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## Day-to-Day Variations in High-Intensity Drinking, Expectancies, and Positive and Negative Alcohol-Related Consequences

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### Abstract

High-intensity drinking (i.e., women/men consuming 8+/10+ drinks in a day) is prevalent and associated with negative consequences. Occasions of high-intensity drinking have markedly high risk; however, previous research has not examined the predictors of these high-risk drinking days. The current study was designed to examine to what extent positive and negative alcohol expectancies predict high-intensity drinking and whether high-intensity drinking on a given day was associated with drinking consequences and their evaluations that day. Frequently-drinking college students ( $N=342$ ) participated in an intensive longitudinal study of drinking behaviors ( $N=4,645$  drinking days). Days with greater positive and negative expectancies were associated with high-intensity drinking. Days with high-intensity drinking were associated with reporting more positive and negative consequences and with evaluating positive consequences more favorably and evaluating negative consequences less favorably, compared to drinking days without high-intensity drinking. Given this, prevention and intervention efforts may consider specifically targeting high-intensity drinking events as a unique phenomenon.

### Keywords

extreme binge drinking; high-intensity drinking; alcohol; college; expectancies; consequences

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Approximately 35% of college students report *binge* drinking, defined as consuming five or more drinks (5+) on a single occasion in the past 2 weeks [1]. Frequency of binge (heavy drinking) episodes is an important indicator of risk and is positively correlated with negative consequences like injury, unplanned sex, and blackouts [2, 3]. Research has now begun to explore the occurrence and impact of *high-intensity drinking* [4, 5], defined as consuming at least twice the standard cutoff level for binge drinking, thus 10+ drinks or a sex-specific

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8+/10+ drinks for women/men [4, 6]. Over half of high school seniors who reported binge drinking at the 5+ level also reported at least one occasion of consuming 10+ drinks in the last 2 weeks (the latter reported by 10.5% of high school seniors in the U.S. [4]. About 20% of male first-year college students met the 10+ cutoff, and 8% of female first-year college students reported 8+ drinks [7]. The 10+ drinking threshold has been shown to have the greatest prediction of hangover symptoms, compared to other thresholds [8]. High-intensity drinking significantly increases the likelihood of alcohol-related negative outcomes [5], and may especially raise the risk of serious consequences like severe injury or overdose [9].

Most research has made between-person comparisons. Previous research has not yet examined how occasions of high-intensity drinking may differ from occasions of less extreme drinking for a given individual. Understanding when students are more likely to engage in high-intensity drinking and how factors such as alcohol expectancies, experienced consequences, and drinking contexts may be associated with high-intensity drinking occasions may be crucial to intervention efforts.

Alcohol outcome expectancies are beliefs about the positive and negative consequences that will result from drinking, such as increased sociability or aggression. Expectancies reliably predict drinking frequency, quantity, and the experience of alcohol-related consequences [10]. These beliefs are typically treated as stable traits [11, 12], rather than fluctuating products of past and present experiences, in both research and college drinking interventions [13, 14]. However, research [15–17] has shown that expectancies have significant within- and between-person variability, and they may serve as important proximal predictors of drinking behavior on a particular day. Given evidence of this variability, it is important to examine whether positive and negative expectancies predict high-intensity drinking and the experience of positive and negative consequences on a given day.

Like expectancies, the extent to which consequences are considered desirable or undesirable is not consistent across students or stable within a given individual [18, 19]. Some consequences may be more problematic in certain situations (e.g., a hangover on a weekday) or more rewarding in certain situations (e.g., more fun with friends). Viewing negative alcohol-related consequences as less aversive is predictive of increased drinking and greater consequences [20–22]. When examined at the individual level, more positive evaluations of increased fun/sociability predict greater alcohol use the following week, and less negative evaluations of physical/behavioral consequences of alcohol use predict greater alcohol consequences the following week [19]. The current study examines the extent to which occasions of high-intensity drinking are associated with positive and negative consequences and the ways these consequences are evaluated, after controlling for expectancies. The current study will help address critical unanswered questions about high-intensity drinking [6], the ways in which drinkers perceive these events, and potential targets for intervention.

