

# Informing the Debate

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Michigan Applied Public Policy Brief

## Alcohol Advertising in Social Media among Minors

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# Informing the Debate

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# Informing the Debate

MAPPR Policy Research Brief

## Alcohol Advertising in Social Media among Minors

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## EXECUTIVE SUMMARY

Underage drinking is a significant health risk, both to individuals themselves as well as others. Policy changes upcoming in Michigan related to reducing the penalty for a first Minor in Possession (MIP) offense are thought to augment the prevalence and intensity of drinking among underage youth. However, this policy change is situated in a social context where social norms (or perceptions of what's prevalent and acceptable among friends and family) and mediated communication play a pivotal role in motivating youth to uptake drinking and drinking more intensively, despite the legal challenges to that. One of the major factors influencing underage drinking is exposure to alcohol marketing and advertising. From promotional displays at local grocery stores, to advertisements during major sporting events, to messages seen via social media (e.g., Facebook, Instagram, and YouTube). The major differences between formal forms of advertising (e.g., TV, magazines, Billboards) and social media are the ability to reach a wider audience, for lower cost, along with an infinite capacity to store, engage with, and share ads via users' own social networks. While availability of advertisements is key to understanding the magnitude of the issue, understanding how the elements of alcohol advertisements motivate youth to drink is key for policy-relevant actions related to advertising regulation.

In the current paper, we primarily focus on the ways in which the age or perceived look of age for models included in alcohol advertisements shape the likelihood of drinking among underage youth. The most prevalent way to detecting such influences is simply showing underage youth ads that feature younger- and older-looking models and then ask them about whether or not they would like to drink. While this approach is widely popular and relatively valid, we took an alternative approach to understanding how underage youth process information from alcohol advertisements. To this end, we invited over 100 underage youth from Michigan to a psychophysiology lab where we did not only ask them to rate the ads, but also collected implicit measures of cognitive and affective responses. Our findings showed that when beer ads featured younger- than older-looking models, our underage youth participants paid more attention to the ads, and exhibited less unpleasant emotions and more pleasant emotions. Additionally, their self-report data showed that when asked about their intentions to consume alcohol, it was the combination of beer ads and younger looking models that sparked their desire to drink. We further validated the findings from our lab study by recruiting a nationally representative sample of underage youth who viewed beer or soda ads with underage models (below 21), young adults (21-24 years old) and older models (over 30). Our findings showed that despite the fact that we predicted similarity in age between the participants and the models would overrule and ignite their interest in drinking, it was the exposure to beer ads with young adult models that motivated participants to drink the most. This is critically important in light of the self-regulatory mechanisms, whereby alcohol marketers and advertisers commit to not including models aged 25 or less. The main conclusion our study makes is that actual age of the models is not sufficient enough to deter underage youth from drinking. It is the perceived age of the models selling alcoholic beverage that matter, and if they look between the ages of 21 and 24, underage youth will more likely be influenced to drink as a function of seeing the ads. Understanding the dynamics of alcohol advertising effects on

Michigan underage youth is of significant public health importance, especially that in comparing the MI and national samples of underage youth, those from Michigan reported significantly higher levels of alcohol use than their counterparts from across the United States.

## ALCOHOLIC BEVERAGE POLICIES AFFECTING YOUNG CONSUMERS

Policy makers frequently must make decisions in an informational vacuum that concern and affect human behavior. A public problem arises in need of regulatory response, but the choice of regulatory options can be endless and the outcomes of those choices often are completely unknown. For example, this fall the Michigan Legislature adopted changes to its “Minor in Possession” (MIP) law, deciding to reduce the penalties for minors caught possessing alcoholic beverages (Senate Bill 332, 2016). The obvious goal is to continue protecting youth from the hazards of alcohol consumption, while reducing the onerous penalties. Since penalty reduction could result in increased consumption, a thorough understanding of minors’ relationship with alcohol could help legislators choose the right policy approach. The MIP laws in Michigan are not the specific focus of the current study, but do help to illustrate how assumptions about the effects of alcohol policy change might have unintended consequences.

Substance abuse by children and adolescents is a constant and continuing concern for policy makers in Michigan, as well as nationally. The 2013 National Survey on Drug Use and Health (NSDUH) found that about 5.4 million Americans aged 12-20 engaged in heavy episodic (or binge) drinking, and 1.4 million engaged in heavy drinking (Substance Abuse and Mental Health Services Administration, 2014). In Michigan alone, in that same year, underage drinking was estimated to cost the state \$1.9 billion (Pacific Institute for Research and Evaluation, 2015). This is an important and complex situation.

In order to choose the best approach to regulating minors’ alcohol consumption, policy makers need to understand the role of alcohol advertising and marketing in the abuse of these products. There is ample evidence that both underage consumers, and those barely within legal age for alcohol purchases, are in the formative stages of their consumption behaviors and influenced by alcohol marketing practices (e.g., Henriksen et al., 2008; Meier, 2011; Noel et al., 2016). Research on people aged 11-26 has found positive relationships between consumption of alcohol and the marketing of those products.

Some of the newest methods of promoting alcoholic beverages include media vehicles that also are popular with children, adolescents, and young adults: social media. Indeed, this approach has become the latest salvo of alcohol marketers in their attempts to master what is known as eWOM (electronic word-of-mouth), where consumers become surrogate sales people, spreading the word about a particular product brand (Hennig-Thurau et al., 2004).

Our previous findings with emerging adult samples found that exposure to alcohol advertisements on social media does not only increase participants’ intentions to consume alcohol, but also increases the likelihood of their performance of behaviors that could increase alcohol use risks (choosing a gift card for a bar rather than a coffee shop) (Alhabash et al., 2016). Additionally, our previous findings showed that the strongest predictor of expressing drinking intentions was participants’ intentions to like, share, and comment on alcohol advertisements on social media platforms like Facebook (Alhabash et

al., 2015). Given the previous evidence showcasing a relationship between exposure and interaction with alcohol-related content on social media, on one hand, and drinking intentions and behaviors, on the other, we argue that policy-relevant conclusions could reform the current state of the law in relation to marketing of alcohol on social media.

What this means for legislators is that alcohol use is being promoted in ways that did not exist just a handful of years ago, and policies that seemed to work at that time might no longer function the same way. Any policies aimed at protecting underage consumers absolutely must consider social media, since that is where these consumers spend so much of their time. However, because social media is relatively new, research on the effects of social media alcohol marketing on young people is nearly non-existent. That research is needed, if the most rational and/or effective regulatory measures are to be fashioned. A better understanding also can help to fend off legal challenges to any regulatory measures that are adopted.

## THE ROLE OF RESEARCH IN POLICY

Because alcoholic beverage promotions are “commercial speech” protected under the First Amendment of the U.S. Constitution (*44 Liquormart v. Rhode Island*, 1996), legislators and courts must consider whether a proposed restriction is narrowly tailored to achieving a substantial government interest. Protecting children and adolescents from the dangers of alcohol abuse or misuse is likely to be seen by courts as such a substantial interest, so the real question is whether a particular regulatory option will directly advance that interest and not be so broad as to stop a lot of speech that poses no danger to minors.

