Drinking not thinking: A prospective study of personality traits and drinking motives on
alcohol consumption across the first year of university

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Highlights

- impulsivity predicted O-Week drinking beyond pre-university consumption
- this association was mediated by enhancement motives in women but not men
- impulsivity predicted rate of change in drinking over 6 months for men and women
- anxiety-sensitivity and hopelessness were not associated with alcohol consumption

Abstract

The aim of this 3-wave prospective study was to test impulsivity-related and anxiety-related traits and drinking motives as predictors of alcohol consumption during Orientation Week (O-Week), and the first six months of university life in on-campus college residents. Students from two residential colleges ($N=255$, 34.5% female) completed surveys of drinking frequency and quantity for the week prior to university entry, during O-Week, 3 and 6 months later. A brief personality screen for impulsivity, sensation-seeking, anxiety sensitivity and hopelessness was administered along with measures of drinking motives and alcohol consumption. Using moderated mediation analyses and multilevel modeling, impulsivity was found to be the best predictor of drinking variability at O-Week with enhancement motives mediating the effect. This mediated effect was moderated by gender with the indirect effect only occurring for women. Impulsivity was also predictive of drinking change over 6 months, with high impulsive students maintaining heavier levels of drinking (even when controlling for gender). The findings of this study further supports impulsivity as a consistent predictor of student alcohol misuse, even in environments with strong pro-drinking cultures.

Keywords: alcohol; motives; gender; impulsivity; personality; longitudinal

1. Introduction

Heavy drinking is a well-documented problem in Australian university students (Hallett et al., 2012). New residential college students are at a particular risk of drinking at high levels. Away from their families for the first time and surrounded by like-minded peers, drinking as a way of fitting in at a residential college is a highly influential factor in the amount and frequency of their future drinking behavior (Hughes, 2012). The first university social experience these students encounter is Orientation week (“O-Week”) – a period that typically involves alcohol-fuelled social events most nights of the week on most University campuses. Although college administrators have acknowledged the issue and some have moved towards alcohol-free O-Week activities, these are in a minority. For most residential colleges, O-Week can set up a culture of drinking to excess that continues into the students’ university years and beyond.

Although heavy drinking in university is common (Hughes, 2012), there are considerable individual differences in alcohol consumption across individuals. Personality traits play a particularly important role. Early-onset experimentation with alcohol is predicted in individuals who have impulsive or sensation-seeking temperaments (Tarter, Kirisci, Habeych, Reynolds, & Vanyukov, 2004). Impulsivity has been proposed as consisting of multiple facets, with differing facets associated with alcohol experimentation and progression (e.g., Dawe & Loxton, 2004). One facet, termed more generally as “impulsivity” (sometimes viewed as “rash impulsivity”, Dawe & Loxton) is defined as the tendency to act without forethought and an inability to inhibit behavior. A related facet, sensation seeking, is defined as the tendency to seek out exciting and novel experiences (Woicik, Stewart, Pihl, & Conrod, 2009). Two internalizing personality traits are also proposed as increasing alcohol consumption: anxiety sensitivity (the tendency to notice and be distressed by anxiety

symptoms) and hopelessness (to expect negative events, and inability to control future negative events and pervasive feelings of despondency, Woicik et al.).

Recent research has extended to examining potential mediators of these associations such as drinking motives, which are proposed to be proximal antecedents to drinking episodes. Enhancement motives (drinking to enhance experiences) and coping motives (drinking to cope with negative situations), in particular, have been found to be associated with greater alcohol consumption (Tobin, Loxton, & Neighbors, 2014). Recent studies have also identified gender-specific associations between motives and drinking. For instance, Lammers et al. (2013) found enhancement motives to play a more prominent mediation role between personality and binge drinking in adolescent boys, while for girls, coping motives mediated personality and binge drinking. Similarly, Magid et al. (2007) found enhancement motives mediated sensation-seeking and alcohol use in college men but not women, while Chandley et al. (2014) found coping motives mediated anxiety sensitivity and drinking use/problems in college women. The findings thus far suggest that women tend to drink to cope while men tend to drink for enhancement purposes.

