Published in final edited form as:

Addict Behav. 2016 February; 53: 125–131. doi:10.1016/j.addbeh.2015.10.003.

I Like People Who Drink Like Me: Perceived Appeal as a Function of Drinking Status

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Abstract

Introduction—Individuals rate opposite sex faces as more attractive after consuming or being primed with alcohol. However, other traits such as intelligence and likeability have not been examined and might vary as a function of information about one's drinking habits. We expected social drinkers to be rated more positively than heavy drinkers, abstainers, or recovering alcoholics. We further hypothesized that faces with similar drinking habits to participants would be rated as more appealing.

Methods—Five hundred ninety-four undergraduates viewed 25 opposite sex faces randomly paired with drinking information, and rated each face on perceived appeal.

Results—Hierarchical linear models revealed that social drinkers were rated as most appealing, as expected. Unexpectedly, recovering alcoholics were rated as the next most appealing, followed by abstainers, then heavy drinkers. The interaction between drinker type and participants' own drinking predicting ratings indicated that the heavier the participant drinks, the more favorably they rated heavy drinkers compared to other types of drinkers. Thus, as expected, ratings varied as a function of participants' own drinking; however, ratings did not vary as a function of participants' alcohol-related problems.

Conclusions—Findings support hypotheses in that social drinkers were generally perceived as appealing compared to other drinker types, and ratings tended to be influenced by participants'

Authors 1, 2, and 7 analyzed the data, created tables and figures, and contributed to writing the results section. Author 3 wrote the discussion section. Author 4 wrote the perceptions of drinking and current study pieces of the introduction. Author 5 wrote the college drinking and social influences on drinking pieces of the introduction. Author 6 wrote the method section. All authors contributed to and have approved the final manuscript.

Conflict of Interest

All seven authors have declared no conflict of interest.

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Contributors

own drinking. Individuals' prototypes and norms regarding drinking may influence how they perceive others when others' drinking habits are known. This might be especially important to consider with heavy drinkers who may seek out others who drink similarly, which could reinforce problematic drinking.

Keywords

attractiveness; a	alcohol; person	perception; of	irinker prot	otypes	

1. Introduction

1.1. Drinking and Social Influences

An estimated 35-44% of college students are 'heavy episodic drinkers' (consuming more than five drinks in a row during the past two weeks; Johnston et al., 2014; Substance Abuse and Mental Health Services Administration, 2009; Wechsler et al., 2002). These heavy drinking patterns are associated with problems ranging from academic difficulties and hangovers (Hingson et al., 2005; Hingson, 2010; Wechsler et al., 2000; Wechsler et al., 1994), to risky sexual behavior and sexual assault (Abbey et al., 2003; Kaysen et al., 2006; Koss & Gaines, 1993; Larimer et al., 1999). Accordingly, the U.S. Surgeon General has declared the reduction of heavy drinking among college students to be a major health goal for the nation (U.S. Department of Health and Human Services, 2009). Thus, factors such as social influences that impact problematic alcohol use should be further examined. Prior research focusing on links between social attributes and drinking indicate that during college, peers are the primary means of guidance and support for most undergraduates, and exert greater impact on behavioral decisions than familial or biological influences (Berkowitz & Perkins, 1986; Borsari & Carey, 2001). Further, social influence is identified as one of the most consistent and strongest predictors of problem alcohol use among college students (e.g., Borsari & Carey, 2003; Neighbors et al., 2007). Importantly, alcohol intoxication is known to alter perception such that potential sexual partners appear more attractive, a phenomenon anecdotally referred to as "beer goggles" (Kruse & Fromme, 2005; Pennebaker, 1979). Mere exposure to alcohol has also been shown to increase ratings of attractiveness (Friedman et al., 2005), which leads to the examination of the relationships between patterns of alcohol consumption and perceptions of others.

1.2. Perceptions of Drinking

A small but growing body of literature focuses on college students' perceptions of alcohol consumption, other's drinking behaviors, and what constitutes problematic drinking. Regarding general perceptions of alcohol use, research has demonstrated that college students perceive alcohol use as a normative and even critical part of the college experience (e.g., DeLamater & Myers, 2007). A qualitative study that explored the link between college and post-college drinking revealed that college students perceive distinct subjective norms and societal attitudes toward heavy drinking in college in comparison to post-college graduation (Colby et al., 2009). Specifically, themes revealed that the large majority of these students perceived heavy drinking during college to be acceptable, even expected. Students also believed their own personal attitudes were consistent with broader societal attitudes

(Colby et al., 2009). Undergraduates' perceptions of heavy and problem drinking specifically also appear to be fluid and potentially context-specific (Segrist & Pettibone, 2009). One investigation found that individuals seen drinking with friends or as part of a group are not perceived as having a problem, whereas a person drinking alone was more likely to be viewed as a problem drinker (Segrist & Pettibone, 2009). This may be due to students assuming that a person drinking in a social context has different motives relative to a person drinking alone (Segrist & Pettibone, 2009).