An essential component of that deliberation is whether such a regulation will “directly advance” the interest. Ultimately, this is a question of causation: will the regulation help? When regulators engage in “mere speculation or conjecture” to fashion restrictions on speech, they run afoul of the First Amendment. The Supreme Court has held that, “a governmental body seeking to sustain a restriction on commercial speech must demonstrate that the harms it recites are real and that its restriction will in fact alleviate them to a material degree” (*Edenfield v. Fane*, 1993). Research into the role of social media in promoting alcoholic beverage use, therefore, is vital to crafting – and defending – regulations that address the role of advertising and marketing in the area of underage consumption. Regulations aimed at restricting or even prohibiting alcoholic beverage advertisements in social media, for example, might be constitutionally permissible if research shows a connection between such advertising and increased risks to the health of minors, but in the absence of such evidence the probability of such a regulation’s survival under constitutional scrutiny is far less likely. Experimental research, as opposed to more correlational methods like surveys, holds greater promise of determining whether such a causal connection between advertising and behavior related to alcohol purchase and consumption exists.

The current study investigates the effects of exposure to alcohol advertising among underage youth (or minors) by contrasting cognitive and affective processing of

advertisements as a function of the type of beverage they feature (beer vs. soda) as well as the perceived age of models present in the advertisements. The next section provides an overview of the theoretical framework guiding our work.

## MODELS' AGE IN ALCOHOL ADVERTISING

The three self-regulatory mechanisms guiding marketing and advertising of beer, wine, and distilled spirits in the United States, including the state of Michigan, commonly advocate marketers to refrain from using models that appear to be below the legal purchase age of 21 (Beer Institute, 2015; Distilled Spirits Council, 2011; Wine Institute, 2016). All three alcohol advertising and marketing codes agree that in order to guard against the prevalence of underage-looking models in advertising, alcohol marketers and advertisers agree not to hire anyone below the age of 25 to appear in advertisements.

Advertising visuals, such as photography, graphics, and human model depictions, provide consumers with important cues about the advertised product. The use of visuals in ads can attract attention and facilitate identification with the depicted images (Sung & Hennink-Kaminski, 2008). In particular, models in ads have the ability to influence consumers' psychology through portraying a particular lifestyle in the message (Chang, 2008). Studies have shown that the extrinsic features of the models (i.e., race, age, and gender) can elicit a self-categorization process (Forehand & Deshpande, 2001; Maldonado, Tansuhaj, & Mueling, 2003) where consumers exposed to an ad evaluate the advertised product as "for-me" or "not-for-me".

According to Chang (2008), the age of the model featured in the ad can exert a strong influence on this "for-me" or "not-for-me" evaluation process; also known as self-categorization process (Chang, 2008; Forehand & Deshpande, 2001). A college student exposed to an ad with a model in his forties might infer that the advertised product is suited for people in their forties rather than college students. Congruence between the age of the models and consumers' cognitive age resulted in more favorable ad and brand evaluations (Chang, 2008; Wen, 2004).

The existing research concerning the effects of advertising models on purchasing outcomes has found that not all consumer segments have the same preference patterns when it comes to the age of the model featured in ad. For example, middle-aged women have been shown to be less concerned with the models age and place more emphasis on whether there was a fit between the model and the product (Reid, Rotfeld, & Wilcox, 1982). Further, older folks have been shown to avoid promotions that are associated with seniors (Tepper, 1994).

Given that the models' age-related cues in advertising have an effect on participants' evaluations of the ad and their subsequent intentions to purchase the advertised product (Chang, 2008; Day & Stafford, 1997; Pezzuti, Pirouz, & Pechmann, 2015; Simcock & Lynn, 2006), it becomes meaningful to investigate how models' age can promote the purchase of products intended for use by other age segments. Pezzuti and colleagues (2015) posited



that marketers appeal to younger consumers through the inclusion of models with similar ages in advertisements. However, they claimed that when the participants were exposed to advertisements for an age-restricted product (e.g., alcohol and tobacco), adolescents conformed to dissimilar young adult models and diverged from similar adolescent models.

Although consumption of alcohol is illegal for minors under the age of 21, Americans aged between 12 and 20 years drink 11% of all alcohol consumed in the United States (CDC, 2015). Therefore, it is important to understand how adolescents respond to the age of advertising models for age-restricted products. Per the US Distilled Spirits Council, models in alcohol ads should appear to be 25 years of age or older (Pezzuti, Pirouz, & Pechmann, 2015). Nonetheless, alcohol marketers continue to use young-looking models in their ads. Thus, this study investigates the effects of advertising models' age on participants' evaluations of the ads, purchase intentions, and behavioral intentions.

## THEORETICAL FRAMEWORK: LIMITED CAPACITY MEETS SOCIAL COGNITIVE THEORY

The limited capacity model of mediated motivated message processing (LC4MP) has become the cornerstone of understanding the cognitive and affective processing of mediated communication. LC4MP rests upon five major assumptions: (1) humans are information processors with limited cognitive processing ability; (2) humans process information based on activation of their appetitive (approach) and/or aversive (withdraw) motivational systems; (3) humans interact with media through sensory channels (i.e., eyes, ears, touch) thus receiving information in different formats (i.e., text, audio, visual, audiovisual); (4) interacting with a mediated message happens over times; and (5) communication is defined as the result of humans motivational system and the content of communication (message). Per LC4MP, humans' interaction with media is opportunistic in that messages that activate motivational responses beyond the baseline of biological survival are the ones that are processed.

In other words, as humans, we process information variably as a function of elements that entice the activation of our approach (appetitive) and avoidance (aversive) motivational systems, which can be activated based on the relevance of the external stimulus, its novelty, and emotionality (positive and/or negative); all of which are assessed within the working memory, where new information is evaluated in consideration of older information (from long-term memory). Within the context of the current study, underage youth are not only familiar with alcoholic beverages, but they also view alcohol favorably. Alcohol is associated with positive attributes about both the self and others within one's social environment. This is also complex, because underage youth (18-20 years old part of our sample) cannot legally purchase alcoholic beverages, yet due to their social experiences (e.g., living on a college campus), alcohol is not only available but part of the normative culture. Therefore, we argue that the associations in memory among this particular sample are intensely positive, which should guide the differential cognitive and affective processing of alcoholic versus non-alcoholic beverage ads.

Our second layer of experimental manipulation deals with the perceived age of models in alcoholic beverages. To better understand how models' age influences processing and persuasiveness of alcoholic and non-alcoholic beverage ads, we turn to two prominent theoretical approaches: social cognitive theory (SCT) and the social norms approach (SNA).

SCT (Bandura, 1986) posits that learning can occur through observation of others' behaviors and the consequences of those behaviors. When one observes another person engaging in a particular behavior they learn the sequence of events from behavior through consequence, which guides his/her own future behavior. For example, a young girl may witness her older brother receive a "time out" discipline after hitting the family pet, and so she learns not to hit the animal without having to go through a process of trial and error to learn whether hitting is an acceptable behavior; thus setting up expectations for acceptable behavior.