A recent study investigated the mediating associations of these personality traits and drinking motives within college across twelve months (MacKinnon, Kehayes, Clark, Sherry, & Stewart, in press). Impulsivity-related traits tended to be associated with alcohol quantity via social (drinking to be social) and enhancement motives, while anxiety/hopelessness-related traits tended to be associated with drinking problems via coping and conformity (to conform to others expectations) motives. While this study used a longitudinal design, the analytic approach examined within and between subjects associations but did not test personality traits as predictors of drinking trajectories over time. Moreover, while gender was entered as a covariate, gender as a moderator of the effects was not tested. The current study specifically focused on the experience of undergraduate students entering the university for

the first time and controlled for pre-university drinking. We also chose a culturally-sanctioned heavy-drinking time period (Roche & Watt, 1999) to assess whether personality traits would still be associated with alcohol consumption beyond environmental forces and tested gender as a potential moderator.

Thus, the aim of this study was to assess personality and drinking motives predictors of the quantity of alcohol consumed by students in two residential colleges at a large Australian university prior to attending university, during O-Week, three and six months later (corresponding to late in the first academic semester, and in the second semester respectively). Personality traits were measured and analyzed as predictors of drinking during the high risk O-Week and the change in drinking over the course of the first six months. Drinking motives were assessed as potential mediators of drinking. Gender was assessed as a potential moderator of these effects. Based on previous literature, we tested the following hypotheses:

1. Personality traits (i.e., high impulsivity, high sensation seeking and high anxiety sensitivity) will be associated with greater alcohol consumption during O-Week.
2. Positive drinking motives (i.e., high enhancement motives, high social motives) will mediate impulsivity-related traits (i.e., impulsivity and sensation seeking) and drinking during O-Week while coping motives will mediate anxiety-related traits (i.e., anxiety sensitivity and hopelessness).
3. Impulsivity-related traits (i.e., high impulsivity, high sensation seeking) will be predictive of change in drinking over the first 6 months of university. Those high in impulsiveness/sensation-seeking, will maintain higher consumption relative to less impulsive/sensation-seeking students.

4. Gender will be tested as a potential moderator of the indirect effect of personality and alcohol consumption. Based on previous studies we expect enhancement motives to mediate the association for men and coping motives to mediate the association for women.

2. Method

2.1 Participants

A convenience sample of 255 university students in their first year of university at a metropolitan Australian city, and who were entering one of two residential colleges (34.5% female; $M_{\text{age}} = 18.09$ years, $SD_{\text{age}} = 1.21$ years, range = 17 – 25 years, 96% were aged 20 years or younger), agreed to participate in the study. One college was co-educational while the other was men-only. Ethical approval to conduct the study was obtained from the School of Psychology's Ethics Committee and approval and support for the study provided by the Heads of the residential colleges.

2.2 Procedure

Participants completed the questionnaires in a large group in each of the participating colleges under the supervision of the authors and staff of the residential colleges. Due to logistical constraints, one college (co-educational) completed the questionnaires at the beginning of O-Week along with the drinking diaries for the week prior to University. The diary of O-Week drinking was collected immediately after O-Week. The other (men-only) college completed their questionnaires and drinking diaries on the Monday night after O-Week. Although these data were collected at different times, there was no difference between the colleges on drinking during O-Week, SURPS, or DMQ scales¹. Drinking diaries were collected by the authors (RB & VW) with assistance from college residential advisors. To

¹ Any differences between colleges appear to be gender, rather than, college status-specific. For example, men in the coeducational college drank at similar levels during O-week ($M = 29.71$) as men from the male-only college ($M = 26.6$, $t(210) = .86$, $p = .389$) and significantly higher than the women in the same college ($M = 21.07$, $t(210) = 2.25$, $p = .03$). As such, gender was the focus of potential moderating effects rather than college.

enhance the response rate students went into a draw to win one iPad in each college and residential advisors were given iTunes vouchers for their participation.

2.3 Measures

2.3.1 Substance Use Risk Profile Scale (SURPS). The SURPS (Woicik et al, 2009) is a 23-item scale designed to measure four personality traits that are associated with increased risk for substance use: 1) Impulsivity; 4 items; e.g. *“I often don’t think things through before I speak”*, 2) Sensation Seeking; 4 items; e.g. *“I like doing things that frighten me a little”*, 3) Anxiety Sensitivity; 5 items: e.g. *“I get scared when I’m too nervous”* and 4) Hopelessness; 7 items; e.g. *“I feel that I am a failure”*. Participants indicate their agreement with each statement on a 4-point Likert scale from 1 = *strongly disagree* to 4 = *strongly agree*. In the present sample, each of the subscales had adequate internal reliability with Cronbach's alpha coefficients for a measure with relatively few items per scale (see Table 1) and are similar in magnitude as found in Conrod, Castellanos-Ryan, & Strang (2010). Although somewhat low, these alpha values are common in scales of broad traits using few items (Nunnally & Bernstein, 1994).

