Drinking to reach the top: Young adults' drinking patterns as a predictor of status within natural drinking groups

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Drinking to Reach the Top:

Young Adults’ Drinking Patterns as a Predictor of Status within Natural Drinking Groups
Abstract

In this study we examined associations between young adults’ drinking patterns and social status within their natural drinking groups (NDGs) and assessed gender differences in these relationships. Same-sex NDGs \((n = 104)\) on route to a bar district were recruited and completed a peer-nominated measure of within-NDG status. In a follow-up online survey, participants \((n = 293; 174 \text{ men and 119 women})\) reported their usual drinking pattern within the past year. Hierarchical Linear Modeling revealed that men who engaged in more frequent heavy episodic drinking (HED) (both for 5+ and 8+ drinks in one sitting) and women who drank more frequently were nominated as occupying higher-status positions within their NDGs compared to their peers who drank less. Further, for both men and women, drinking more than one’s peers during one’s heaviest drinking occasion in the past year was also associated with higher within-NDG status. These findings suggest that higher social status is associated with riskier drinking patterns and have important implications for prevention programming.

**Keywords:** Alcohol consumption; heavy episodic drinking; young adults; natural drinking groups; status.
1. Introduction

Alcohol consumption in young adulthood is largely a social activity (Borsari & Carey, 2001; Demant & Järvinen, 2011; Lange, Devos-Comby, Moore, Daniel, & Homer, 2011), which is linked to many serious harms, such as injury, violence and later alcohol problems (Adlaf, Demers, & Gliksman, 2005; Hingson, Zha, & Weitzman, 2009). To help inform prevention initiatives, it is important to identify positive social attributes that are associated with frequent and heavy drinking by young adults because these associations might reinforce risky drinking practices. This study focuses on one such attribute – social status within one’s peer group.

Through regular drinking, young adults attempt to portray themselves to peers as being gregarious and fun (Demant & Järvinen, 2011; Engels, Wiers, Lemmers, & Overbeek, 2005) and tend to view others who refrain from drinking as aloof, reticent and/or dull (Demant & Järvinen, 2011). Thus, more frequent drinking may be associated with increased social status. Also, heavy episodic drinking (HED) – the consumption of a large number of drinks in one sitting – can function as a bonding activity for young adults (Nezlek, Pilkington, & Bilbro, 1994), particularly through the joint experience of drunkenness (Demant & Järvinen, 2011). Moreover, young adults tend to equate HED with status-related traits, such as being tough, cool, and outgoing (Demant & Järvinen, 2011) and, for young men, the tolerance of large amounts of alcohol is perceived as an indication of power and masculinity (Campbell, 2000; Peralta, 2007; Tomsen, 1997). Given these positive perceptions related to heavy drinking and social standing in young adult peer groups, both engagement in HED and demonstrating tolerance for large quantities of alcohol relative to one’s peers are likely to be particularly important in helping young adults achieve and maintain positive and powerful social standing among peers (Allen et al., 2005).

The link between drinking behavior and status is supported by relevant theory.
Social Identity Perspective (Hogg, 2005) posits that higher-status group members engage in the most normative behavior in the group and, in Western culture, heavy drinking is considered normative among young adults (Borsari & Carey, 2001). Further, the popularity-socialization hypothesis (Allen et al., 2005) suggests that popular youth are the most attuned to and socialized by prevailing norms of the larger peer culture and are especially susceptible to normative mild-to-moderate risk behaviors, such as heavy alcohol use (Laursen, Hafen, Kerr, & Stattin, 2012).