This type of observational learning does not only deter people from behaviors believed to have negative consequences. It can also motivate people to replicate behaviors that are seen to have positive consequences, because observation of a behavior being rewarded will set up an expectation that one's own replication of that behavior will result in reward. As children we may learn by observing consequences incurred by our siblings and peers, but observational learning also continues into adulthood (Bandura, 1986, 1997; White, Wójcicki, & McAuley, 2012). Media portrayals, including advertising, also provide examples of behaviors leading to reward. Fleming, Thorson, and Atkin (2004) found that alcohol advertising helped shape young people's attitudes, leading to positive expectancies and increased intentions to drink. Recent research has applied SCT to the study of adult drinking behaviors and found excessive drinking linked to reward sensitivity – adults who perceive more rewards associated with drinking are more likely to drink more (Hasking, Boyes, & Mullan, 2015). Likewise, alcohol consumption among underage youth was positively related to their perceptions about their own and others' benefit from their drinking (Padon, Rimal, Jernigan, Siegel & DeJong, 2016).

An important tenet of this theory is "identification." Identification occurs when the observer feels they are in some way similar to the person whose behavior they are observing (Bandura, 1986). A sense of identification might be felt if the two people are similar in any number of ways (e.g., age, gender, race, home town, etc.). A greater number of shared identification elements (e.g., the observer is the same age *and* gender as opposed to simply the same age as the person being observed) will increase the likelihood of the observer learning to expect certain consequences of the observed behavior, in turn increasing the likelihood of replicating rewarded behaviors and avoiding punished behaviors (Bandura, 1995).

A closely related concept, social norms theory, further explains how behaviors can be observed and repeated, despite potentially adverse effects. Descriptive norms – such as perceptions about the frequency of alcohol consumption among adolescents' reference group of other adolescents – are linked with the likelihood of performing that behavior (Lapinski et al., 2013). Injunctive norms, perceptions about what behaviors ought to be

performed, further influence behavior. College student drinking, for example, is positively related to perceptions about the social acceptability of that behavior (Rimal 2008). Media messages can communicate these social norms, and one method is using models/actors to represent the reference group. Social cognitive theory suggests a youthful-looking model consuming an alcoholic beverage may encourage drinking via increased identification with the model and increased expectation for rewards, while social norms justify the behavior as likely and expected among similar young people.

Based on this, our thinking was that including younger-looking models in advertisements will motivate greater cognitive and affective processing of the ads, and in turn make alcoholic beverages and the thought of drinking more appealing to this demographic. Seeing someone who is similar, we hypothesized, will motivate individuals not only to pay more attention to the ads, but also, further adopt what the ad is selling. We address this issue in two studies. Study 1 applied a novel approach to unraveling processing of mediated messages through the use of psychophysiological responses, in addition to self-report measures of cognitive and behavioral intentions. Study 2 tests the same assumptions of Study 1 yet with a nationally representative sample (half of which came from Michigan) to further validate our claims.

## STUDY 1: PSYCHOPHYSIOLOGICAL AND SELF-REPORT MEASURES OF ALCOHOL AD EXPOSURE

### Experimental method description

Underage youth (18-20 years old;  $N = 111$ ) were brought to an experimental lab and were exposed to 12 beer and soda advertisements that featured younger- and older-looking models. The majority of the sample was female (75.7%), white (64.3%), and indicated they drank at least once in the past few months (87%). The 12 ads were pulled from [www.YouTube.com](http://www.YouTube.com), and were pretested with an independent sample in terms of perceived models' age. Participants were seen individually in the Media and Advertising Psychology (MAP) Lab at Michigan State, where we collected psychophysiological measures during ad exposure, including: electrocardiography (ECG; 'heart rate'); electrodermal activity (EDA); and two facial electromyography (EMG) signals that are indicative of unpleasant (Corrugator Supercilii muscle activation) and pleasant (Orbicularis Oculi muscle activation) affective responses. We also asked participants to express their attitudes toward the ads, their viral behavioral intentions (intentions to like, share, and comment on the ads), and their intentions to consume alcohol.

### Which Ads Garnered More Attention?

**Heart Rate.** Participants exhibited greater heart rate deceleration for beer ads featuring younger models than those featuring older models, while there seems to be a similar trend in heart rate deceleration and acceleration for soda ads featuring both younger- and older-looking models,  $F(1, 81) = 5.30, p < .05, \eta^2_p = .06$ . This indicates that when beer ads feature

younger models, our underage youth sample is more likely to allocate greater cognitive resources to processing such messages compared to those with older-looking models.