2.3.2 Drinking Motives Questionnaire Revised Short Form (DMQ-R SF).

Participants completed the 12-item DMQ-R SF (Kuntsche & Kuntsche, 2009). The DMQ-R SF measures four distinct motivations to use alcohol: enhancement e.g. *“because it’s fun”*, social e.g. *“because it improves parties and celebrations”*, conformity e.g. *“so I won’t feel left out”*, and coping e.g. *“to cheer up when I’m in a bad mood”*. Each three-item scale is scored using a 3-point Likert scale from 1 = *never* to 3 = *almost always*. Participants were instructed to consider all the times they had drunk alcohol in the last 12 months and to indicate how often they had drunk for each given motive. Although the Enhancement, Social, and Coping motives had adequate internal consistency for brief scales, the alpha coefficient

conformity motives was low (see Table 1). In part this may be due to the combination of few items per scale and the restricted range on the conformity items.

2.3.3 Alcohol Use. Drinking was assessed using a one-week drink diary administered at O-Week, 3 months and 6 months into the academic year. A composite score of drinking quantity was derived by adding the total number of drinks consumed each day over the week. To assess drinking behavior before college entry, participants were asked to estimate the frequency of drinking in the week before college entry and the frequency of having five or more standard drinks on those occasions. The use of a daily diary administered within a week of the drinking occasions has been found to give the best estimate of actual alcohol consumption in university students (Utpala-Kumar & Deane, 2010).

2.4 Data analysis

To simultaneously test drinking expectancies as mediators of personality and drinking motives and potential gender effects, moderated multiple mediation models were conducted. In accordance with the most recent recommendations on tests of mediation (aka indirect effects, Hayes & Scharkow, 2013) percentile bootstrap confidence intervals ($n = 5000$, confidence intervals set at 95%) were used to assess the significance of the indirect effects. The SPSS "PROCESS" macro, model 58 (Hayes, 2013) was used to test the significance of the overall total indirect effect and the specific individual indirect pathways as well as any indirect effects moderated by gender. The absence of zero within the confidence intervals suggests a significant indirect effect.

Multilevel linear mixed (MLM) modeling was used to assess predictors of the trajectory of drinking quantity during the first six months of university (centered at O-Week and controlling for pre-university drinking). The advantages of using this approach is that MLM corrects for unique issues of missing data in longitudinal studies that occur when participant data are missing from later time points (i.e., at 3 and 6 months). This approach

also allows testing of differences between participants' drinking during O-Week (intercept) as well as predictors of change in participants' drinking during the first six months (slope). Predictor variables may be categorical (e.g., gender) and/or continuous (e.g., personality trait, pre-university drinking) in a similar fashion to multiple regression analyses. Significant associations ($p < .05$) are indicated by Z values > 1.96 .

3. Results

3.1 Descriptives

In the current sample 5.9% of students reported that they were a "non-drinker" before moving to college, 55.7% reported being an "occasional drinker" and the remaining 38.4% as regular drinkers. Participants reported drinking an average of 9.15 standard drinks the week before moving to the college (range 0-41), 25.41 drinks during O-Week (range = 0-84), 11.86 at 3 months (range 0-52) and 10.81 at 6 months (range = 0-45). There was a high correlation between frequency of binge-drinking (more than 4 drinks) and overall consumption during O-Week ($r = .86, p < .001$).

Descriptive statistics and correlations between drinking during O-Week (total drinks), SURPS and DMQ are shown in Table 1. Mean scores on the SURPS were similar to MacKinnon et al (in press) American University sample. Due to the relatively large number of correlations performed an adjusted $p < .01$ was used. Impulsivity and sensation seeking and were significantly associated with drinking during O-Week, whereas anxiety sensitivity and hopelessness were not. Impulsivity was associated with all four drinking motives, while sensation seeking was associated with only enhancement motives. Neither trait anxiety sensitivity nor hopelessness was associated with any motives. Enhancement, social, and coping motives, but not conformity motives, were associated with drinking during O-Week.

