants watched Tape A and 118 participants watched Tape B.

Overall, 34% of the sample reported drinking alcohol in the past 12 months. Most drinkers reported either having alcohol "1–2 times" (36%) or "3–5 times" (31%) in the past 12 months. Slightly more males (36%) than females (30%) reported having consumed alcohol, but this gender difference was not statistically significant ( $p > .05$ ). Consistent with the existing literature, alcohol use increased with age: About two thirds (65%) of the participants from the high school reported drinking in the past 12 months, compared with 16% of the respondents in grades 5–8 ( $p < .001$ ).

### Examining Measurement Bias

The distributions of age, gender, and alcohol use were compared for respondents who watched Tape A and those who watched Tape B. No significant differences were found. In addition, responses to the likeability questions were examined for data bias due to presentation sequence. The analyses showed that respondents who watched advertisements with forward sequence and those who watched advertisements with reverse sequence differed in some responses for some advertisements, but the differences were not systematic.

### Advertising Likeability

Respondents' affective responses toward alcohol advertising varied greatly across these advertisements (Table 2). The Budweiser–*Ferret Replaces Lizard* advertisement was the most favorably received advertisement: 92% of those who viewed it indicated that they either “somewhat liked it” or “liked it very much.” A vast majority of the respondents also liked the advertisements of Budweiser–*Dalmatians*, Bud Light–*The Mouse*, and Coors Light–*Beer Man* (84%, 76%, and 65%, respectively). The least-likeable advertisements were Anheuser Busch–*A Legacy of Quality* (84% of the respondents who viewed it disliked it) and Guinness–*The Train* (83% of the respondents who viewed it disliked it). Note that the three most favored advertisements had animal characters (i.e., ferret, lizard, dog, and mouse) as the leading characters. In contrast, the least favored advertisements either focused on products or portrayed adult scenes.

**Table 2.** Affective responses to specific elements and overall liking

Advertisement	Specific elements					
	Overall % like	Music % like	Animal % like	People % like	Story % like	Humor % agree
Budweiser– <i>Ferret Replaces Lizard</i>	92	93	97	–	84	97
Budweiser– <i>Dalmatians</i>	84	56	93	67	81	93
Bud Light– <i>The Mouse</i>	76	58	82	74	60	91
Coors Light– <i>Beer Man</i>	65	54	–	66	61	78
Coors– <i>21 Means 21</i>	46	–	–	61	50	69
Foster’s– <i>Remote Control</i>	45	–	–	49	48	66
Michelob– <i>Twins</i>	44	34	–	58	41	62
St. Ides– <i>House Party</i>	44	70	–	45	34	21
Busch– <i>The Mountains</i>	41	63	–	21	28	11
Miller Lite– <i>The Wild Pitcher</i>	40	–	–	46	36	46
Beck’s– <i>German Comedian</i>	38	–	–	42	34	51
Heineken– <i>The Weasel</i>	32	84	–	51	35	46
Miller High Life– <i>Real Men</i>	24	–	–	25	29	33
Busch– <i>NASCAR</i>	23	52	–	36	23	13
Guinness– <i>The Train</i>	17	–	–	24	20	11
Busch– <i>A Legacy of Quality</i>	16	25	–	26	18	2

Note. The symbol, “–”, in the cell indicates that this element is not applicable.

The respondents generally rated the specific elements featured in the better-liked advertisements more favorably (Table 2). For the most favorably rated advertisement (i.e., the Budweiser–*Ferret Replaces Lizard* advertisement), 97% of the respondents agreed that it is funny; 84% liked its story; 97% liked the animal characters; and 93% liked the music. In contrast, when they rated an advertisement unfavorably, they also rated its featured elements unfavorably. For example, in the least favorably rated advertisement (i.e., the Anheuser Busch–*A Legacy of Quality* advertisement), only 2% of the respondents agreed it is funny, 18% liked the story, 26% liked the people characters, and 25% liked the music.