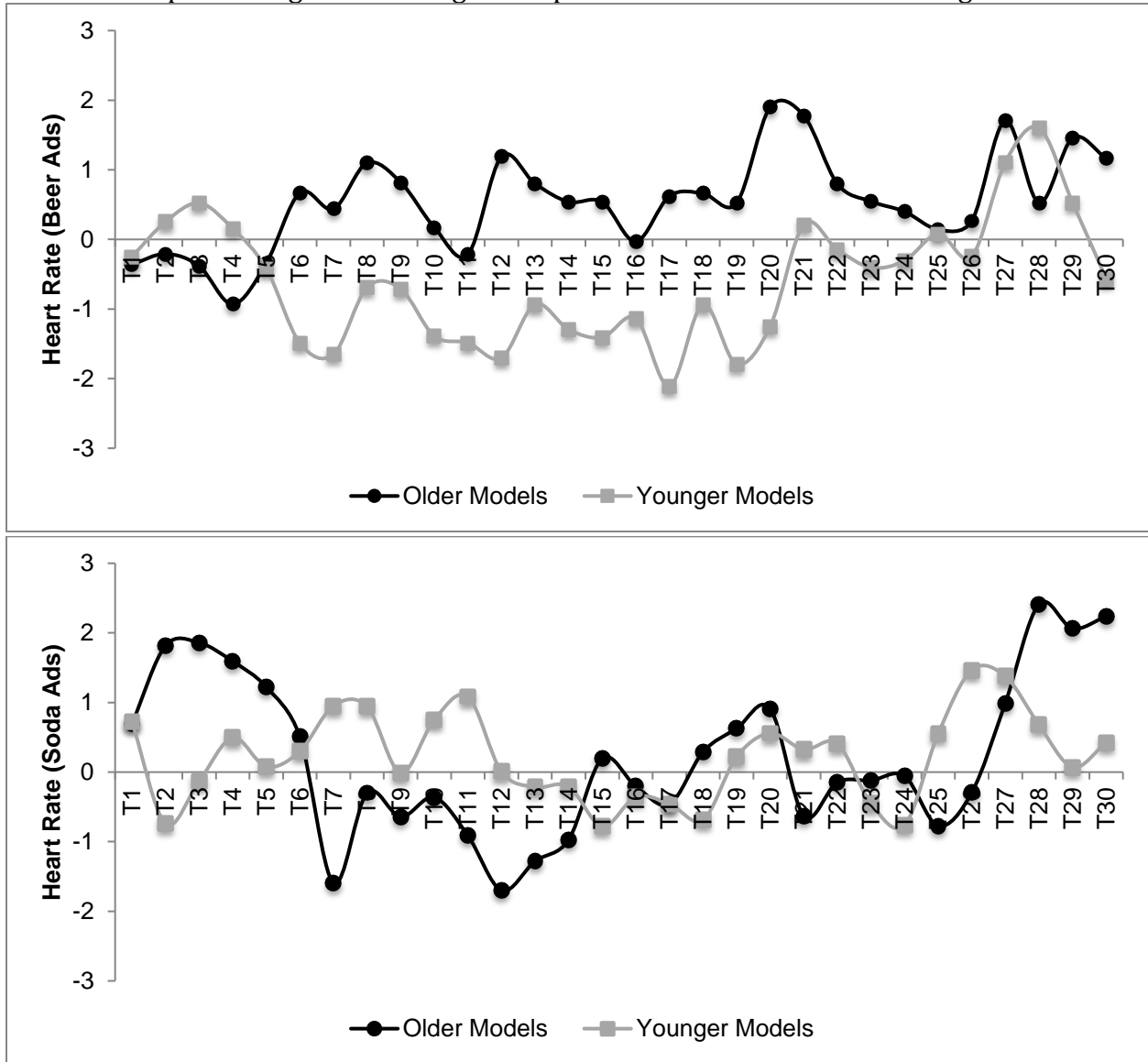


Figure 1. Heart rate change over time for beer (top) and soda (bottom) ads, as a function of models' age

**Electrodermal Activity (EDA).** Participants exhibited decrease in EDA (decreasing arousal) when exposed to beer ads featuring younger models, while they experienced increased EDA activity when the beer ads featured older-looking models. On the other hand, when it comes to soda ads, participants experienced a slight increase in EDA when the models were younger-looking, compared with a slight decrease in EDA when the models were older-looking. The three-way interaction was significant,  $F(1, 81) = 5.76, p < .05, \eta^2_p = .07$ .

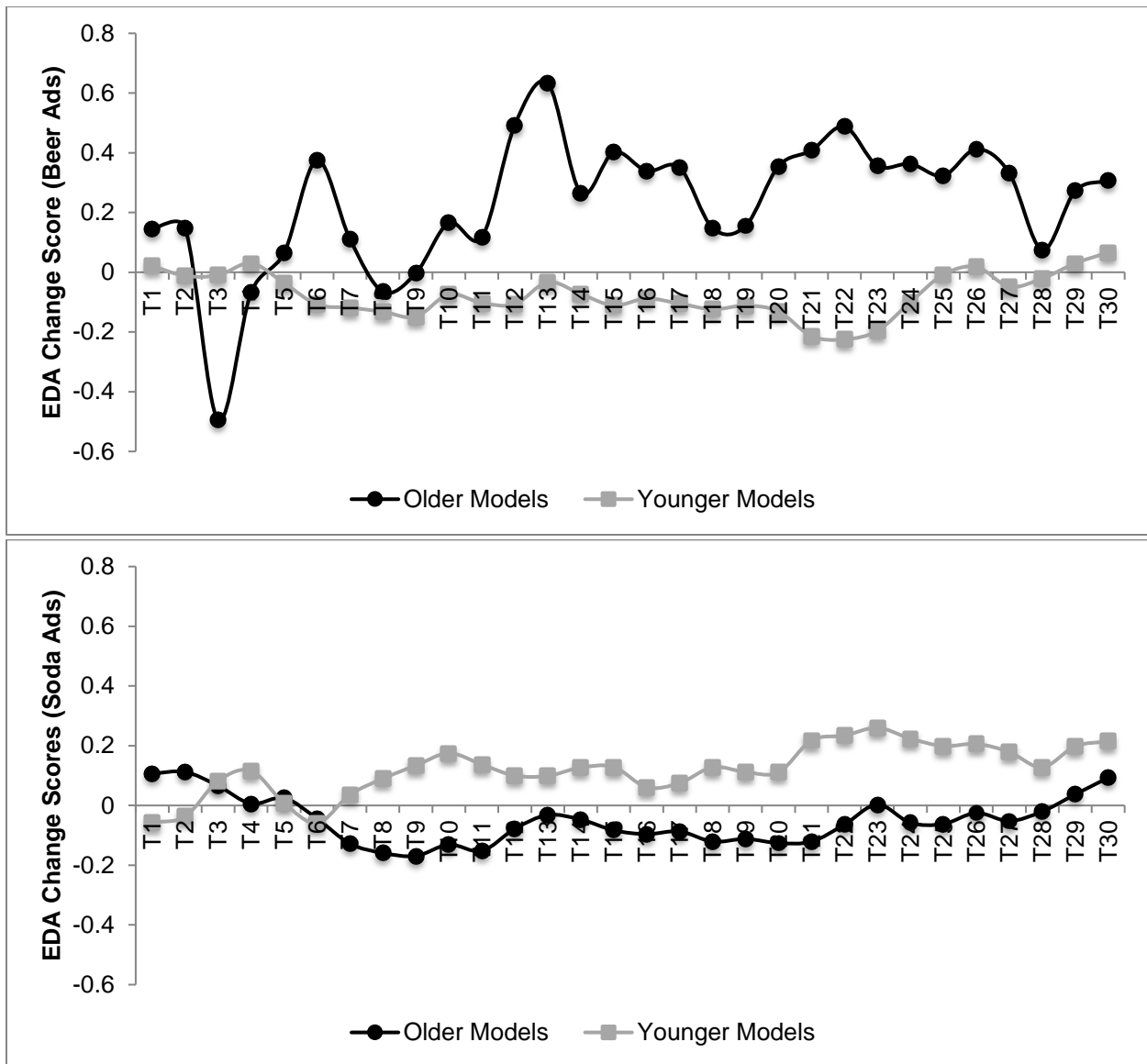


Figure 2. Electro dermal activity (EDA) over time for beer and soda ads, by models' age.

In Study 1, we relied on a combination of psychophysiological and self-report measures.

Taken together, data for heart rate and EDA show that participants experienced greater cognitive resource allocation (usually indicated by heart rate deceleration and decrease in EDA or arousal) when exposed to beer ads featuring younger-looking models, yet they were inclined to experience greater levels of arousal (excitement) with less cognitive resource allocation when beer ads featured older-looking models. As for soda ads, little difference is shown between younger- and older-looking models' ads in terms of both heart rate and EDA, which also indicates that beer ads are more likely to garner participants' attention and excitement than soda ads among 18 to 20 year olds.

## What about Affective Responses?

We relied on two measures of affective processing of advertisements: corrugator supercillii and orbicularis oculi muscle activation, where we placed sensors above the eyebrow (frown muscle) and below the eye (eye-blink muscle), respectively. CR muscle activation is indicative of unpleasant emotional responses. In terms of unpleasant affective responses, participants exhibited lower levels of corrugator supercillii muscle activation when the models were younger- than older-looking in beer ads, yet they exhibited greater corrugator supercillii muscle activation for soda ads with younger- than older-looking models,  $F(1, 81) = 3.20, p = .078, \eta^2_p = .04$ . This suggests that beer ads featuring younger-looking models led to experiencing less unpleasant emotions than those with older-looking models (see Figure 3).