Men were significantly more sensation-seeking ($M_{\text{men}} = 16.69, SD_{\text{men}} = 2.88; M_{\text{women}} = 15.48, SD_{\text{women}} = 3.31, t(256) = 3.01, p = .003$) and drank more during O-Week than

women ($M_{\text{men}} = 27.48$, $SD_{\text{men}} = 19.82$; $M_{\text{women}} = 21.07$, $SD_{\text{women}} = 18.73$, $t(211) = 2.25$, $p = .026$). Women drank more for enhancement reasons more than men ($M_{\text{men}} = 1.92$, $SD_{\text{men}} = .51$; $M_{\text{women}} = 2.08$, $SD_{\text{women}} = .58$, $t(253) = 2.26$, $p = .025$). There were no other significant gender differences.

3.2 Motives as mediators of personality and drinking during O-Week

To reduce the number of analyses, only SURPS traits with a significant association with drinking motives were tested in the multiple mediation analyses. As such, only impulsivity and sensation seeking were tested. Drinking the week prior to university entry was entered as a covariate. The overall mediation model was significant for impulsivity (unstandardized total indirect effect = .78, Bootstrapped $SE = .27$, 95% CI = .26; 1.35) but not sensation seeking (unstandardized total indirect effect = .28, Bootstrapped $SE = .05$, 95% CI = -.01; .61). Of the drinking motives only enhancement motives produced a significant specific indirect effect from impulsivity to drinking during O-Week (unstandardized specific indirect effect = .55, Bootstrapped $SE = .23$, 95% CI = .16; 1.06). None of the other three motives were found to be significant mediators. Given the gender differences previously found, we assessed whether gender moderated the indirect effects of motives on drinking from impulsivity.

3.3 Moderation by Gender

As shown in Figure 1, gender was found to moderate the indirect effects from impulsivity to drinking in O-Week via enhancement motives. Follow-up conditional indirect effects (i.e., the indirect effects tested separately for men and women) found the indirect effect of enhancement motives was specific to women (unstandardized indirect effect = 1.25, Bootstrapped $SE = .59$, 95% CI = .21; 2.51) but not for men (unstandardized indirect effect = .26, Bootstrapped $SE = .21$, 95% CI = -.04; .76). There were no other moderated indirect effects. Gender was found to moderate the association between impulsivity and enhancement

motives (path a, interaction coefficient = .07 $SE = .03$, $p = .04$), but not the association between enhancement motives and drinking (path b; interaction coefficient = 3.79, $SE = 5.54$, $p = .495$). A follow-up test of the simple slopes was performed on the association between impulsivity and enhancement motives for men and women. There was a significant association between impulsivity and enhancement motives for women ($B = .09$, $SE = .03$, $p < .001$) but not men ($B = .03$, $SE = .02$, $p = .15$). Women with higher impulsivity were higher in enhancement motives, which in turn, was associated with greater alcohol consumption during the week. The effect of enhancement motives on drinking was equivalent for men and women.

3.4 Personality as a predictor of drinking during the first six months of residential living.

Finally, to examine whether individual differences were predictive of drinking over the first six months of university, multilevel modeling was used. Models were tested using MLwiN ver 2.24. As drinking during O-Week was the key outcome in the current study the model was set up with drinking centered at O-Week. Pre-university drinking was entered as a covariate as per the previous analyses. All continuous predictors were centered (grand mean). Table 2 shows the models tested (Z values > 1.96 are significant at $p < .05$ and bolded).

First, the latent growth model was tested (Model 0). This model shows that the (predicted) mean level of drinking during O-Week was 23.74 standard drinks and that consumption significantly reduced on average by .54 drinks each week over the following six months. Model 1 showed that pre-university drinking was significantly associated with drinking in university as would be expected and retained in subsequent models as a covariate. In Model 2, gender was found to be a significant predictor of university drinking with men drinking more than women. However, gender was not associated with rate of drinking over time and was therefore omitted from subsequent models. The final two models tested

personality traits (Model 3) and motives (Model 4) as predictors of drinking over the six months. Main effects show the associations between the predictors and drinking at baseline (i.e., during O-Week) while the interaction terms show the associations between the predictors and rate of change in drinking over time. These interactions are the focus in these analyses. As shown in Model 3, reflecting the earlier analyses, only impulsivity was associated with drinking during O-Week (controlling for pre-university drinking and gender). Impulsivity was also predictive of drinking over the six months with highly impulsive students maintaining a higher level of drinking than less impulsive students. In Model 4 with motives entered as predictors, enhancement once again was a significant predictor of drinking during O-Week. Enhancement motives also predicted rate of change in drinking over time. Those students high in enhancement motives showed sustained high level of drinking compared with those low in enhancement motives. Although not a definitive test of mediation, it should be noted that the effect of impulsivity and drinking over time was reduced to non-significance. These suggest potential mediation. However, as motives were only assessed at the beginning of the study it is not possible to determine whether motives were modified over time. No other motives were predictive of change in drinking over time.