Despite college drinking being viewed as acceptable by college students, prototypes or mental images conjured when one imagines a typical person engaging in a behavior such as drinking (Gerrard et al., 2008; Gibbons & Gerrard, 1995), vary based on different levels of drinking. Research has revealed that heavy drinkers and drunk individuals are typically described negatively by college students using words such as "annoying", "irresponsible", and "dependent" (van Lettow et al., 2013b). Moderate drinkers tend to be viewed more favorably (van Lettow et al., 2013a) and have been described as "determined", "amiable", and "healthy", with most students identifying as moderate drinkers. Abstainers tend to be rated favorably and have been described as "boring", "responsible", "unsociable", and "healthy". These drinker prototypes are generalizations about specific types of drinkers; however, little is known about how individuals are perceived if the only information provided about them is their drinking behavior.

Literature specifically evaluating college students' perceptions of peer drinkers in terms of likeability or attractiveness is relatively sparse, with findings generally showing that individuals have less favorable perceptions of heavy drinkers and relatively favorable impressions of lighter drinkers (Malouff et al., 1992; van Lettow et al., 2013a). However, no study, to our knowledge, has evaluated perceptions of specific traits (i.e., likeability, approachability, attractiveness, and intelligence) of opposite sex faces based on drinking information. Understanding initial impressions of peers based on their perceived drinking practices may help inform drinking interventions by illuminating factors associated with selection of heavier drinking peers, which may in turn affect perceived norms and overestimations of drinking norms (Wardell & Read, 2013). Furthermore, understanding how undergraduates perceive abstainers versus social or heavy drinkers is also a potentially important component that may have implications for prevention efforts.

1.3. Current Research

The present study seeks to extend the literature on understanding perceptions of college student risk behavior by applying labels of types of drinkers to unfamiliar opposite sex faces and asking participants to rate others based on their drinking habits. Based on previous literature, we expected that social drinkers would be most appealing in the attributes of attractive, likeable, intelligent, and approachable, followed by abstainers and recovering alcoholics, with heavy drinkers rated as least appealing overall. Furthermore, we expected that these attributes (likeability, intelligence, approachability, and attractiveness) would vary as a function of raters' drinking status and experience of alcohol-related problems, with heavy and problematic drinkers' ratings of pictures of heavy drinkers being more favorable than non-heavy and non-problematic drinkers' ratings of pictures of heavy drinkers.

2. Method

2.1. Participants and Procedure

Participants included 594 (85% female; Age: M = 21.94, SD = 4.80) heterosexual college students from a large university in the southern United States. The sample was racially diverse with the following racial backgrounds: 41.4% Caucasian, 0.7% Native American/ American Indian, 15.1% Black/African American, 23.6% Asian, 1.0% Native Hawaiian/ Pacific Islander, 3.8% Multi-ethnic, and 14.4% Other. Additionally, 33.1% of participants identified as Hispanic. Overall, 55% of the sample reported consuming at least 1 or more drinks per week on average in the past three months. Furthermore, the mean for drinks per week was 4.04 (SD = 6.75) and the mean for alcohol-related problems was 4.63 (SD = 9.66). However, of those who drank, the mean number of drinks per week was 7.27 (SD = 7.65) and the mean number of alcohol-related problems was 6.79 (SD = 10.80). Regarding relationship status, 39.6% of participants reported that they were exclusively dating, 33.8% reported being single, 14.4% reported casually dating, 8.5% were married or had a life partner, and 3.7% were engaged. After indicating their sex and sexual orientation, participants completed an experiment online in which they viewed opposite sex faces that were randomly paired with drinking information about the person pictured. Show-if survey programming was used such that individuals who indicated that they were heterosexual men were only shown faces of women. For each participant, faces were randomly paired with one of the following four drinker type descriptions, "This college student frequently drinks heavily", "This college student drinks socially on occasion", "This college student never drinks", or "This college student is a recovering alcoholic and therefore abstains from using alcohol". Thus, drinking information for each picture was randomly generated for each participant. Participants were then asked to rate how attractive, likeable, intelligent, and approachable they perceived the person pictured to be. Extra course credit was awarded to individuals for participating in the study.

2.2. Measures

- **2.2.1. Demographics**—Participants were asked to report on their age, sex, relationship status, ethnicity, racial background, and sexual orientation.
- **2.2.2. Alcohol consumption**—Alcohol consumption was measured via the Daily Drinking Questionnaire (DDQ; Collins et al., 1985; Kivlahan et al., 1990). The DDQ asks participants to report the number of standard drinks they consumed each day of a typical week (Monday-Sunday) over the last three months. The mean of participants' responses was then computed to reflect the average number of drinks consumed per week over the past three months.
- **2.2.3. Alcohol-related problems**—Alcohol-related problems were measured using a modified version of the Rutgers Alcohol Problems Index (RAPI; White & Labouvie, 1989). The RAPI assesses how often participants experienced 25 alcohol-related problems over the past three months with responses ranging from 0 (never) to 4 (more than 10 times). The RAPI was modified to include two additional items related to driving (e.g., "drove after

having two drinks" and "drove after having four drinks"). Scores were calculated by summing the 25 items ($\alpha = .96$).