The current study also includes contextual variables (i.e., where and with whom one drinks alcohol), as extant research has not examined associations between context and whether or not students engaged in high-intensity drinking and experienced consequences on a given day. Drinking contexts are potentially very important for understanding high-intensity drinking, as factors such as drinking with others and bar specials are associated with higher

levels of alcohol use [23–26], and weekends are associated with more drinking than weekdays [27, 28]. Thus, contextual variables for drinking with others, drinking at a bar or party, and drinking on weekend days are specifically examined.

Overall, the current study is designed to examine day-to-day variations in high-intensity drinking (8+/10+ drinks for women/men) among college students to determine (1) to what extent expectancies about drinking reported on a given day predict whether or not college students will engage in high-intensity drinking later that day; and (2) if high-intensity drinking on a given day increases the number of alcohol-related consequences on that day, and how high-intensity drinking is associated with the evaluations of consequences as positive or negative. It was hypothesized that greater positive expectancies and greater negative expectancies on a given day would be associated with high-intensity drinking; that high-intensity drinking would be associated with an increase in positive and negative consequences; and that those consequences would be perceived as more extreme (i.e., more favorable positive consequences and less favorable negative consequences).

## Method

### Participants

Participants included 342 undergraduate college students from a large, public university in the Northwest U.S. who were engaged in a larger study examining a daily process model of alcohol use, alcohol expectancies, and consequences (for details see [15]). Participants reported an average age of 20.1 years ( $SD=1.4$ ) and 51% were women. Most participants were white (75.2%), with 8.6% reporting being Asian American, 11.2% multiracial, and 5% other race/ethnicity.

### Procedures

Students ages 18–24, of freshman, sophomore, or junior standing, were randomly selected from the university registrar's list ( $N=8,923$ ). To be eligible for the larger study, students needed to complete the screening survey (compensation: \$10), own a mobile phone with a service contract and text messaging, and have consumed alcohol at least twice a week over the past month. Of the students who completed the screening survey, 16.8% met all criteria; 95.7% of those eligible then completed the baseline survey (compensation: \$30). The baseline survey was followed by an in-person training session (completed by 352 students; 68.2% of those eligible) on the Interactive Voice Response (IVR) system participants used to complete daily interviews three times a day for 14 days in each of the next four quarters. Daily IVR interviews of 10 minutes or less included a morning interview (9am–noon), afternoon interview (3pm–6pm) and evening interview (9pm–midnight). Students were compensated \$2 for each complete interview, plus a bonus of \$16 if they completed 36 of the 42 possible interviews for each 14-day period. Students received a text message at the start of an assessment window and again 30 minutes prior to the close of an assessment window if they had not yet completed the IVR interview. Data for the current analyses come from the afternoon and morning interviews. All procedures were approved by the University IRB.

Overall, there was a total of 15,103 daily reports, of which 36.2% ( $n=5,467$ ) were drinking days. Due to the lagged nature of the data coming from the afternoon assessment (reporting on expectancies for that evening) and the morning assessment (reporting on alcohol use and consequences the prior day), the present analyses include 342 people with data for at least one assessment completed in the afternoon and one the following morning. The number of days analyzed to examine each aim varied in accordance with study design and the nature of the outcome. Of the 5,467 drinking days, data on covariates (e.g., expectancies) were available for 4,645 days predicting high-intensity drinking and for 4,622 days predicting positive and negative consequences. There were 4,041 days with reports for evaluations of positive consequences experienced and 2,028 days with reports for evaluations of negative consequences experienced.

## Measures

**Demographics**—Sex (0=*woman*, 1=*man*), age at baseline, and membership in a fraternity or sorority (0=*no*, 1=*yes*).

**Alcohol expectancies**—Each afternoon, participants were asked, “If you were to drink tonight, how likely would you be to feel or do the following things?” [15]. Six positive expectancies (e.g., be more sociable) and seven negative expectancies (e.g., feel nauseated or vomit) were assessed. Responses ranged from 1=*very unlikely* to 9=*very likely*.