4. Discussion

The aim of this prospective study was to test personality traits as predictors of alcohol consumption during O-Week and across the first six months of university in college residents. Our hypotheses regarding impulsivity-related traits were largely supported. Both impulsivity and sensation seeking were associated with greater alcohol consumption during O-Week. Drinking for enhancement motives mediated the association between impulsivity (but not sensation seeking) and alcohol consumption during O-Week. However, this indirect effect unexpectedly occurred only for women. Impulsivity and enhancement motives were also predictive of continued high alcohol consumption over the first semester of university

for both men and women. Contrary to our hypotheses, anxiety/hopelessness traits were not associated with drinking nor drinking motives.

Similar to Magid et al. (2007), both impulsivity and sensation-seeking were associated with alcohol consumption. However, contrary to Chandley, et al. (2014) we did not find an association between anxiety sensitivity and alcohol use. Only impulsivity was predictive of change in drinking over the first six months, with high impulsive residents maintaining a higher level of drinking during the academic year. That impulsivity was uniquely associated with level of drinking during O-Week and over the first semester in students living in residences with strong drinking cultures further supports the inclusion of impulsivity-related personality traits in the alcohol risk profile.

Impulsivity was associated with all four drinking motives, although tests of mediation found only the enhancement motive to mediate the association between impulsivity and alcohol consumption. However, this indirect effect was specific to women. On closer inspection our moderated effect was due to an interaction between gender and impulsivity on enhancement motives rather than an interaction between gender and enhancement motives on drinking. Lammers et al. (2013) found the opposite pattern with an interaction between enhancement and drinking frequency, but not between impulsivity and enhancement motives. Magid et al. (2007) also found the association between enhancement motives and alcohol use to be stronger in male college students than female college students. Thus, it appears in this sample, for women having an impulsive personality increases their likelihood of forming motives regarding the enhancing effects of drinking, which in turn was associated with heavier drinking. Enhancement motives, however, was associated with heavier drinking for both genders.

Looking at the change in drinking from O-Week through the following six months, we again found impulsivity to be associated with elevated levels of consumption. These were

independent of gender, with both men and women showing equivalent slopes. Enhancement motives were also associated with the maintenance of heavy drinking over the longer term. Also, like in the cross-sectional tests of mediation, the association between impulsivity and drinking slopes was reduced to non-significance indicating potential mediation of impulsivity and drinking via enhancement motives.

There were a number of limitations in the current study. Both residential colleges were located on the campus of a single metropolitan university so the findings need replication in other locations. Due to logistical constraints we could not measure drinking motives across the year to assess mediation over time. It may be that social and enhancement motives are most salient as students enter university, with coping with negative mood more important later in semester during assessment periods. We also note the use of very brief measures and the low alpha for some of these measures. However, whilst the low internal reliability may have impacted on the failure to find associations between coping motives and alcohol use, we note that this scale had an acceptable alpha value and is unlikely to explain the results.

We also note the similarity between the traits assessed in the current study and other personality theories that have been used in the study of alcohol use such as Reinforcement Sensitivity Theory (RST, Gray & McNaughton, 2000). RST incorporates biologically-based traits similar to impulsivity/sensation seeking measured in the current study as well as anxiety/fear-related traits. The impulsivity/sensation-seeking trait has similarly been proposed to be associated with early alcohol experimentation and drinking for enhancement reasons (e.g., Dawe & Loxton, 2004) while the tendency to experience anxiety/fear is linked to drinking in order to cope with distress (Ivory & Kambouropoulos, 2012). Future studies using the more theoretically-driven RST traits may provide greater understanding of underlying drivers of drinking motives and consumption over time. Together, the mirrored

findings of the relationships between impulsivity, enhancement motives and drinking during O-Week and change in drinking, suggest that residential college students who are impulsive may benefit from interventions that target enhancement motives (e.g., Conrod et al., 2010).