2.2.4. Appeal—Each photograph was rated separately (using scales ranging from I to T), and participants were asked four questions; how attractive they found the person pictured; how likeable they found the person; how intelligent they found the person; and finally how much they would like to meet the person. Males rated only female faces and females rated only male faces. The mean attractiveness (male ratings α =.96; female ratings α =.96), likability (male ratings α =.96; female ratings α =.95; female ratings α =.91), and approachability (male ratings α =.97; female ratings α =.96) ratings were combined to measure perceived appeal, with higher scores representing more favorable ratings of the faces.

2.2.5. Stimuli—Faces were selected from a recent college yearbook. Photos were chosen to represent diversity of race and ethnicity. Pictures were pilot-tested for attractiveness and the top rated pictures of 25 men and 25 women were used for the present study. Drinker type assigned to each photo was random and varied across participants, thus eliminating the possibility of systematic differences due to attractiveness or other physical characteristics.

2.3. Analytic Strategy

Data consisted of a complex structure in which each individual rated four different types of drinkers (recovering alcoholic, social drinker, abstainer, heavy drinker) on four different criteria (approachable, likeable, intelligent, attractive). Both type of drinker and criteria were thus nested within individuals. We therefore used a multi-level approach to modeling the data (Raudenbush & Bryk, 2002). Analyses were conducted using PROC MIXED in SAS 9.3. We first examined ratings as a function of drinker type, criteria, and the interaction between drinker type and criteria. Because we were most interested in comparisons between heavy drinkers and other drinker types and attractiveness compared to other appeal categories, drinker type was dummy coded into three variables such that abstainer was compared to heavy drinker, social drinker was compared to heavy drinker, and recovering alcoholic was compared to heavy drinker. Furthermore, the criteria were dummy coded into three variables comparing approachable to attractive, likeable to attractive, and intelligent to attractive. For drinker type, heavy drinker was designated as the reference category, and attractiveness was specified as the reference category for criteria. Next, we examined ratings as a function of drinker type, criteria, participants' own drinking, and the interaction between drinker type and participants' own drinking. All analyses were run controlling for gender and with a Bonferroni correction to adjust for Type I error.

3. Results

3.1. Descriptives

Overall, social drinkers were rated most appealing (M = 3.69, SD = 1.46), followed by recovering alcoholics (M = 3.42, SD = 1.34), then abstainers (M = 3.27, SD = 1.32), with heavy drinkers rated as least appealing (M = 2.86, SD = 1.24). T-tests of mean differences for types of drinkers across criteria revealed that abstainers were rated as significantly more

appealing than heavy drinkers, t (589) = 20.84, p < .001, as were social drinkers, t (589) = 17.48, p < .001, and recovering alcoholics, t (589) = 12.81 p < .001, as expected. Also in line with expectations, social drinkers were rated as significantly more appealing than abstainers, t (593) = -9.73, p < .001, and recovering alcoholics, t (593) = 5.43, p < .001. Unexpectedly, recovering alcoholics were rated as significantly more appealing than abstainers, t (593) = -12.82, p < .001. Figure 1 displays means and standard errors for ratings based on drinker type and criteria.

3.2. Differences in ratings as a function of drinker type and criteria

To test the hypothesis that ratings of faces would differ based on criteria and drinker type, we ran a model with rating as the dependent variable and drinker type, criteria, and the interaction between drinker type and criteria as predictors, controlling for gender. Overall, results indicated a main effect of gender, F(1,7078) = 73.39, p < .001, a main effect of drinker type, F(3, 7078) = 78.54, p < .001, a main effect of criteria, F(3, 7078) = 2375.43, p < .001, and a significant interaction between drinker type and criteria, F(9, 7078) = 29.04, p < .001. HLM results representing specific contrasts are presented in Table 1. Results for drinker type were as we had hypothesized in that recovering, social, and abstaining individuals were rated as more appealing than heavy drinking individuals. Results for criteria indicated that approachability of the individual was rated lower than attractiveness, whereas ratings of intelligence and likeability were higher than ratings of attractiveness. Interaction results represent specific contrasts versus attractiveness ratings of heavy drinkers. All of the nine contrasts were rated significantly higher in appeal relative to the attractiveness of heavy drinkers. Thus, recovering individuals were rated as more approachable, more intelligent, and more likeable in comparison to attractiveness ratings for heavy drinkers. Similarly, social drinkers and abstainers were rated higher than heavy drinkers in each of the three criteria (approachable, likable, and intelligent) relative to the attractiveness of heavy drinkers.

3.3. Differences in ratings as a function of drinker type and alcohol consumption

Next, we examined ratings as a function of drinker type, criteria, participants' own drinking, and the interaction between drinker type and participants' own drinking while controlling for gender. Main effects were consistent with the results reported above. Moreover, as hypothesized, there was a significant interaction between drinker type and participants' own drinking, F(3, 6247) = 4.61, p < .01. HLM results representing specific contrasts are presented in Table 2. Interaction results represent specific contrasts versus ratings of heavy drinkers and participants' own drinking. Results suggest that, overall, participants rated other faces as more appealing than heavy drinkers; however this was less true if the participant reported consuming larger amounts of alcohol. Specifically, the difference in mean ratings for social drinkers, t (6247) = -3.67, p < .001, and abstainers, t (6247) = -2.30, p = .02, relative to heavy drinkers was less for those who reported consuming more alcohol. Additionally, the difference in mean ratings for recovering individuals, t (6247) = -2.18, p= .03, was marginally less compared to heavy drinkers for individuals who reported higher levels of drinking. However, the three-way interaction between drinker type, criteria, and alcohol consumption was not significant, F(9, 6226) = 0.62, p = .78. Thus the differences in ratings for drinker type and criteria did not differ as a function of raters' own drinking.