**High-intensity drinking**—Each morning participants were asked whether they drank any alcohol yesterday. For days on which drinking was reported, participants were asked to indicate how many standard drinks they consumed. Days with any alcohol use were coded as high-intensity drinking days (i.e., 1=8+/10+ *drinks* for women/men) or not high-intensity drinking days (i.e., 0=<8/10 *drinks* for women/men).

**Alcohol-related consequences and evaluations**—Each morning, participants who reported drinking the previous day were asked, “Did any of the following things happen to you as a result of your drinking yesterday?” Participants could respond *yes* or *no* to 13 alcohol-related consequence items [29], which mirrored the expectancy items. For the consequences endorsed, students were asked to evaluate, “How bad or good was that, from 1 to 9, where 1 is extremely bad and 9 is extremely good?”

**Drinking contexts and time trend**—In the morning interview, students indicated whether they were most often *alone* (0) or *with other people* (1) while drinking. They also reported whether they did most of their drinking (a) *at home* (reference category), (b) *at a bar or party*, or (c) *some other place*. Further, each drinking day was coded as being a weekend (1=*Thursday, Friday, and Saturday*) or weekday (0=*Sunday through Wednesday*). A time trend for week of study was coded 0 to 7.

## Plan of Analysis

To assess whether expectancies predicted high-intensity drinking later that day, logistic multilevel models were used to analyze drinking days (i.e., days on which any alcohol use was reported) nested within people. The dependent variable was whether or not participants

reported high-intensity drinking that day. Level 2 (between-person) predictors included sex, age at baseline, membership in a fraternity or sorority, and person-means of expectancies (i.e., likelihood of consequences). Level 1 (within-person) predictors included the various contexts of drinking and person-centered daily expectancies. For expectancies, the Level 2 predictor (e.g., person-means of expectancies) allowed us to test between-person differences based on aggregated daily scores, whereas the Level 1 predictor (e.g., person-centered daily expectancies) allowed us to test the extent to which individuals' reports of expectancies on a given day are associated with high-intensity drinking. Level 2 effects were included as controls accounting for average differences between people to isolate daily-level (Level 1) effects, or whether expectancies on a given day were associated with the likelihood of high-intensity drinking that day.

To assess whether high-intensity drinking was associated with same-day consequences, linear multilevel models were used to predict the number of positive and negative consequences experienced and the evaluations of these consequences. Person-means of high-intensity drinking (at Level 2) and high-intensity drinking on a given day (at Level 1) were added to the predictors described above. For each research question we conducted two models. In Model 1, the main predictors of interest were examined. In Model 2, additional covariates were added. Sensitivity analyses were conducted when outcomes departed from normality; substantive conclusions were similar across sensitivity analyses; results reported below are from the linear multilevel models.

## Results

### Descriptive Statistics

Descriptive statistics are in Table 1. Across 5,467 drinking days, 16.1% ( $n=882$ ) of drinking days were high-intensity drinking days. Across 342 students who reported alcohol use during the study, 67.0% ( $n=229$ ) of students reported high-intensity drinking on at least one day for which they provided data.

### Expectancies Predicting High-Intensity Drinking (Research Question 1)

The intraclass correlation (ICC) for high-intensity drinking was 0.36, indicating substantial variance both between (64%) and within (36%) persons. Results for the logistic multilevel models are in Table 2. Consistent with hypotheses, days with greater positive expectancies and greater negative expectancies were associated with greater odds of high-intensity drinking in Model 1 (without adjusting for covariates) and in Model 2 (with covariates).

In terms of covariates, at Level 2 (between-person), men had lower odds of high-intensity drinking; there was no significant difference by age. Fraternity/sorority membership was associated with having greater odds of high-intensity drinking across days, compared to not belonging to a fraternity/sorority. Greater person-mean values of positive expectancies and of negative expectancies were also associated with having greater odds of high-intensity drinking across days.