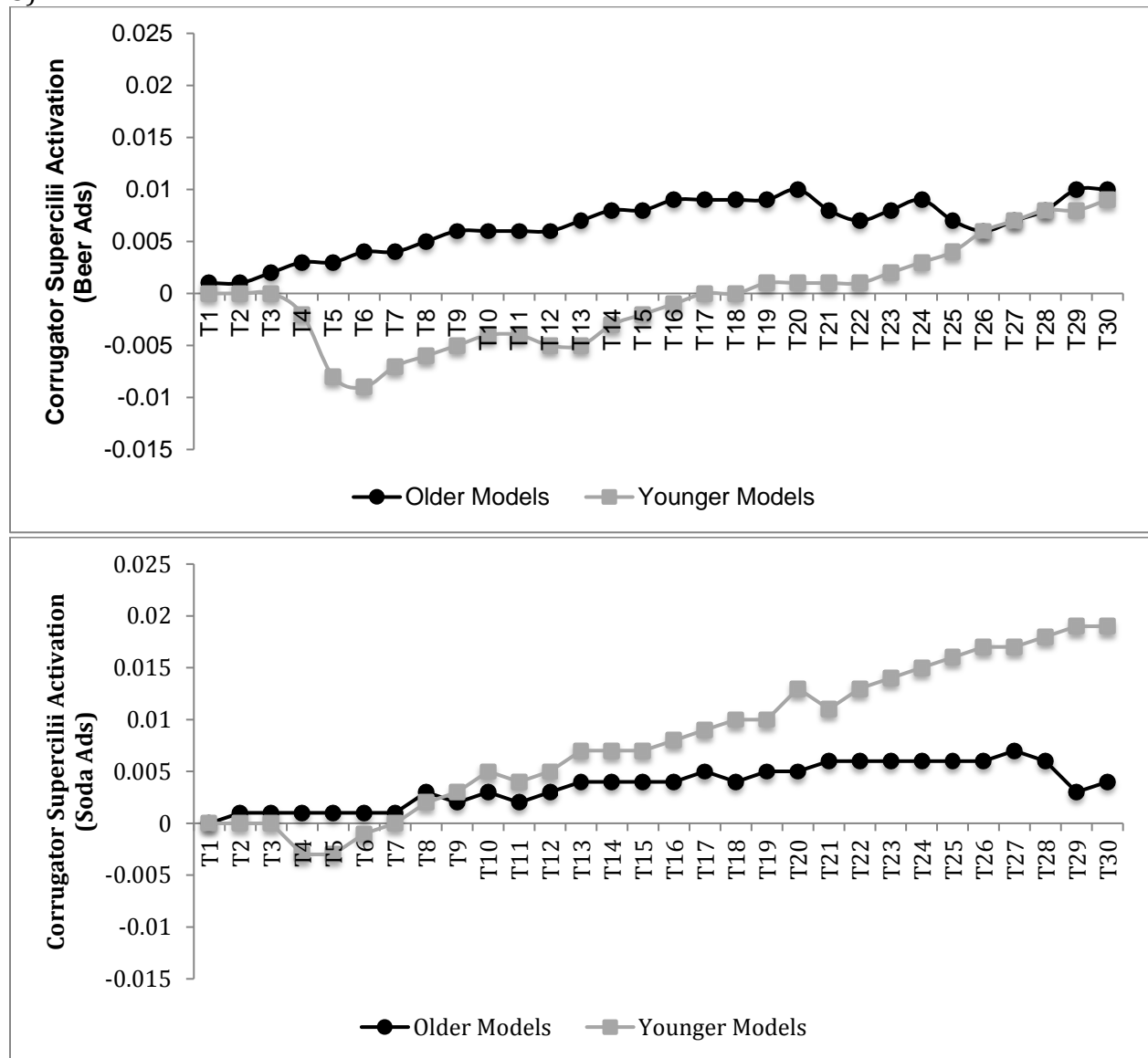


Figure 3. Corrugator Supercillii muscle activation for beer and soda ads, by models' age and time

In terms of pleasant affective responses, our findings illustrate that participants did not experience much change in orbicularis oculi muscle activation during exposure to beer ads featuring younger-looking models. Yet they exhibited a decrease in orbicularis oculi muscle activation when the beer ads featured older-looking models. On the other hand, participants exhibited similar levels of orbicularis oculi muscle activation for soda ads with younger- and older-looking models,  $F(1, 81) = 3.24, p = .076, \eta^2_p = .04$ . This suggests that beer ads featuring older models led to decreased levels of pleasant emotional responses.