Extant research, demonstrating a positive association between drinking and peer status, has focused primarily on adolescent samples (Diego, Field, & Sanders, 2003; Mayeux, Sandstrom, & Cillessen, 2008; Pearson, Sweeting, West, Young, Gordon, & Turner, 2006). However, Phua (2011) revealed that young men with higher status positions in their fraternities’ organizational hierarchies drank more heavily in the presence of peers than lower status members (Phua, 2011). Further, we recently conducted the only study, to our knowledge, on the association of young adults’ drinking on a single occasion with their social status within their natural drinking group (NDG) that night (authors blinded for review). We found that in both male and female NDGs, members with higher peer-nominated status were more likely to be intoxicated and to consume more drinks that night compared with lower-status members. This was especially true for members of heavier-drinking groups. These results likely imply that higher-status group members are heavier drinkers in general. However, results might also reflect the situational effects of interacting with heavy drinking groups on any given night. Higher-status peers, who are often quite socially skilled (Allen et al., 2005), may be especially likely to modify their behavior to the immediate norms of a social situation (e.g., heavier drinking when with heavy drinking peers) but may not be heavier drinkers generally. Thus, research is needed to uncover how specific patterns of young adults’ drinking relate to status. The goal of the
present study, then, was to examine the association of within-NDG status with young men and women’s drinking patterns in the past year. In line with previous research (Demant & Järvinen, 2011; Diego et al., 2003; Mayeux et al., 2008; Pearson et al., 2006; Phua, 2011) and theory (Allen et al., 2005; Hogg, 2005), we hypothesized that: a) more frequent drinking, b) consuming a larger number of drinks during one’s heaviest drinking episode, and c) engaging in more HED occasions in the past year would be associated with higher within-peer group status (H1).

On the other hand, there are reasons why frequent drinking to excess may be less likely to be associated with high status. While young adults tend to promote intense drinking and acknowledge that occasionally becoming sick or unable to care for themselves is an inevitable part of intoxication, they also perceive these outcomes as signaling an inability to handle alcohol (Demant & Järvinen, 2011). People who drink to excess and appear “out of control” on a regular basis may be perceived by peers as burdensome, immature and annoying (Demant & Järvinen, 2011). Thus, in the present study, we also hypothesized that the positive association between within-peer group status and HED frequency would be weaker when examining HED episodes in which participants consumed 12 or more drinks, as opposed to episodes in which participants consumed 5 or more or 8 or more drinks (i.e., more normative drinking quantities) (H2).

Further, heavier drinking may be more likely to be associated with higher status for men than for women. Women tend to consume less alcohol than men (e.g., Tremblay, Graham, Wells, Harris, Pulford, & Roberts, 2010) and HED is more normative in young male as opposed to female peer groups (e.g., Nezlek et al., 1994; Thombs, Beck, & Mahoney, 1993). Young men report more pressure to engage in HED (Suls & Green, 2003) and less ability to turn down a drink than do women (see Borsari, 2001). Further, heavy drinking is tied to young men’s sense of masculinity (Campbell, 2000; Peralta, 2007; Tomsen, 1997) and to male bonding (Nezlek et
al., 1994). Thus, HED (as opposed to drinking in general) may be particularly important for young men’s status. In the present study, we hypothesized that the association between within-peer group status and frequency of HED would be: (a) stronger for men than for women and (b) stronger than the relationship between status and frequency of any drinking for men (H3).

2. Method

2.1. Procedure

This study was conducted as part of a larger project examining the alcohol-related experiences of young adult bar-goers (authors blinded for review). Teams of research assistants (RAs) recruited all-male or all-female groups of young adults (groups of 3-5 members) as they entered the downtown bar district in a mid-sized city in Southern Ontario, Canada on Thursday-Saturday nights in May-July 2012. Participants completed three surveys: (1) upon entry to the bar district (entry survey), (2) upon leaving the bar district (exit survey), and (3) a follow-up online survey. For the purposes of this study, we focus on the entry and online surveys only.