At Level 1 (within-person), there was a negative time trend; high-intensity drinking decreased across weeks in the study. Weekend days were associated with greater odds of

high-intensity drinking than were weekdays. Drinking at a bar/party (compared to drinking at home) was associated with greater odds of high-intensity drinking, although there were no significant differences for drinking in other locations or drinking with others (versus alone) in the multivariable model.

### **High-Intensity Drinking Predicting Consequences and Evaluations (Research Question 2)**

The ICCs for the consequences dependent variables were 0.35 for positive consequences, 0.14 for negative consequences, 0.38 for evaluations of positive consequences, and 0.26 for evaluations of negative consequences. Again, these levels indicate substantial variance both between- and within-persons. Results for the linear multilevel models are shown in Tables 3 and 4. Consistent with hypotheses, days with high-intensity drinking were associated with reporting more positive consequences, reporting more negative consequences, evaluating positive consequences more favorably, and evaluating negative consequences less favorably compared to drinking days without high-intensity drinking (in Model 2 only).

For covariates at Level 2 (between-person), there were no effects of sex, age, or fraternity/sorority membership on any of the four consequence-related outcomes. Person-means for expectancies were associated with consequences. Greater person-mean positive expectancies were associated with reporting more positive consequences, reporting more negative consequences, and evaluating positive (but not negative) consequences more favorably. Greater person-mean negative expectancies were associated with reporting fewer positive consequences, reporting more negative consequences, evaluating positive consequences less favorably, and evaluating negative consequences more favorably. Finally, greater person-means of high-intensity drinking were associated with reporting more positive and negative consequences, and more favorable evaluations of positive (but not negative) consequences.

At Level 1 (within-person), there was a time trend such that in later weeks of the study students reported fewer positive consequences, reported fewer negative consequences, evaluated positive consequences more favorably, and evaluated negative consequences less favorably than in earlier weeks of the study. Weekend days were associated with reporting more positive consequences and with evaluating negative consequences more favorably, compared to weekdays. Drinking with others was associated with reporting more positive consequences and more negative consequences compared to drinking alone. Drinking at a bar or party was associated with reporting more positive consequences, reporting more negative consequences, evaluating positive consequences more favorably, and evaluating negative consequences less favorably compared to drinking at home. Days with greater positive expectancies were associated with reporting more positive consequences, reporting more negative consequences, and evaluating positive consequences more favorably. Days with greater negative expectancies were associated with reporting more positive consequences and more negative consequences.

## **Discussion**

The current study examined high-intensity drinking among frequently-drinking college students using daily data collected during a total of 56 days across four college quarters. Almost two-thirds (65.0%) of the students who drank reported high-intensity drinking on at



least one of the sampled days, and 16.1% of all drinking days met sex-specific criteria for high-intensity drinking (8+/10+ drinks for women/men). This study contributes to the literature on high-intensity drinking [4, 7] by documenting daily-level associations among high-intensity drinking, expectancies, consequences, and evaluations of experienced consequences among college students. In particular, this study is the first to examine high-intensity drinking and drinking perceptions among the same individuals across repeated events, so that days with high-intensity drinking can be compared to days without high-intensity drinking.

The two primary research questions examined daily-level associations between alcohol expectancies and high-intensity drinking and daily-level associations between high-intensity drinking and alcohol-related consequences. Regarding expectancies, on drinking days that students reported greater positive expectancies, they were more likely to engage in high-intensity drinking. Days with higher positive expectancies were also associated with evaluating positive drinking consequences more favorably. On drinking days that students reported higher than usual negative expectancies, they reported more alcohol consequences, but their evaluations did not differ. Students may (correctly) have greater expectations for both positive and negative consequences on days that they intend to drink more alcohol, which should be explored with future research including intentions into similar models.