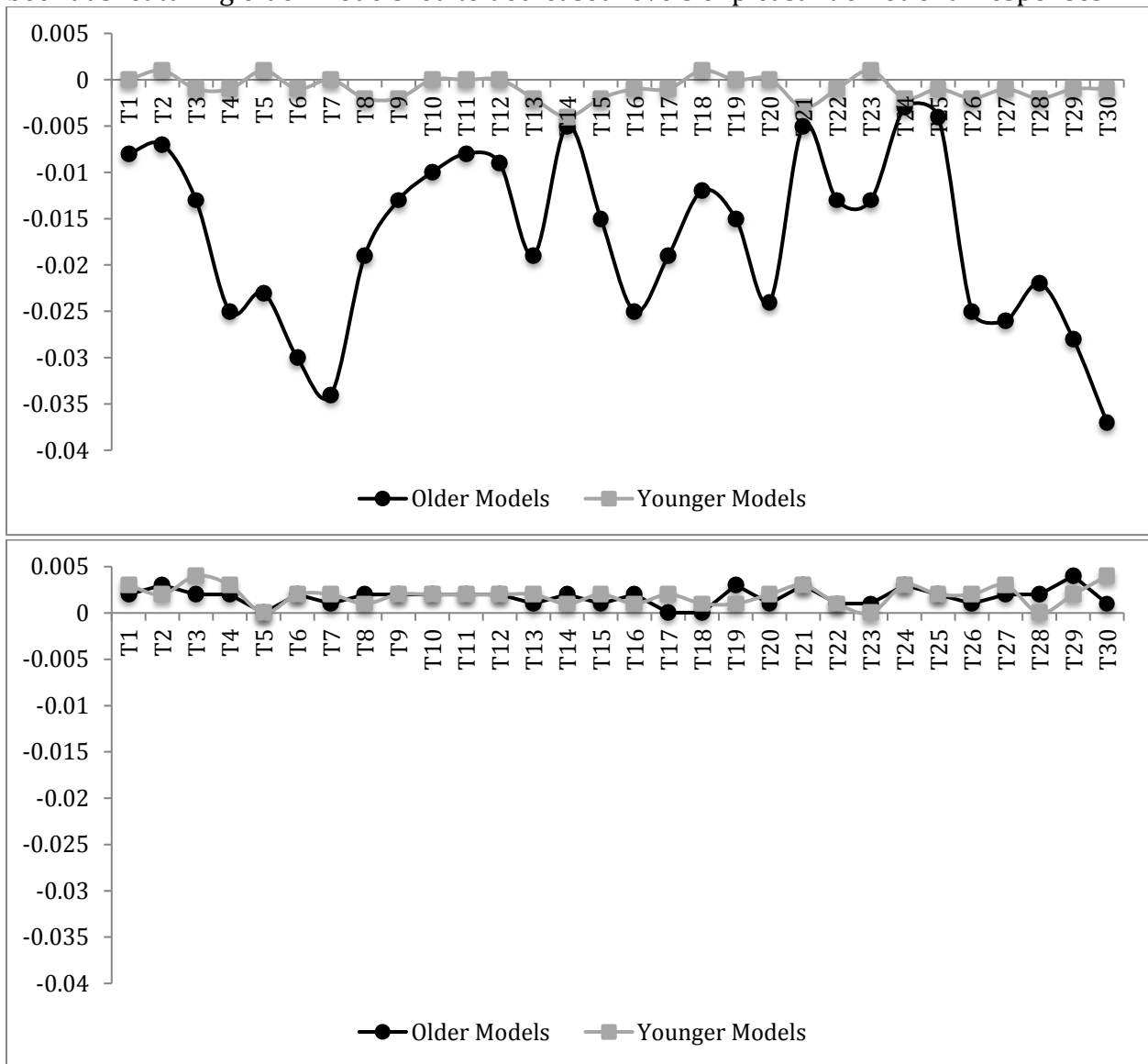
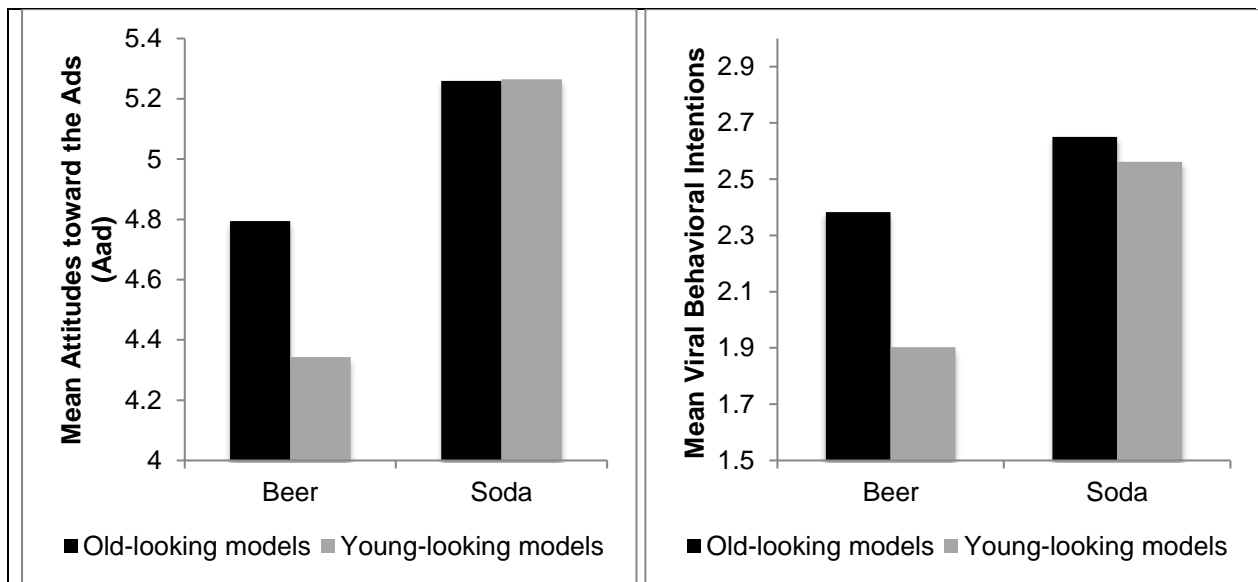


Figure 4. Orbicularis Oculi muscle activation over time for beer and soda ads, by models' age and time

## Reflections from the Self-Report Data

The psychophysiological data shows an interesting trend of greater attention paid to beer ads featuring younger than older looking models, and greater unpleasant emotions experienced while viewing beer ads with older than younger-looking models. We also assessed the self-report of participants attitudes toward the ad, viral behavioral intentions, and intentions to consume alcohol. Interestingly, our findings show participants did not differ in their expression of attitudes toward the ads nor did their viral behavioral intentions for soda ads as a function of the age of the models. Yet, they expressed greater favorability and viral behavioral intentions for beer ads featuring older- than younger-looking models (Aad:  $F(1, 110) = 10.48, p < .001, \eta^2_p = .09$ ; VBI:  $F(1, 110) = 14.27, p < .001, \eta^2_p = .12$ ). When asked whether they wanted to drink after seeing the ad, participants expressed equal intentions to drink upon exposure to soda ads featuring younger and older looking models. Yet when the ads featured a beer brand, they wanted to drink more when the models selling the beer were younger than older looking,  $F(1, 110) = 56.91, p < .001, \eta^2_p = .34$ . It is important to note that the perceived age of the younger-looking models ranged between 21 and 25 years old, thus indicating that the self-regulatory mechanisms are encouraging youth to imbibe.