3.3. Differences in ratings as a function of drinker type and alcohol-related problems

Next, we examined ratings as a function of drinker type, criteria, participants' own alcohol-related problems, and the interaction between drinker type and participants' alcohol-related problems, controlling for gender. Although we had expected that more problematic drinking would be associated with higher ratings for heavier drinkers, the interaction between drinker type and participants' alcohol-related problems was non-significant, F(3, 6683) = 1.47, p = .22. Thus, specific contrasts were not examined. Furthermore, the three-way interaction between drinker type, criteria, and alcohol-related problems was also non-significant, F(9, 6662) = 1.29, p = .24.

4. Discussion

The present study extends previous research by seeking to understand how ratings of opposite sex peers' attributes vary as a function of one's own drinking and experience of alcohol-related problems. We first hypothesized and found that, regardless of participants' own levels of drinking, faces designated as social drinkers were rated as significantly more appealing than those designated as abstainers, recovering alcoholics, and heavy drinkers. This result is in line with previous research which has evidenced that knowing social information about a target can affect how a perceiver views a target's physical characteristics (Quist et al., 2012) and, in turn, impact levels of attraction for the target (e.g., Barclay, 2010). Because drinking is often viewed as an essential part of interacting with others in college (e.g., DeLamater & Myers, 2007) and thus, a socially desirable behavior, it stands to reason that participants rated social drinkers as most appealing. In addition, the characterization that an individual is a social drinker may bring to mind alluring qualities related to the moderate drinker prototype. For instance, individuals may characterize social drinkers as affable, outgoing, and responsible with respect to drinking (and possibly responsible in other realms; van Lettow et al., 2013a).

Additionally, the present study found heavy drinkers to be the least appealing compared to all other drinker types. This result fits with our expectations and with other literature which has shown that heavy drinkers are often viewed unfavorably compared to light drinkers (Malouff et al., 1992). In addition, research has shown that heavy drinking often invokes two drinking prototypes: (1) the "negative excessive drinker" characterized as 'irresponsible' and 'volatile' and (2) the "uncontrolled excessive drinker", described as 'unordered' and 'dependent'; van Lettow et al., 2013a). Thus, the evocation of these negative, heavy drinking prototypes might lead participants to be more disapproving of heavy drinkers, and thus rate them more negatively.

Unexpectedly, we found that recovering alcoholics were rated as significantly more appealing than abstainers. However, the magnitude of the difference in means was relatively small, ($M_R = 3.43$, SD = 1.34; $M_A = 3.27$, SD = 1.32). There are several possibilities for this finding. For example, recovering alcoholics may be viewed in a slightly more positive light compared to abstainers because they are able to resist the temptations of drinking in a context where drinking is viewed as normative. Conversely, the prototype of an abstainer is often characterized by adjectives such as 'boring', 'reserved', and 'unsociable' (van Lettow

et al., 2013a). Both abstainers and recovering alcoholics were rated as less appealing than social drinkers but more appealing than heavy drinkers, as was expected.

Next, we examined similarity in drinking habits as a potential factor that may have influenced ratings. As hypothesized, we found that similarity in drinking habits did influence perceptions of opposite sex others, with ratings of faces varying as a function of participants' own drinking behavior. Although we found social drinkers were as rated most appealing across all participants, discrepancies between ratings of heavy drinkers compared to other drinker types (social, abstainer, and recovering alcoholic) were smaller among heavier drinkers. In other words, heavier drinkers tended to view other heavy drinkers more favorably and/or less different from other types of drinkers compared to the rest of the sample.

Heavier drinkers may view other heavier drinkers more favorably (or less negatively) because they share similar drinking habits and thus may perceive other heavier drinkers to be more similar to themselves (Montoya, Horton, & Kirchner, 2008). Further, heavier drinkers may have rated other heavy drinkers more positively (or less negatively) due to the false consensus effect (Ross et al., 1977; Marks & Miller, 1987), in which they overestimate how much people drink due to an egocentric bias. This misperception of drinking norms may then influence heavy drinkers to perceive consumption of large quantities of alcohol as being normative. Thus, classifying the target as a heavy drinker may not hold the same negative connotations for heavier drinkers. Another possibility is that rating other people based in part on how much alcohol they consume may make heavier drinking participants' excessive drinking behaviors more salient, which in turn, poses as an ego threat (a threat to a person's self-image); therefore, heavy drinkers may be motivated to rate other heavier drinkers as more appealing, perhaps in an attempt to save face (i.e., "Drinking excessively may not be so bad."). This justification of sorts may occur in naturalistic settings as well in which heavy drinkers view other heavy drinkers more favorably due to the similarity of their drinking and may avoid abstainers, recovering alcoholics, or light drinkers in an effort to avoid potentially feeling badly about their own heavy drinking compared to these others.