Regarding high-intensity drinking as a predictor of consequences, on days students engaged in high-intensity drinking they reported more positive consequences that were also viewed more favorably compared to non-high-intensity days, even after controlling for alcohol expectancies. These findings corroborate previous literature suggesting that positive consequences are a powerful motivating influence that drives alcohol consumption [19, 30–32]. Negative consequences also occurred on high-intensity days and were reported as worse than on non-high-intensity drinking days, although students may be willing to accept the negative consequences as part of the drinking experience because positive consequences are more commonly reported and may outweigh the less frequent negative consequences [30, 31, 33]. This willingness to accept negative consequences to achieve the more rewarding positive consequences should be examined in future studies. High-intensity drinking was more likely on weekends, and students reported experiencing more positive consequences and reported more favorable ratings of negative consequences on weekends compared to weekdays. The social context associated with weekend drinking (e.g., with friends, at parties) may mean that positive consequences such as being more social are more likely to occur. Furthermore, negative consequences experienced on the weekend may be viewed as a normative part of the drinking experience and less likely to interfere with academic and work responsibilities, resulting in less aversive ratings. Future research examining context-specific expectations and evaluations should help clarify this.

Effective interventions that target students' involvement in high-intensity drinking are needed. While interventions targeting specific high-risk events like 21<sup>st</sup> birthday celebrations can be effective [34, 35], this study shows that high-intensity drinking is prevalent and not restricted to rare occasions. High-intensity drinking on a given day was associated with experiencing more positive consequences and the positive consequences were rated more positively compared to non-high-intensity days. Therefore, high-intensity

drinking may be more reinforcing than more moderate drinking, which poses a challenge for intervention. Thus, interventions that focus predominantly on typical drinking may not decrease high-intensity drinking, particularly for frequently drinking college students. Similarly, past research has indicated that experiencing more positive consequences in a given week is associated with planning to drink more alcohol the following week [32]. We also found that high-intensity drinking on a given day was associated with experiencing more negative consequences and rating them as worse compared to non-extreme days. This is consistent with previous research reporting that less favorable evaluations of negative consequences were associated with lower alcohol use the following week [32], and suggests the potential utility of incorporating discussions of students' evaluations of consequences into individual-level interventions [36]. The relative weight given to the positive and negative consequences, and how students make decisions about future experiences based on these consequences, is an area for future research.

Drinking at a bar/party predicted engaging in high-intensity drinking on a given day, experiencing more drinking consequences, and viewing positive consequences more favorably and negative consequences less favorably compared to drinking at home. In addition, on days students drank with others they experienced more consequences (positive and negative) compared to days they drank alone; the social nature of the consequences that were assessed may partially account for this finding. The act of going out and socializing likely enhances the enjoyment that students obtain from drinking, while at the same time increasing risk for socially-relevant negative consequences, such as aggression or embarrassment over experiencing negative consequences (e.g., vomiting) in a social setting. Individual-level interventions may increase students' awareness of their surroundings prior to going out if they incorporate discussions of drinking locations and characteristics that may increase the risk of specific negative consequences.

Several limitations should be noted. First, data were collected at a single institution in 14-day bursts for four quarters and may not generalize across college campuses or across young adulthood. Second, students evaluated a consequence only if it was experienced on a given night. The number of consequences and the types of consequences experienced varied across days and people, so evaluation scores may refer to different sets of consequences on days with and without high-intensity drinking. Third, context questions included "drinking at bars/parties" as a single response option, so we were unable to separate these venues, despite the fact that high-intensity drinking at bars (especially by those under age 21) may have different policy implications. Finally, the amount of time spent drinking and the estimated blood alcohol concentration are not included.

Additional research examining a wider set of questions regarding where and with whom students engage in high-intensity drinking is warranted. Contextual factors may be known prior to (e.g., going to a party) or during the course of the drinking experience (e.g., unexpected free drinks), which would affect how such information is addressed in interventions. Future research should also examine developmental processes that may evolve as students gain experience with drinking. The current study found that students reported less high-intensity drinking and fewer consequences across the study period which could be an artifact of the repeated assessments or the result of changes in behavior, consequences,



and evaluations across college. A greater understanding of how students anticipate, experience, and evaluate high-intensity drinking days, and how these high-intensity (8+/10+ drinks) drinking days compare to with binge (4+/5+) drinking days, will inform prevention and intervention efforts to reduce the harm associated with college student alcohol use.