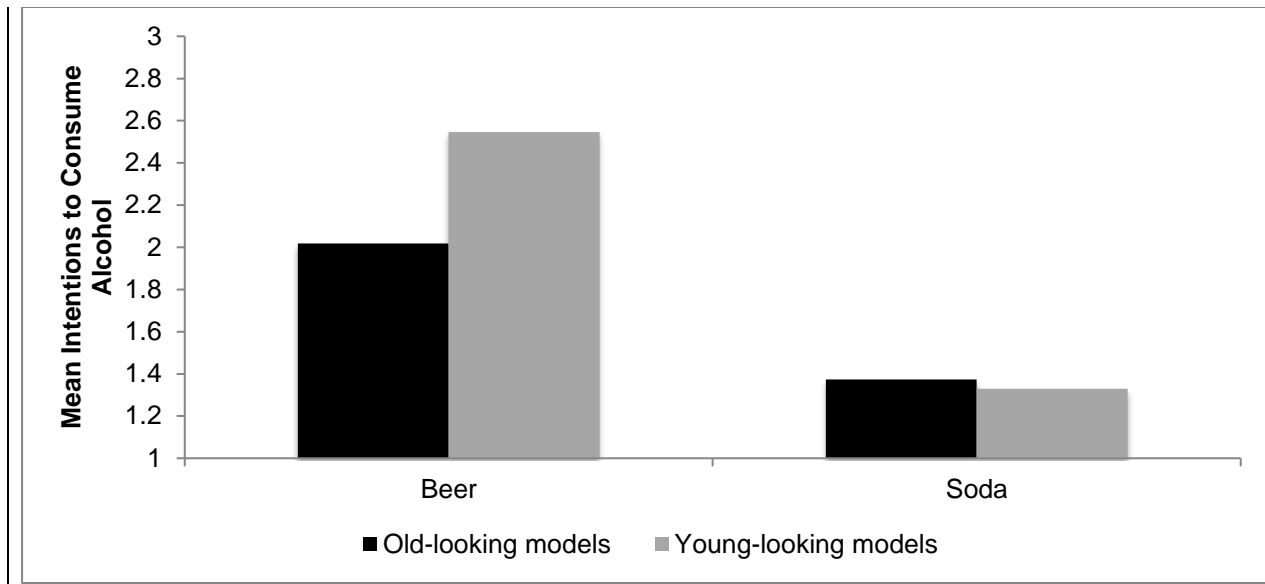


Figure 5. Aad, VBI, and ICA for beer and soda ads, by models' age

## STUDY 2: A REPRESENTATIVE SAMPLE, AND ALTERNATIVE SOCIAL MEDIA PLATFORM

The premise of Study 2 was to re-examine and extend the findings of Study 1 in three ways by: (1) recruiting a nationally representative sample, (2) changing the context to Instagram, and (3) including another age variation in the models' age manipulation. To this end, we exposed participants each to three ads that featured either a beer or a soda product along with a picture of models who were either underage, young adults (21-24 years old) or older adults (above 30) (see Figure 6). The study was conducted online with a nationally represented sample and an equal quote from the state of Michigan ( $N = 1,082$ ) of underage youth between the ages of 18 and 20 recruited through Qualtrics Panels. The sample was mostly female (64%), white (65%), and indicated they consumed an alcoholic the last time they partied or socialized (62%).

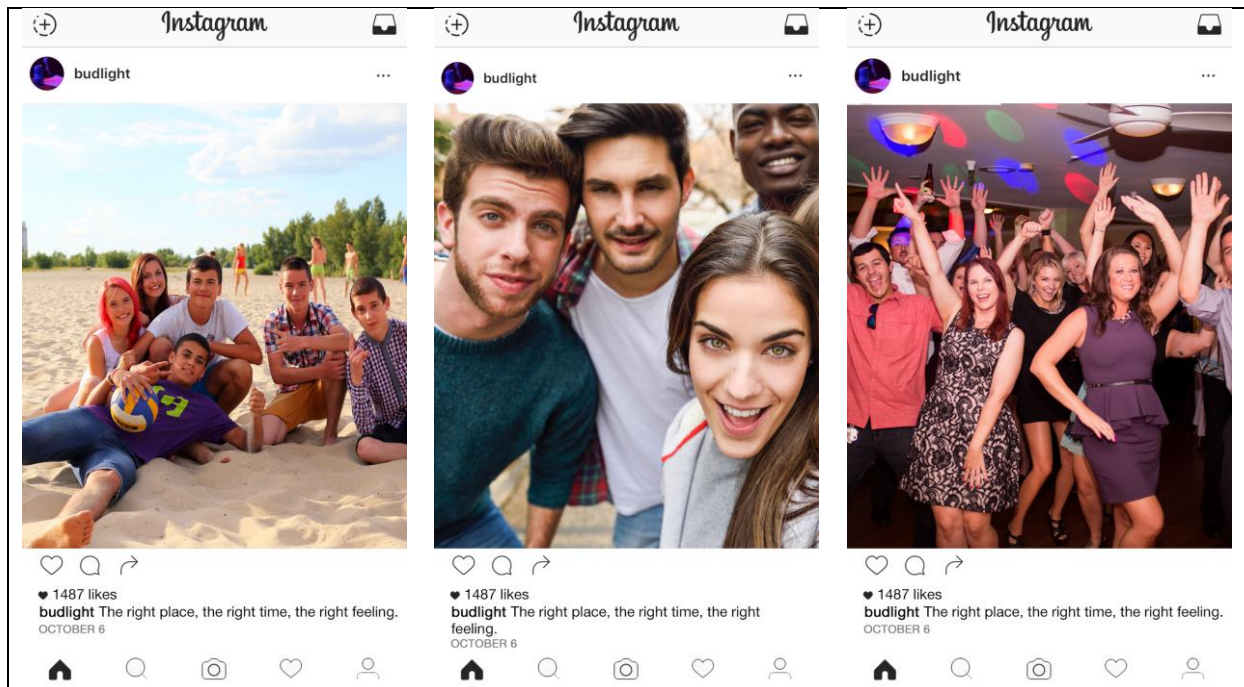


Figure 6. Sample Stimuli for Study 2

A finding particularly significant to Michigan was derived from Study 2. Despite the fact that participants from across the United States and those from Michigan did not differ in how they rated the advertisements, we saw clear differences in the self-reported number of drinks consumed per socializing occasion, with a higher slant for those in Michigan (see Figure 7),  $t(1042) = -2.69, p < .01$ .

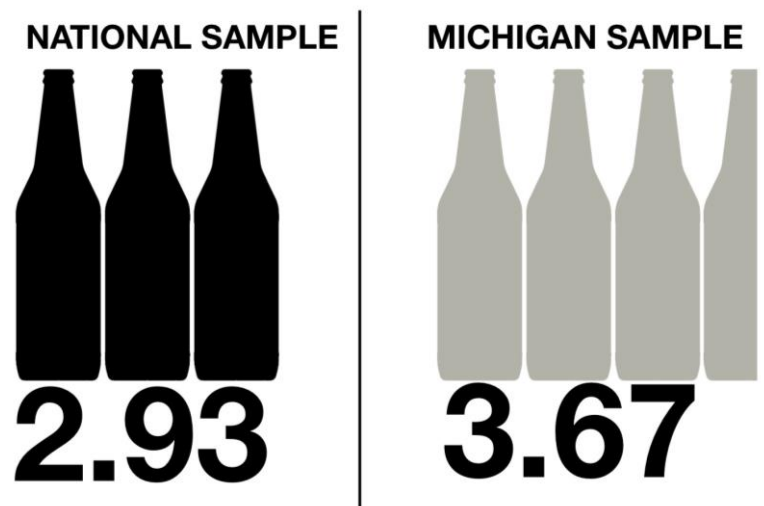


Figure 7. U.S. versus Michigan youth drinking

When asked to rate the ads and their behavioral intentions upon seeing those ads, underage youth did not exhibit differences in how they rated soda ads as a function of the models' age. In other words, they showed greater favorability and readiness to like, share, and comment on ads featuring soda brands, regardless of the age of the model. However, our findings showed that models' age made a difference when evaluating beer ads on Instagram. There was greater favorability and viral behavioral intentions for ads featuring young adults (21-24 years old), older adults (above 30 years old), and underage youth (under 21 years old) (Aad:  $F(2, 1076) = 29.97, p < .001, \eta^2_p = .05$ ;  $F(1, 1076) = 2.43, p .089, \eta^2_p = .01$ ). This same pattern was observed when we asked participants to indicate their intentions to consume alcohol

upon seeing the ads. Ads featuring young adults (21-24 years old) were strongest in motivating underage youth participants to drink, followed by older adult and underage models, respectively (see Figure 8).