The “fixed line” method (Voas et al., 2006) was used to randomly select groups, with the first group to cross a predetermined fixed line on the sidewalk selected for recruitment. Interested groups who were of legal drinking age in Ontario (>19 years) were escorted to the data collection site, in a nearby, well-lit parking lot in the downtown core. First, participants were asked as a group to list the first names or nicknames of all participating group members so that RAs could write them down in preparation for the status ranking task (described below). Then, each group member completed a 10-minute (entry) survey at a private research station with an assigned RA. Afterwards, participants were reimbursed with $10 gift cards and given a pseudo gift card for either $50 or $100 that they could redeem by completing the 30-minute online survey (the amount varied because one component of the study was to test the effect of differing incentives on participation). Pseudo gift cards were labeled with the survey website and
an ID that allowed participants to access the online survey. Participants willing to share their phone numbers with RAs (78%) received a text message via a study cell phone that contained their ID and details of how to access the online survey. The large majority of participants completed the online survey within one week (87.2%) or month (96.3%) of initial recruitment, with a minority of participants completing the survey 1-3 months after initial recruitment (3.7%).

2.2. Participants

Entry survey participants were 357 young adults (218 men and 139 women; $M_{age} = 21.86$ years, $SD = 2.50$) recruited in 104 groups (63 male groups and 41 female groups) with an average of 3.4 members. Participating groups represented 27.2% of eligible groups approached (aged 19-29 years, community residents, and in same-sex, 3-5 member groups). Two-hundred-and-ninety-three participants (80% of men and 86% of women) completed the online survey. Independent samples t-tests revealed no significant differences between participants who did and did not complete the online survey on status $t(355) = -1.58, n.s.$ and total number of alcoholic beverages consumed on the night of the entry survey $t(284) = 0.68, n.s.$ A chi-squared test revealed no differences in gender distribution from entry to online survey, $\chi^2(1) = 1.94, n.s.$

2.3. Measures

2.3.1. Demographic Information. In the entry survey, participants reported their gender, age, height and weight. Height and weight scores were transformed into Body Mass Index (BMI) scores using the following calculation – weight(kg)/height(m)$^2$ – (Keys, Fidanza, Karvonen, Kimura, & Taylor, 1972). BMI is negatively related to intoxication (i.e., blood alcohol content) and thus individuals with higher BMIs can drink and tolerate more alcohol (Graham, Wilsnack, Dawson, & Vogeltanz, 1998; Wang, Nicholson, Jones, Fitzhugh, & Westerfield, 1992) and, particularly among men, their larger size might afford them greater social status. Thus, to control
for the possibility that BMI was a 3rd variable underlying the potential link between drinking patterns and status, it was included as a covariate in all analyses.

2.3.2. Within-Group-Status. In the entry survey, participants ranked their group members and themselves along 4 status-related dimensions in line with Resource Control Theory (Hawley, 1999): 1) makes group decisions; 2) has opinions that are listened to by other group members; 3) possesses popularity; and 4) with whom it is important to comply. Participants formed visuals of their NDG hierarchies by arranging a set of magnets labeled with group members’ names on a magnetic board, from the most to the least dominant members on each of the four dimensions. Peer-nominated status scores were calculated by averaging participants’ rankings from their peers across the 4 different dimensions. For ease of interpretation, we multiplied participants’ scores by 10, with higher scores indicating higher within-NDG status. The scale demonstrated strong internal consistency (α = .83). It has also been used successfully in the past to measure self-reported within-group status, demonstrating good convergent and discriminant validity and internal consistency (α = .76) (authors blinded for review).

2.3.3. Drinking pattern. Online survey participants were provided with a definition and visual representation of a Canadian standard drink – 341-ml. (12 oz.) of beer, 142 ml. (5 oz.) of wine, 43 ml. (1.5 oz.) of liquor, or 341-ml. (12 oz.) of a premixed drink or “cooler.” Participants recorded their drinking frequency during the past 12 months using a Likert scale from (1) never to (7) every day. Participants also recorded the maximum number of drinks they could recall having on a single occasion in the past 12 months. The following three variables were used to calculate HED frequency – “During the past 12 months, on a single occasion, how many times did you have: (1) 5 to 7 drinks? (2) 8 to 11 drinks? (3) 12 or more drinks?” HED5+ was measured as the sum of items 1, 2, and 3, HED8+ was the sum of items 2 and 3, and HED12+
was measured with item 3. Frequency of 12+ drinks was log-transformed to correct for positive skew.