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### Highlights

- Positive and negative expectancies predicted extreme binge drinking that day.
- Days with high-intensity drinking had more positive and negative consequences.
- Positive consequences were rated more favorably on high-intensity drinking days.
- Negative consequences were rated less favorably on high-intensity drinking days.

**Table 1**

## Descriptive Statistics

<u>Level 2 (Between-Person)</u>	<u>M or %</u>	<u>SD</u>	<u>Range</u>
Male Sex	0.49		0–1
Age	20.1	1.4	18–24
Fraternity/Sorority Membership	0.55		0–1
Positive Expectancies Person Mean	5.5	1.1	1–9
Negative Expectancies Person Mean	2.7	0.9	1–5.7
<u>Level 1 (Within-Person)</u>			
Time Trend (i.e., week of study)	3.3	2.4	0–7
Weekend	0.42		0–1
Context			
Drinking Alone	0.07		0–1
Drinking with Others	0.93		0–1
Drinking at Bar/Party	0.47		0–1
Drinking at Home	0.41		0–1
Drinking – Other (Where)	0.12		0–1
Positive Expectancies	5.4	1.5	1–9
Negative Expectancies	2.8	1.2	1–9
High-intensity Drinking	0.16	0.37	0–1
Positive Consequences	3.0	1.9	0–6
Negative Consequences	0.8	1.1	0–8
Evaluations of Positive Consequences	6.6	1.1	1–9
Evaluations of Negative Consequences	3.9	1.6	1–9

*Note.*  $N=321$ – $342$  people,  $n=2,028$ – $4,645$  days. M=means for continuous variables,

%=percent for dichotomous variables, SD=standard deviation

**Table 2**

## Multilevel Models Predicting High-Intensity Drinking

<u>Level 2</u>	<b>Model 1</b>		<b>Model 2</b>	
	<b>OR</b>	<b>[95% CI]</b>	<b>OR</b>	<b>[95% CI]</b>
Male Sex	--	--	0.64*	[0.44, 0.93]
Age	--	--	0.89	[0.76, 1.05]
Fraternity/Sorority Membership	--	--	2.17***	[1.47, 3.22]
Positive Expectancies Person Mean	1.57***	[1.33, 1.85]	1.45***	[1.22, 1.72]
Negative Expectancies Person Mean	1.52***	[1.29, 1.78]	1.38***	[1.17, 1.62]
<u>Level 1</u>				
Time Trend (i.e., week of study)	--	--	0.94**	[0.09, 0.98]
Weekend	--	--	1.45***	[1.20, 1.76]
Context				
Drinking with Others <sup>a</sup>	--	--	1.66	[0.92, 3.02]
Drinking at Bar/Party <sup>b</sup>	--	--	1.88***	[1.47, 2.40]
Drinking – Other (Where) <sup>b</sup>	--	--	0.90	[0.61, 1.33]
Positive Expectancies	1.53***	[1.35, 1.74]	1.44***	[1.27, 1.64]
Negative Expectancies	1.53***	[1.39, 1.68]	1.46***	[1.33, 1.61]

Note.  $N=342$  individuals,  $n=4,645$  days.

\*  
p<.05,

\*\*  
p<.01,

\*\*\*  
p<.001.

<sup>a</sup>Reference Category is Drinking Alone.

<sup>b</sup>Reference Category is Drinking at Home.