This finding has specific clinical implications, especially for heavy drinking college students. Generally, individuals tend to like others who are similar to themselves and thus spend more time around these similar individuals. Consistent with social network findings, homophily, describes the general tendency for individuals to associate with similar others (McPherson, Smith-Lovin, & Cook, 2001). This principle has also been demonstrated in college drinking using social network analysis (Barnett, Ott, & Clark, 2014). Virtually all empirically supported individually focused alcohol interventions currently available include social norms feedback components (Larimer & Cronce, 2007; Miller et al, 2013). Perceptions of social norms are demonstrably exaggerated and this is especially true for heavier drinkers. The present research provides insight into why this is likely to be the case, which could be useful in conversations with heavier drinkers. For example, "Why do you think your perceptions of typical drinking are higher than what the survey data shows?" Discussing exposure to similar others as a function of mutual attraction could help to reduce potential defensiveness evoked by receiving very discrepant feedback. In some cases it might be useful to discuss how associations with similar others are related to drinking, and

how changing one's drinking often co-occurs with changing associations with heavier drinkers. Finally, the current results lend support to the idea of targeting specific individuals for interventions as a means of changing drinking beyond the individuals targeted. For example, methods are available for identifying key members of social networks who have influence over others (Borgatti, 2006). Changing the behavior of a well-connected heavy drinker is likely to also impact his or her associates. For example, in a seminal study, Christakis and Fowler (2008) showed that the likelihood of quitting smoking was increased by 36% when a friend quit smoking. Findings from the present study may inform future investigations that target specific heavy drinkers in an effort to reduce drinking for that individual and his or her close associates.

Finally, we tested whether ratings of drinkers would vary as a function of participants' experiences of alcohol-related problems. Although we expected that participants who had experienced more alcohol-related consequences to rate heavier drinkers more favorably, we did not find evidence to support this. This may be because the nature of several specific alcohol-related consequences is inherently undesirable and not likely to be associated with favorable ratings of attractiveness even by heavy drinkers (e.g., passing out, throwing up, doing something embarrassing or shameful). Moreover, consequences were not explicitly included among drinker types. If we had included a problematic drinker type, we would have expected that more problematic drinkers would rate faces specified as problematic drinkers more favorably or less negatively than others.

4.1. Limitations

Some limitations should be considered in light of the current study's strengths. First, despite being the first investigation of its kind to experimentally explore perceptions of faces as a function of drinking information associated with opposite sex faces, the sample was comprised of college students; therefore the results of this study may not be generalizable to younger or older populations. Additionally, because participants were recruited from the psychology subject pool, the sample was comprised of substantially more females than males; thus, the study may not be truly representative of the male college students' perceptions. The sample was also comprised of a relatively light drinking sample (drinks per week M = 4.22; SD = 7.25) and may not be as indicative of heavier drinkers' perceptions, though the sample did capture variability in drinking. Finally, the focus of the present study was on heterosexual perceptions of attractiveness of opposite sex others based on their purported drinking status and therefore did not include perceptions of homosexual or bisexual individuals.

4.2. Future Directions

In the future, studies might explore whether participants' ratings of appeal vary among populations where mate or peer selection might be less of a concern. For instance, do these patterns of ratings of desirable attributes differ among married populations or older populations, since friendships and relationships in these populations might be more established? In addition, among which populations might similarity in drinking play more of a role? Relatedly, the sample in the present study was restricted to heterosexuals; thus, future studies should explore perceptions of drinker types among sexual minorities. Another

potential future direction would be to evaluate whether peers' appeal might differ as a function of individual differences, such as one's own experience of alcohol-related consequences, drinking identity, and/or drinking motives (e.g., drinking to enjoy a social event versus drinking to cope with stress). Another possible future avenue to explore is whether culture and/or religion might influence ratings of appeal. For example, it is possible that international students may have differing views of what is appealing depending on cultural norms and levels of acculturation. Finally, this work could extend previous studies which have considered the temporal direction of associations between perceived norms and drinking (e.g., Wardell & Read, 2013), by looking at specific associations among peers. Previous work in this area has examined global ratings of perceived norms with drinking. It would be interesting to look more closely at temporal associations between affiliations with specific peers based on perceptions of their drinking relative to one's own drinking.

4.3. Conclusions

Results from the current study suggest that individuals' perceptions of others are influenced, at least in part, by knowing about others' drinking patterns. Perceived similarity of drinking behavior did influence the extent to which individuals rated opposite sex faces as appealing; however, individuals' levels of alcohol-related problems did not significantly impact their ratings. These findings have important clinical implications, as perceived similarity in drinking may be especially important to consider among heavy drinkers. The present study found that heavy drinkers rated other heavy drinkers as more appealing, or less different from other types of drinkers, than did non-heavy drinkers. Thus, heavy drinkers may perceive other heavy drinkers to be more appealing and, as a result, they may be more drawn toward others who also drink heavily. This may place heavy drinkers at greater risk for problematic drinking since they may be socially influenced to drink more, especially if the people they are surrounding themselves with are even heavier drinkers. Moreover, being part of a social group that drinks heavily may make it more difficult for heavy drinkers to change their drinking habits. Future investigations might target heavy drinkers for interventions and examine whether changing their drinking affects the drinking of other individuals in their social networks.