2.3.4. Bar and Party Attendance. We controlled for reported frequency of party and bar attendance in our analyses to ensure that the potential relationship between status and drinking patterns was due to actual drinking behavior and not a tendency for higher-status people to attend or be invited to more social drinking events. Online survey participants were asked how often they had been to (1) a bar, club or pub, and (2) a party in the past year on a Likert scale from (1) never to (7) every day. Items were averaged to create a measure of bar and party attendance.

2.4. Analyses

To test our hypotheses, we used Hierarchical Linear Modeling (HLM; Bryk & Raudenbush, 1992) to account for the interdependence of scores (i.e., individuals nested within groups). We ran regression models with a Level-1, within-group random intercept analysis and a Level-2, between-group analysis. Status was the outcome variable. To avoid issues of multicollinearity, separate models were calculated for each alcohol consumption variable: (1) frequency of alcohol consumption; (2) maximum number of drinks consumed in one sitting; (3) frequency of HED5+; (4) frequency of HED8+; and (5) frequency of HED12+. All Level-1 predictors were group-mean centered so that we could compare participants’ scores to that of their group members.

Analyses were conducted separately for men and women to examine gender specific effects. In Step 1 of these analyses, we included the alcohol consumption variable to examine its unadjusted relationship with status and in Step 2, we included control variables – age, BMI, and frequency of bar and party attendance. To examine whether gender differences were significant,
we ran analyses using all participants, including group gender as a Level-2 predictor and included the cross-level interaction between drinking and group gender.

3. Results

Table 1 displays descriptive statistics and zero-order correlations for all Level-1 variables by gender. The presentation of correlational results are only for descriptive purposes and do not take into account the nested nature of our data.

Results of HLM analyses are presented in Table 2. As hypothesized, frequency of drinking (H1a), maximum number of drinks on a single occasion (H1b) and frequency of HED (5+ and 8+) (H1c) were positively related to status for the most part. For frequency of drinking, its association with status was found for women but not for men (although this gender difference was not quite significant when tested as an interaction in the full model, $p < .10$). Simple slope analysis revealed that women who drank more frequently than did others in their group had higher within-NDG status ($b = 0.46, t = 1.75, p = 0.08$). This relationship with frequency of drinking was not found for men ($b = -0.09, t = -0.553, p = 0.58$). For maximum number of drinks, its association with status was significant for women and became significant for men once control variables were added to the model. Analysis with the full sample produced a significant main effect of maximum number of drinks and no significant interaction with gender. Finally, for frequency of HED, both frequency of HED5+ and HED8+ were significantly related to status for men but not for women.

As shown in Table 2, our hypothesis (H2) that HED would be less strongly related to status when it involved very high consumption levels (i.e., 12+ drinks) than for lower levels (5+ and 8+) was supported. In fact, HED12+ was not significantly related to status for men or
women in the gender specific analysis although it approached significance ($p < .10$) in the full sample analysis. No significant interaction with group gender was found.

We also hypothesized that frequency of HED would be more strongly related to status for men than for women (H3a). This hypothesis was only partly supported. Although relationships between status and HED were significant for men but not for women, the coefficients for women were positive and for HED5+ actually higher than the coefficient for men; plus, there were no significant gender by HED interactions. However, as hypothesized (H3b), the results did suggest that frequency of HED was more important for men than frequency of drinking generally, with statistical significance found for frequency of HED5+ and HED8+ but not for frequency of drinking.

4. Discussion

Our findings demonstrate an important link between young adults’ drinking patterns and status within their NDGs. Our findings are in line with past research (authors blinded for review; Demant & Järvinen, 2011; Diego et al., 2003; Mayeux et al., 2008; Pearson et al., 2006; Phua, 2011) and theory (Allen et al., 2005; Hogg, 2005), yet expand previous knowledge by: (1) demonstrating a link between status and drinking patterns and not just recent alcohol use, (2) clarifying specific drinking patterns associated with status and (3) identifying gender differences. Further, our results suggest that the relationship between status and drinking remains important after controlling for the frequency with which young people attend social drinking contexts (bars and parties).