### *Advertising Effectiveness*

The findings on advertising effectiveness paralleled the findings obtained on advertising likeability. The most favorably rated advertisement was also rated as the most influential, whereas the least favorably rated one was also the least influential. Specifically, 35% of the respondents agreed that the Budweiser–*Ferret Replaces Lizard* advertisement made them want to buy the product promoted (Table 3). In addition, 43% of them reported that they would be “somewhat likely” or “very likely” to buy Budweiser beer if they wanted to buy beer. In contrast, only 5% of the respondents indicated that the Anheuser Busch–*A Legacy of Quality* advertisement made them want to buy the beer and 12% reported being likely to buy the brand advertised.

### *Predicting Advertising Likeability and Effectiveness*

Structural equations modeling was used to examine the structure of advertising attractiveness and how the affective responses (i.e., liking) toward specific elements,

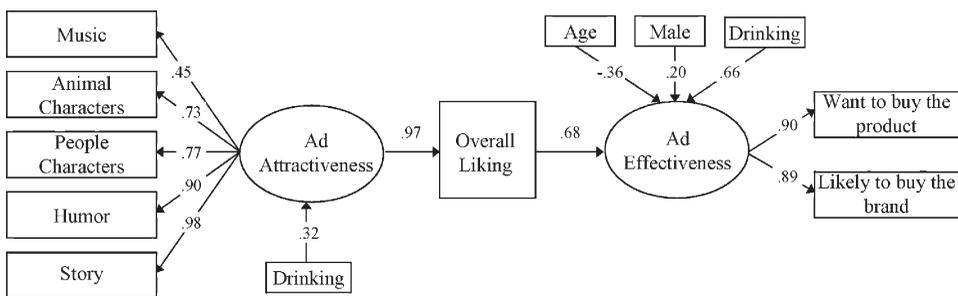
**Table 3.** Advertising effectiveness by advertisements

Advertisement	Want to buy product (% agree)	Likely to buy brand (% likely)
Budweiser– <i>Ferret Replaces Lizard</i>	35	43
Coors Light– <i>Beer Man</i>	28	31
Busch– <i>The Mountain</i>	21	20
St. Ides– <i>House Party</i>	19	25
Budweiser– <i>Dalmatians</i>	19	32
Miller High Life– <i>Real Men</i>	18	17
Miller Lite– <i>The Wild Pitcher</i>	17	29
Bud Light– <i>The Mouse</i>	16	28
Beck’s– <i>German Comedian</i>	15	16
Foster’s– <i>Remote Control</i>	15	13
Guinness– <i>The Train</i>	14	16
Michelob– <i>Twins</i>	11	16
Heineken– <i>The Weasel</i>	10	20
Busch– <i>NASCAR</i>	9	11
Coors– <i>21 Means 21</i>	8	15
Anheuser Busch– <i>A Legacy of Quality</i>	5	12

overall liking, and advertising effectiveness relate to one another. Because this study was interested in differences among advertisements, the advertisement was the unit of analysis in this procedure. We first used the Aggregate function in SPSS (SPSS Inc., 1999) to generate a data file that contained mean scores by gender and grade for each advertisement regarding liking of specific elements (music, animal characters, people characters, story, and humor), overall liking, and effectiveness. Grade was a surrogate variable for age because the sample size was considered too small to aggregate the data by the wide range of age. Three grade levels were constructed: Grade 5–6 ( $N = 94$ ), grade 7–8 ( $N = 65$ ), and grade 9–11 ( $N = 89$ ). A total of 96 aggregate data cases ( $16 \text{ ads} \times 2 \text{ genders} \times 3 \text{ grades}$ ) were thus generated. We then used latent variable structural equations modeling implemented with EQS (Bentler, 1997) to examine how various features in an advertisement contributed to an overall liking of this advertisement and to its influence.