Acknowledgments

Role of Funding Sources

Funding for this study was provided by the NIAAA Grant R01AA014576. NIAAA had no role in the study design, collection, analysis or interpretation of the data, writing the manuscript, or the decision to submit the paper for publication.

References

Abbey A, Buck PO, Zawacki T, Saenz C. Alcohol's effects on perceptions of a potential date rape. Journal of Studies on Alcohol. 2003; 64:669–677. [PubMed: 14572189]

Barclay P. Altruism as a courtship display: Some effects of third-party generosity on audience perceptions. British Journal of Psychology. 2010; 101:123–135. [PubMed: 19397845]

Barnett NP, Ott MQ, Clark MA. The relevance of network prominence and reciprocity of relationships for alcohol use and alcohol-related problems in a college residence hall network. Psychology of Addictive Behaviors. 2014; 28(4):980–989. [PubMed: 25528047]

Berkowitz AD, Perkins H. Problem drinking among college students: A review of recent research. Journal of American College Health. 1986; 35:21–28. [PubMed: 3771936]

- Borgatti SP. Identifying sets of key players in a social network. Computational & Mathematical Organization Theory. 2006; 12(1):21–34.
- Borsari B, Carey KB. Peer influences on college drinking: A review of the research. Journal of Substance Abuse. 2001; 13:391–424. [PubMed: 11775073]
- Borsari B, Carey KB. Descriptive and Injunctive Norms in College Drinking: A Meta-Analytic Integration. Journal of Studies on Alcohol. 2003; 64:331–341. [PubMed: 12817821]
- Chassin LA, Tetzloff C, Hershey M. Self-image and social-image factors in adolescent alcohol use. Journal of Studies on Alcohol. 1985; 46(1):39–47. [PubMed: 3974234]
- Chen K, Kandel DB. The natural history of drug use from adolescence to the mid-thirties in a general population sample. American Journal of Public Health. 1995; 85:41–47. [PubMed: 7832260]
- Christakis NA, Fowler JH. The collective dynamics of smoking in a large social network. New England Journal of Medicine. 2008; 358(21):2249–2258. [PubMed: 18499567]
- Colby SM, Colby JJ, Raymond GA. College versus the real world: Student perceptions and implications for understanding heavy drinking among college students. Addictive Behaviors. 2009; 34(1):17–27. doi:10.1016/j.addbeh.2008.07.023. [PubMed: 18774233]
- Collins R, Parks GA, Marlatt G. Social determinants of alcohol consumption: The effects of social interaction and model status on the self-administration of alcohol. Journal of Consulting and Clinical Psychology. 1985; 53:189–200. [PubMed: 3998247]
- DeLamater, JD.; Myers, JD. Social Psychology. Sixth Edition. Wadsworth; Belmont, CA: 2007.
- Friedman RS, McCarthy DM, Förster J, Denzler M. Automatic effects of alcohol cues on sexual attraction. Addiction. 2005; 100:672–681. [PubMed: 15847625]
- Gerrard M, Gibbons FX, Houlihan AE, Stock ML, Pomery EA. A dual-process approach to health risk decision making: The prototype willingness model. Developmental Review. 2008; 28(1):29–61. doi:10.1016/j.dr.2007.10.001.
- Gibbons FX, Gerrard M. Predicting young adults' health risk behavior. Journal of Personality and Social Psychology. 1995; 69(3):505–517. doi:10.1037/0022-3514.69.3.505. [PubMed: 7562392]
- Halsey LG, Huber JW, Bufton RJ, Little AC. An explanation for enhanced perceptions of attractiveness after alcohol consumption. Alcohol. 2010; 44:307–313. [PubMed: 20570085]
- Hingson RW. Magnitude and prevention of college drinking and related problems. Alcohol Research & Health. 2010; 33:45–54. [PubMed: 23579935]
- Hingson R, Heeren T, Winter M, Wechsler H. Magnitude of alcohol-related mortality and morbidity among U.S. college students ages 18-24: Changes from 1998 to 2001. Annual Review of Public Health. 2005; 26:259–279.
- Johnston, LD.; O'Malley, PM.; Bachman, JG.; Schulenberg, JE.; Miech, RA. Monitoring the Future national survey results on drug use, 1975-2013: Volume II, college students and adults ages 19-55.Vol. 424. Institute for Social Research, The University of Michigan; Ann Arbor: 2014. p. 30
- Kaysen D, Neighbors C, Martell J, Fossos N, Larimer ME. Incapacitated rape and alcohol use: A prospective analysis. Addictive Behaviors. 2006; 31:1820–1832. [PubMed: 16446044]
- Kivlahan DR, Marlatt GA, Fromme K, Coppel DB, Williams E. Secondary prevention with college drinkers: Evaluation of an alcohol skills training program. Journal of Consulting and Clinical Psychology. 1990; 58:805–810. [PubMed: 2292630]
- Koss MP, Gaines JA. The prediction of sexual aggression by alcohol use, athletic participation, and fraternity affiliation. Journal of Interpersonal Violence. 1993; 8:94–108.
- Kruse MI, Fromme K. Influence of physical attractiveness and alcohol on men's perceptions of potential sexual partners and sexual behavior intentions. Experimental and Clinical Psychopharmacology. 2005; 13:146–156. [PubMed: 15943547]
- Larimer ME, Cronce JM. Identification, prevention, and treatment revisited: Individual-focused college drinking prevention strategies 1999-2006. Addictive Behaviors. 2007; 32(11):2439–2468. [PubMed: 17604915]