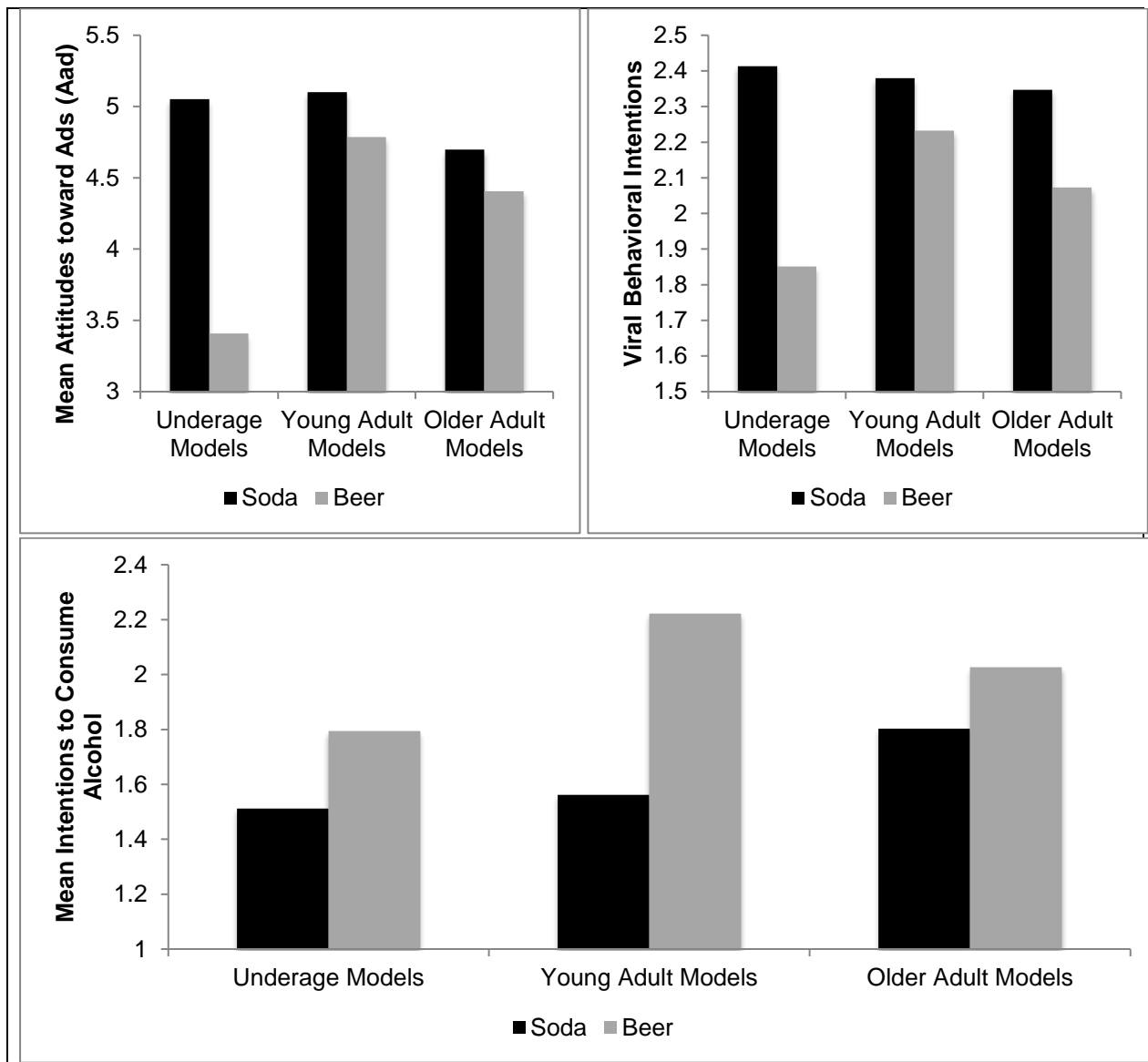


Figure 8. Aad, VBI, and ICA for beer and soda ads, by models' age

## DISCUSSION & CONCLUSIONS

The results of both studies clearly show that the perceived age of models in advertisements carries significant impact on attitudes toward those ads, participants' readiness to engage with them online, and more importantly, the likelihood of desiring alcohol consumption upon exposure to these ads. The significant effects hold for beer, but not for soda. Two separate studies, relying on two distinctly different methods, both confirm this significance. Our findings from Study 1 also showed differences in cognitive and affective processing,

where beer ads with younger-looking models led to greater attention and more pleasant emotional responses.

The unique age of our samples (18-20 years old) is of great importance to understanding what our findings mean. Legally, these underage youth are unable to purchase alcohol, yet due to their socialization experiences – much of which rests upon living on a college campus where alcohol consumption availability is met with life changes of increasing independence – alcohol is accessible. Unfortunately, alcohol use and overuse during this critical age is a predictor of problematic drinking in the future, which comes with all sorts of health and economic problems to the individual, the society, and the world. Alcohol advertisers are keen on targeting this specific population, as they are the ‘next-in-line’ to be loyal consumers of their brands.

From a policy perspective, this provides empirical support for regulation of the perceived age of models in beer advertisements. But while common sense might suggest a policy preventing depiction of models who appear to be below legal drinking age, our findings suggest it is not models who appear underage that present the greatest appeal to these underage consumers, rather it is the depiction of models who appear to be just over 21 that most appeal to these young people. Self-regulatory codes currently are premised on the assumption that models should appear to be at least 21. The Beer Institute’s Advertising and Marketing Code (2015) states:

*Models and actors employed to appear in beer advertising and marketing materials should be a minimum of 25 years old, substantiated by proper identification, and should reasonably appear to be of legal drinking age.*

This policy seems rational and might even make the beer industry appear conscientious about supporting the drinking age law. The studies here suggest, however, that this policy is inadequate if the policy goal is to avoid promoting underage drinking, as this actually allows advertisers to hit the “sweet spot” for affecting 18-20 year olds’ intent to consume alcohol.

There are a number of additional implications for our findings. First, due to the nature of social media and mobile communication, underage youth are not only able to access materials online that promote the use of alcohol, but are also heavily targeted by alcohol marketers and advertisers (Barry et al., 2015). The regulation of what happens online is rather vague and does not adequately address the complexity of the online environment. Policy makers have an opportunity to examine this particular situation and provide evidence that not only the sheer exposure to alcohol advertisements on social media encourage youth to drink and drink more heavily, but also the nature of the advertisements themselves – specifically the models they include – matters.

Second, our findings should also be weighted against prominent health risks associated with alcohol use and overuse. Given technology affordances and ease of accessibility to social media, advertisements like the ones we have included in our studies, are readily

available. Such availability encourages youth to drink and engage in early onset of drinking, which has potential health risks in the short- and long-term.

Finally, our findings highlight a magnified lens on the state of Michigan, given the high prevalence and intensity of social drinking among underage youth compared to other United States. This also suggests that the opportunity for negative effects of alcohol advertising in Michigan are also magnified; something policy makers should carefully consider.

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