A latent variable representing the overall attractiveness of advertisements was specified with the scores for the five specific elements (music, animal characters, people characters, story, and humor). Another latent variable was specified with the two variables that measured advertising effectiveness. In order to help identify the model, the unstandardized factor loading for one of the element measures was fixed at 1.0 and both unstandardized factor loadings for the effectiveness factor were fixed to 1.0. Overall liking of each advertisement was represented in the model by the single item measuring the extent to which the advertisement was liked or disliked. The model hypothesized that attractiveness would predict overall liking, which in turn would predict effectiveness. Gender, age (i.e., mean age for each of the gender-by-grade groups), and drinking (mean frequency of drinking, log-transformed) were included in the model as exogenous background variables. Because the data were not normally distributed, robust estimates of standard error and test statistics were requested. Standardized root mean squared residual (SRMR) and comparative fit index (CFI) were used to assess the model fit (Bentler, 1995; Hu & Bentler, 1999). A cutoff value close to .08 for SRMR and a cutoff value close to .95 for CFI were used as criteria for a good fit between the hypothesized model and the data.

Figure 1 presents the results from this analysis. The overall fit indices indicated a fair fit of this model: SRMR, 0.086, was greater than 0.08 and CFI, 0.93, was smaller than 0.95. This could be due to the small sample size as a result of aggregation. Nevertheless, because both SRMR and CFI indices were very close to their recommended cutoff values, we accepted this model. The factor loadings for the specific



**Figure 1.** Predicting advertising likeability and effectiveness. *Note:* Factor loadings and regression coefficients are standardized coefficients. Variable in circles are latent variables and variables in squares are measured variables.

elements on the latent factor "Attractiveness" indicated that all five elements significantly contributed to the overall attractiveness of beer advertisements. However, testing the equality of the factor loadings suggested that attractiveness of the beer advertisements was more closely related to liking of the elements of the story (standardized factor loading = .98) and humor (standardized factor loading = .90) than to liking of the people characters, animal characters, and music (factor loadings = .77, .73, and .45 respectively;  $p < .001$ ). Furthermore, the attractiveness of beer advertisements significantly and substantially predicted overall liking of the advertisements ( $\beta = .97, p < .001$ ), which in turn significantly predicted the effectiveness of the advertisements ( $\beta = .68, p < .001$ ).

Some other significant effects are noteworthy. Frequency of alcohol use positively predicted advertising attractiveness ( $\beta = .32, p < .001$ ) and effectiveness of beer advertising ( $\beta = .66, p < .001$ ). Alcohol use also had significant indirect effects on overall liking ( $\beta = .32, p < .01$ ) and effectiveness ( $\beta = .21, p < .01$ ). Ratings of alcohol advertisements' likeability and effectiveness appeared to be positively and directly related to respondents' experiences with alcohol. Age was also significantly related to perceived effectiveness of beer advertising, but in a negative direction ( $\beta = -.36, p < .01$ ). In other words, the beer advertisements were considered more influential by younger respondents. Finally, males rated the advertisements as more influential than did females ( $\beta = .20, p < .001$ ).

## Discussion

Marketing research indicates that the likeability of an advertisement may be attributed to its being creative (Stone, Besser, & Lewis, 2000), being perceived as meaningful and relevant (Biel & Bridgewater, 1990), or using special elements such as the characters, action, storyline, music, and visual elements (Walker & Dubitsky, 1994). The present study shows that youth's perceived likeability of beer advertisements is a function of the positive affective responses evoked by the specific elements featured in the advertisements. Perceived attractiveness of alcohol advertisements was more closely related to appreciation of the elements of humor and story than to appreciation of music, animal characters, and people characters. Yet the 3 most favorable advertisements in this study used animal characters as the leading actors. We also found a strong association between advertising likeability and its influence. That is, alcohol advertisements that were rated by youth as more likeable were also endorsed with greater intention to purchase the brand and products promoted. These findings are consistent with marketing research indicating that likeable advertisements are more effective and persuasive, and that liking of advertisements is one factor that affects attitudes toward brand and product (Walker & Dubitsky, 1994). We set out to expand the knowledge of what makes alcohol advertising appealing to youth and, indeed, by qualitatively identifying the major features in alcohol advertisements and then employing quantitative data collection and analysis methods we modeled the processes whereby the various features of alcohol advertisements may ultimately influence the overall advertising likeability and advertising effectiveness.