Larimer ME, Lydum AR, Anderson BK, Turner AP. Male and female recipients of unwanted sexual contact in a college student sample: Prevalence rates, alcohol use, and depression symptoms. Sex Roles. 1999; 40:295–308.

- Leavy RL, Dunlosky JT. Undergraduate student and faculty perceptions of problem drinking. Journal of Studies on Alcohol. 1989; 50:101–107. [PubMed: 2927124]
- Lyvers M, Cholakians E, Puorro M, Sundram S. Beer goggles: Blood alcohol concentration in relation to attractiveness ratings for unfamiliar opposite sex faces in naturalistic settings. The Journal of Social Psychology. 2011a; 151:105–112. [PubMed: 21375128]
- Lyvers M, Cholakians E, Puorro M, Sundram S. Alcohol intoxication and self reported risky sexual behaviour intentions with highly attractive strangers in naturalistic settings. Journal of Substance Use. 2011b; 16:99–108.
- Malouff JM, Schutte NS, Payne P. The negative social perceptions of being a heavy drinker. Journal of Alcohol and Drug Education. 1992; 38:30–38.
- Marks G, Miller N. Ten years of research on the false-consensus effect: An empirical and theoretical review. Psychological Bulletin. 1987; 102(1):72–90.
- McPherson M, Smith-Lovin L, Cook JM. Birds of a feather: Homophily in social networks. Annual Review of Sociology. 2001:415–444.
- Miller MB, Leffingwell T, Claborn K, Meier E, Walters S, Neighbors C. Personalized feedback interventions for college alcohol misuse: An update of Walters & Neighbors (2005). Psychology of Addictive Behaviors. 2013; 27(4):909–920. [PubMed: 23276309]
- Neave N, Tsang C, Heather N. Effects of alcohol and alcohol expectancy on perceptions of oppositesex facial attractiveness in university students. Addiction Research & Theory. 2008; 16:359–368.
- Neighbors C, Lee CM, Lewis MA, Fossos N, Larimer ME. Are Social Norms the Best Predictor of Outcomes Among Heavy-Drinking College Students? Journal of Studies on Alcohol & Drugs. 2007; 68:556–565. [PubMed: 17568961]
- NIAAA. What Colleges Need to Know Now: An Update on College Drinking Research. National Institutes of Health, DHHS; Bethesda, MD: 2007. (NIH publication no. 07–5010)
- Pennebaker J. Don't the girls get prettier at closing time: A country and western application to psychology. Personality and Social Psychology Bulletin. 1979; 5:122–125.
- Quist MC, DeBruine LM, Little AC, Jones BC. Integrating social knowledge and physical cues when judging the attractiveness of potential mates. Journal of Experimental Social Psychology. 2012; 48:770–773.
- Raudenbush, SW.; Bryk, AS. Hierarchical Linear Models: Applications and Data Analysis Methods. Second Edition. Sage; Newbury Park, CA: 2002.
- Ross L, Greene D, House P. The false consensus effect: An egocentric bias in social perception and attribution processes. Journal of Experimental Social Psychology. 1977; 13(3):279–301.
- Segrist DJ, Pettibone JC. Where's the Bar? Perceptions of heavy and problem drinking among college students. Journal of Alcohol and Drug Education. 2009; 53:35–53.
- Substance Abuse and Mental Health Services Administration (SAMSHA). Results from the 2008. U.S. Department of Health and Human Services. 2009. Retrieved from website: http://oas.samhsa.gov/nsduh/2k8nsduh/2k8Results.cfm
- U.S. Department of Health and Human Services, National Institutes of Health, National Institute of Neurological Disorders and Stroke, Office of Communications and Public Liaison. Autism Fact Sheet. 2009 (NIH Publication No. 09-1877).
- Van Lettow BV, de Vries H, Burdorf A, Norman P, Van Empelen P. Associations between abstainer, moderate and heavy drinker prototypes and drinking behaviour in young adults. Psychology & Health. 2013; 28(12):1407–1423. [PubMed: 23998482]
- van Lettow B, Vermunt JK, de Vries H, Burdorf A, van Empelen P. Clustering of drinker prototype characteristics: What characterizes the typical drinker? British Journal of Psychology. 2013; 104:382–399. [PubMed: 23848388]
- Wardell JD, Read JP. Alcohol expectancies, perceived norms, and drinking behavior among college students: Examining the reciprocal determinism hypothesis. Psychology of Addictive Behaviors. 2013; 27:191–196. [PubMed: 23088403]

Wechsler H, Davenport A, Dowdall G, Moeykens B. Health and behavioral consequences of binge drinking in college: A national survey of students at 140 campuses. JAMA: Journal of the American Medical Association. 1994; 272:1672–1677.