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Table 1

Descriptive statistics and correlations among the variables

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. Age	18.09	1.21	-								
2. IMP	9.76	2.3	-.01	<i>.66</i>							
3. SS	16.28	3.09	.09	<i>.36**</i>	<i>.64</i>						
4. AS	11.32	2.53	-.04	.13	-.05	<i>.64</i>					
5. H	10.1	2.92	-.09	<i>.29***</i>	.04	.18	<i>.78</i>				
6. Enhancement	1.97	0.54	0.09	<i>.32**</i>	<i>.19**</i>	-.10	-.02	<i>.69</i>			
7. Social	2.23	0.61	-0.03	<i>.25**</i>	.14	-.04	.07	<i>.58***</i>	<i>.88</i>		
8. Conformity	1.18	0.31	0.03	<i>.21**</i>	.05	.14	.04	<i>.17**</i>	<i>.24**</i>	<i>.58</i>	
9. Coping	1.21	0.4	-0.6	<i>.21**</i>	.06	.05	.10	<i>.18**</i>	.15	.08	<i>.77</i>
10. O-Week drinks	25.41	19.67	0.11	<i>.23**</i>	<i>.29***</i>	-.13	-.09	<i>.48**</i>	<i>.33**</i>	.02	<i>.20**</i>

Note. IMP = Impulsivity, SS = Sensation Seeking, AS = Anxiety Sensitivity, H = Hopelessness, Enhancement = enhancement motive, Social = social motive, Conformity = conformity motive, Coping = Coping motive, O-Week drinks = total drinks consumed during O-Week. Cronbach's alphas are in italics on the diagonal.

Table 2

Multilevel models of personality and motives predicting alcohol consumption during O-Week and over the first 6 months of university

	Model 0 Latent Growth Model			Model 1 Pre-Uni drinking			Model 2 Gender			Model 3 Personality			Model 4 Motives		
Fixed effects	<i>B</i>	S.E.	<i>z.</i>	<i>B</i>	S.E.	<i>z.</i>	<i>B</i>	S.E.	<i>z.</i>	<i>B</i>	S.E.	<i>z.</i>	<i>B</i>	S.E.	<i>z.</i>
Intercept	23.74	1.28	18.49	23.88	1.09	21.89	21.10	1.63	12.94	21.80	1.67	13.02	20.99	1.56	13.45
Time (week)	-0.54	0.06	-8.62	-0.58	0.07	-8.73	-0.59	0.07	-8.92	-0.60	0.07	-9.25	-0.62	0.07	-8.69
Pre-University drinking				0.78	0.08	9.27	0.74	0.08	8.96	0.70	0.09	8.13	0.60	0.09	6.72
Gender							4.07	1.77	2.30	3.33	1.89	1.76	4.64	1.86	2.49
Impulsivity										1.37	0.57	2.38	0.52	0.50	1.03
Sensation Seeking										0.49	0.38	1.28	0.24	0.33	0.73
Anxiety Sensitivity										-0.76	0.44	-1.73	-0.48	0.38	-1.27
Hopelessness										-0.78	0.42	-1.88	-0.67	0.36	-1.87
Impulsivity*Weeks										-0.07	0.04	-2.06	-0.04	0.04	-1.03
Sensation Seeking*Weeks										-0.01	0.02	-0.52	-0.01	0.02	-0.32
Anx Sensitivity*Weeks										0.04	0.03	1.69	0.04	0.03	1.36
Hopelessness*Weeks										0.02	0.03	0.60	0.00	0.03	0.07
Enhancement													10.73	2.30	4.67
Social													2.80	1.87	1.49
Conformity													-2.83	3.42	-0.83
Coping													4.01	2.34	1.71
Enhancement*Weeks													-0.49	0.18	-2.78
Social*Weeks													0.00	0.14	0.03
Conformity*Weeks													0.06	0.24	0.26
Coping*Weeks													-0.15	0.15	-0.99

Note. Significant coefficients ($p < .05$) are in bold

Figure(s)

Total Standardized Indirect effect (Percentile 95% CI: .04 – .18)

Figure 1. Gender as a moderator, and motives for drinking as mediators, of the association between impulsivity and alcohol consumption.

Note. All values are standardized regression coefficients. Each 'a' path is the effect of impulsivity on motives. The 'b' paths represent the associations between motives and alcohol consumption during O-Week, controlling for pre-university drinking. Gender moderated the effect of impulsivity on enhancement motives (coefficient for men is listed first, coefficient for women is listed second in parentheses). ** $p < .01$, * $p < .05$.

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