As hypothesized, young men’s and women’s consumption during their heaviest drinking occasion (i.e., maximum number of drinks) during the past year was related to within-NDG status. This is in line with research suggesting that, for young men, the ability to tolerate large
amounts of alcohol is associated with “coolness”, power and masculinity (Campbell, 2000; Peralta, 2007; Tomsen, 1997) and drinking heavily is normative for men (e.g., Nezlek et al., 1994; Suls & Green, 2003; Thombs et al., 1993; Zimmermann & Sieverding, 2010). For young women, although past research demonstrates that they are more likely than young men to perceive their same-sex counterparts who drink excessively as promiscuous, unruly and/or irresponsible (Brooks, 2011; Lyons & Willott, 2008), this same research also finds that when peers as opposed to strangers are the target of young women’s perceptions, heavy drinking is perceived in a positive light, often as a sign that women can “keep up with the boys” (Demant & Järvinen, 2011; Lyons & Willott, 2008). Our results echo these latter findings and suggest the importance of addressing drinking and status-related concerns in both young men and women. However, the relationship between status and frequency of drinking for women only and the stronger relationship between status and HED for men than women suggest that it is frequent drinking for women that is more important in relation to status, while for men, HED appears more important. It should be noted though, that there was less power to detect significance for HED measures for women due to the smaller sample for women and the small proportions who consumed at the levels of 8+ or 12+.

We had also predicted that, although engaging in heavy drinking occasions more frequently would be associated with higher status, young people who repeatedly drank excessive amounts of alcohol (HED12+) would not be perceived by their peers to have higher status, potentially due to their likelihood of appearing “out of control” by peers and thus facing negative evaluations. Consistent with this argument, the relationship between HED12+ and status was nonsignificant in our study. Notably, however, lack of significance may be due to reduced statistical power, as fewer people reported higher levels of consumption. To further explore
whether young people differ in the degree to which they are affected by specific levels of alcohol consumption, research may benefit from relying on peer-reports of frequent out-of-control drinking rather than by measuring it indirectly via quantity of alcohol consumed. Rather than amount consumed, the degree of engagement in alcohol-related behaviors such as vomiting, being removed from drinking establishments, and requiring physical care from friends (Demant & Järvinen, 2011), may be particularly important in shaping peers’ perceptions of an (in)ability to handle alcohol and thus may affect young people’s within-NDG status.

Several limitations of this study should be noted. First, due to study design, we cannot comment on causal relationships between our variables. It is unclear if drinking pattern enhances young adults’ within-NDG status, or if higher-status people are more likely to engage in specific drinking practices. Likely these relationships are reciprocal, but longitudinal and experimental designs are needed to test causal directions within the relationship. Second, measures of alcohol consumption were based on recall, which allows for the possibility of some inaccuracy and socially-desirable responding. Third, we examined same-sex NDGs only. Future research is needed to examine how status hierarchies function within mixed-sex NDGs and their relationship with members’ drinking behaviors. Fourth, fewer women than men participated in our study, which resulted in less statistical power in our analyses with women. Future research needs to be done with a larger sample of women.

Overall, the present findings suggest that more emphasis should be placed on young people’s status-related concerns in prevention programming for alcohol use. Young adults’ drinking may be positively reinforced because it helps them achieve or maintain positive social standing among peers; however, it is particularly concerning that the riskiest forms of drinking are associated with higher status in the peer drinking group. Heavy drinking can put young
people at risk for significant health consequences related to immediate risky behaviors such as drinking and driving, physical fights and unprotected sex (see Courtney & Polich, 2009) and heightened risk for later alcohol dependence and abuse (Jennison, 2004; McCarty, Ebel, Garrison, DiGiuseppe, Christakis, & Rivara, 2004; O’Neill, Parra, & Sher, 2001). Educational programs should focus on teaching young people how to negotiate desires for positive social standing and at the same time adopt responsible drinking practices. Further, the potential social consequences of frequent out of control drinking could be communicated to young adults as a preventative measure to curb their risky drinking patterns.
References