This study also identifies certain alcohol advertising content that is not appealing to youth. Specifically, the Anheuser Busch *A Legacy of Quality* advertisement, which solely describes beer making and beer quality, was not rated favorably and evoked less desire to purchase the product compared with other advertisements. This finding is consistent with previous findings that alcohol advertisements that focus on

the product itself are generally less appealing to youth than are those advertisements that focus on the lifestyle of the users (i.e., image advertisements; Covell, Dion, & Dion, 1994; Kelly & Edwards, 1998). In addition, although respondents rated the advertisement of Coors-21 Means 21 as moderately attractive or likeable, this advertisement was considered one of the least influential, possibly because it sent a message about legal drinking age, which seemed to discourage purchase intent for youth.

In light of these findings, policymakers should seek to encourage alcohol advertisers to avoid exposing youth to their marketing efforts, focus their advertisements on product-related characteristics, and use content that is less appealing to youth. Advertisements such as Coors-21 Means 21 that actively discourage youth purchasing or using alcohol while promoting brand recognition among adults are especially desirable. These suggestions are in keeping with the recent recommendations of the National Research Council and Institute of Medicine report (2004) on preventing and reducing underage drinking. This report specifically urges alcohol advertisers to strengthen their advertising codes to preclude marketing practices that have substantial underage appeal and to take reasonable precautions to avoid placing alcohol advertising in venues where a significant proportion of the audience is underage. To meet these goals, the report further recommends that the alcohol industry establish independent external review boards to monitor its advertising, investigate complaints, and enforce these codes. The report also recommends external monitoring, possibly through Health and Human Services, to provide Congress with periodic reports on the extent to which young people are exposed to alcohol advertising. Implementation of these recommendations should be a priority.

Although our analyses indicated that youth who drank alcohol more frequently rated beer advertisements as more likeable and more influential than did those who drank alcohol less often or did not drink, this finding resulted from cross-sectional data and must be interpreted with some caution. It is possible that alcohol advertising influences young people's drinking beliefs and behaviors, but the opposite also may be true. That is, young people who are predisposed to drinking may be more attentive to and hold more favorable attitudes toward alcohol advertising. Most likely, the relationship is complicated and reciprocal. Further research, especially with a longitudinal design, is needed to better understand the relationship between alcohol advertising and drinking among youth. Regardless of the causal direction of the relationship, alcohol advertising and marketing, at the least, send a message to young people that is counter to and may undermine efforts at preventing underage drinking and related problems. As such, it is important to reduce both youth exposure to alcohol advertising and the appeal of such advertising to young people.

Beer advertisements were also rated as more influential by males than females. This gender difference may result from the fact that many of the advertisements depicted masculine themes (e.g., males hanging out or party scenes presented from a male perspective). As a result, the content might have been more relevant and appealing to males, thereby evoking more positive responses from them. Future research examining gender differences in terms of advertising appeal and likeability of alcohol advertisements could inform the design of more effective gender-specific intervention campaigns.

Finally, our findings also have implications for designing effective counter-advertising. Counter-advertising measures such as public service announcements (PSAs) are generally rated as boring or unmemorable, and are generally ineffective at reducing youth alcohol use (Agostinelli & Grube, 2002). It may be worthwhile for

counter-advertising measures targeting younger age groups to incorporate elements such as humor, youth-oriented music, and youth-attractive characters and stories that appeal to these audiences. Effective counter-advertisements should also include a variety of themes and contexts to appeal to different audiences including males, females, current drinkers, and potential drinkers.

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