- Wechsler H, Kuo M, Lee H, Dowdall GW. Environmental correlates of underage alcohol use and related problems of college students. American Journal of Preventive Medicine. 2000; 19:24–29. [PubMed: 10865160]
- Wechsler H, Lee JE, Kuo M, Seibring M, Nelson TF, Lee H. Trends in college binge drinking during a period of increased prevention efforts: Findings from 4 Harvard School of Public Health College Alcohol Study surveys: 1993–2001. Journal of American College Health. 2002; 50(5):203–217. [PubMed: 11990979]
- White HR, Labouvie EW. Towards the assessment of adolescent problem drinking. Journal of Studies on Alcohol. 1989; 50:30–37. [PubMed: 2927120]

Highlights

- > This experiment evaluated appeal as a function of drinker type and own drinking.
- > Photos of faces were randomly paired with drinking information and rated on appeal.
- > Social drinkers were rated as significantly more appealing than other drinker types.
- > Similarity in drinking between raters and faces influenced ratings of appeal.

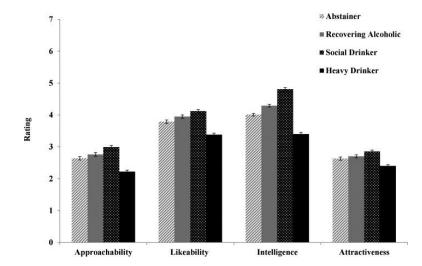


Figure 1. Mean ratings with standard errors by drinker type and criteria. Note. N = 594.

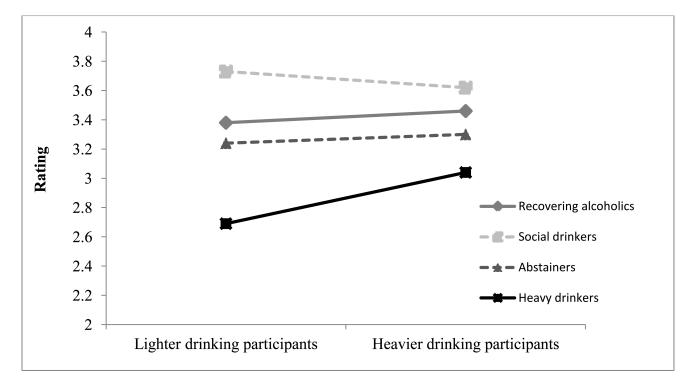


Figure 2.Ratings as a function of the interaction between drinker type of the face and participants' own alcohol consumption.

Table 1

Main effects and interactions for drinker type and criteria, controlling for gender, with ratings as the outcome and heavy drinker and attractiveness as the reference groups.

Criterion	Predictor	β	SE β	t	p
	Gender	345	.049	-7.48	<.001
	Recovering alcoholics	.207	.049	4.20	<.001
	Social drinkers	.321	.049	6.50	<.001
Ratings	Abstainers	.158	.049	3.20	<.001
	Approachability	131	.033	-4.00	<.001
	Likeability	.710	.033	21.77	<.001
	Intelligence	.728	.033	22.32	<.001
	Approachability of recovering alcoholics	.181	.046	3.92	<.001
	Likeability of recovering alcoholics	.201	.046	4.36	<.001
	Intelligence of recovering alcoholics	.427	.046	9.26	<.001
	Approachability of social drinkers	.236	.046	5.11	<.001
	Likeability of social drinkers	.213	.046	4.61	<.001
	Intelligence of social drinkers	.698	.046	15.16	<.001
	Approachability of abstainers	.141	.046	3.06	.002
	Likeability of abstainers	.129	.046	2.80	.005
	Intelligence of abstainers	.276	.046	5.99	<.001

Note. N = 594.

Table 2

Main effects and interactions for drinker type, criteria, and participants' own alcohol consumption, controlling for gender, with ratings as the outcome and heavy drinker and attractive as the reference groups.

Criterion	Predictor	β	SE β	t	p
Ratings	Gender	335	.048	-7.97	<.001
	Approachability	.013	.018	.74	.458
	Likeability	.853	.018	48.31	<.001
	Intelligence	1.083	.018	61.30	<.001
	Recovering alcoholics	.403	.042	9.56	<.001
	Social drinkers	.590	.042	14.01	<.001
	Abstainers	.295	.042	7.01	<.001
	Drinks per week	.018	.005	3.91	<.001
	Drinks per week X Recovering alcoholics	014	.006	-2.18	.029
	Drinks per week X Social drinkers	023	.006	-3.67	<.001
	Drinks per week X Abstainers	015	.006	-2.30	.021

Note. N = 594.