Table 3

## Multilevel Models Predicting Alcohol-Related Consequences

	Positive Consequences		Negative Consequences	
	Model 1 B (SE)	Model 2 B (SE)	Model 1 B (SE)	Model 2 B (SE)
<u>Level 2</u>				
Male Sex	--	0.03 (.10)	--	0.04 (.05)
Age	--	-0.07 (.04)	--	-0.03 (.02)
Fraternity/Sorority Membership	--	-0.21 (.11)	--	-0.05 (.06)
Positive Expectancies Person Mean	--	0.73 (.04) <sup>***</sup>	--	0.08 (.02) <sup>***</sup>
Negative Expectancies Person Mean	--	-0.18 (.04) <sup>***</sup>	--	0.15 (.02) <sup>***</sup>
High-intensity Drinking Person Mean	0.21 (.07) <sup>**</sup>	0.16 (.06) <sup>**</sup>	0.17 (.03) <sup>***</sup>	0.11 (.03) <sup>***</sup>
<u>Level 1</u>				
Time Trend (i.e., week of study)	--	-0.11 (.01) <sup>***</sup>	--	-0.05 (.01) <sup>***</sup>
Weekend	--	0.11 (.04) <sup>*</sup>	--	-0.04 (.03)
Context				
Drinking with Others <sup>a</sup>	--	0.58 (.09) <sup>***</sup>	--	0.21 (.06) <sup>***</sup>
Drinking at Bar/Party <sup>b</sup>	--	0.46 (.05) <sup>***</sup>	--	0.19 (.04) <sup>***</sup>
Drinking – Other (Where) <sup>b</sup>	--	0.12 (.07)	--	-0.02 (.05)
Positive Expectancies	--	0.22 (.03) <sup>***</sup>	--	0.06 (.02) <sup>***</sup>
Negative Expectancies	--	0.12 (.02) <sup>***</sup>	--	0.12 (.02) <sup>***</sup>
High-intensity Drinking	0.31 (.02) <sup>***</sup>	0.17 (.02) <sup>***</sup>	0.34 (.01) <sup>***</sup>	0.28 (.01) <sup>***</sup>

Note.  $N=342$  people,  $n=4,622$  days

<sup>a</sup>Reference Category is Drinking Alone.

<sup>b</sup>Reference Category is Drinking at Home.

\*  $p<.05$ ,

\*\*  $p<.01$ ,

·100>d  
\*\*\*

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**Table 4**

Multilevel Models Predicting More Favorable Evaluations of Consequences

	Positive Evaluations		Negative Evaluations	
	Model 1 B (SE)	Model 2 B (SE)	Model 1 B (SE)	Model 2 B (SE)
<u>Level 2</u>				
Male Sex	--	0.01 (.07)	--	-0.13 (.12)
Age	--	0.02 (.03)	--	0.10 (.05)
Fraternity/Sorority Membership	--	-0.12 (.07)	--	-0.11 (.13)
Positive Expectancies Person Mean	--	0.37 (.03)***	--	0.09 (.06)
Negative Expectancies Person Mean	--	-0.16 (.03)***	--	0.16 (.06)**
High-intensity Drinking Person Mean	0.06 (.04)	0.08 (.04)*	-0.02 (.06)	0.01 (.06)
<u>Level 1</u>				
Time Trend (i.e., week of study)	--	0.02 (.01)*	--	-0.04 (.01)**
Weekend	--	0.00 (.03)	--	0.27 (.07)***
Context				
Drinking with Others <sup>a</sup>	--	0.03 (.06)	--	0.26 (.17)
Drinking at Bar/Party <sup>b</sup>	--	0.09 (.03)*	--	-0.23 (.08)**
Drinking – Other (Where) <sup>b</sup>	--	0.04 (.05)	--	-0.06 (.13)
Positive Expectancies	--	0.09 (.02)***	--	0.07 (.04)
Negative Expectancies	--	-0.01 (.02)	--	0.05 (.03)
High-intensity Drinking	0.08 (.01)***	0.05 (.01)***	-0.04 (.02)	-0.08 (.03)**

Note. Pos Eval N=339 people, n=4,041 days; Neg Eval N=321 people, n=2,028 days.

<sup>a</sup>Reference Category is Drinking Alone.

<sup>b</sup>Reference Category is Drinking at Home.

\* p<.05,

\*\* p<.01,

\*\*\* p<.001.