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Investment in Drinking Identity Is Associated with Alcohol Consumption and Risk of Alcohol Use Disorder

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Abstract

Problematic alcohol consumption is elevated among those who identify (i.e., associate themselves) with drinking. We extend prior research on drinking identity by considering two dimensions of *investment* in identity – i.e., mental resources allocated to that identity that may motivate the pursuit of identity-related goals. We consider drinking identity importance (i.e., how important one considers it to be) and drinking identity thought frequency (i.e., how frequently one thinks about it). We investigated these dimensions from two perspectives: an absolute perspective (i.e., investment in drinking identity irrespective of other identities) and a relative perspective (i.e., investment in drinking identity compared to identities associated with other life domains [education, well-being, and personal relationships]). We aimed to evaluate whether these investment dimensions were positively associated with alcohol consumption and risk of alcohol use disorder either in interaction with or in addition to endorsement of drinking identity. College students ($N = 521$) who were screened for exhibiting hazardous drinking completed self-report measures of alcohol consumption, risk of alcohol use disorder, and drinking identity endorsement and investment. Controlling for gender and drinking identity endorsement, absolute and relative drinking identity thought frequency were uniquely and positively associated with alcohol consumption and risk of alcohol use disorder. Neither absolute nor relative importance of identification with drinking uniquely predicted outcomes. Drinking identity investment, as signaled by absolute and relative frequency of thought related to identification with drinking, may be an additional risk factor and/or clinical target for alcohol consumption and risk of alcohol use disorder.

Keywords

drinking identity; alcohol consumption; hazardous drinking; self-concept strength; alcohol use disorder; self-concept investment

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1. Introduction

Identification with drinking (associating oneself with alcohol, drinking alcohol, or drinkers) predicts problematic alcohol outcomes (see Lindgren, Neighbors, Gasser, Ramirez, & Cvencek, 2017). Social cognitive factors related to drinking identity may also contribute to problematic drinking but have been largely unexplored. One such factor is *investment* in one's drinking identity, or the mental resources allocated to the identity that can motivate pursuit of identity-related goals, such as consuming alcohol (Leach et al., 2008; Pelham, 1991). Self-concept theory, addressed at the individual (DeMarree, Petty, & Brinol, 2007a, 2007b; Pelham, 1991) and social group (Leach et al., 2008) levels, suggests that investment in drinking identity may be related to problematic drinking in addition to endorsement of drinking identity. Therefore, we investigated whether two different dimensions of drinking identity investment – drinking identity importance (how important one considers one's drinking identity) and drinking identity thought frequency (how frequently one thinks about it) – are uniquely associated with problematic drinking.

Given the robust findings that drinking identity predicts problematic drinking, it is important and timely to evaluate drinking identity more comprehensively (Lindgren et al., 2017). Self-concept theory suggests multiple facets of drinking identity (see Figure 1) that could be associated with problematic drinking. What has been referred to in the literature (including by ourselves) as *drinking identity* reflects the *drinking identity endorsement* facet. This facet reflects whether one associates oneself with alcohol, drinking alcohol, or drinkers. *Drinking identity investment* is another facet. This facet reflects the amount of mental resources allocated to the drinking identity.¹ Consider that two people may equally endorse a drinking identity, but one may be more invested in that identity than the other. This difference could have an impact on drinking, such that greater (vs. lesser) investment results in a stronger, longer relationship with problematic drinking (DeMarree et al., 2007a, 2007b; Leach et al., 2008).

There are several dimensions of drinking identity investment, and each could have unique effects on problematic drinking (DeMarree et al., 2007a, 2007b; Leach et al., 2008). We focus on two dimensions: drinking identity *importance* and *frequency of thought*. Importance refers to how important drinking identity is to one's identity. Frequency of thought refers to how frequently one thinks about one's drinking identity. One can consider these dimensions from two perspectives (see Pelham & Swann, 1989, 1994; Stets & Burke, 2000): (1) an *absolute perspective* or irrespective of other identities (e.g., how much importance, regardless of any other identities, one attaches to drinking identity) and (2) a *relative perspective* or compared to other identities (e.g., how much importance one attaches to drinking identity compared to identities associated with other life domains [education, well-being, personal relationships]). These perspectives are conceptualized as distinct from one another. For instance, one person may have less absolute, but more relative, investment in a drinking identity than another person. Studies suggest that each investment perspective can uniquely contribute to outcomes (Pelham & Swann, 1989; 1994; Swann & Pelham,

¹What we refer to as investment has elsewhere been referred to as investment (Pelham, 1991), strength (DeMarree et al., 2007a, 2007b), and centrality (Leach et al., 2008).

2002). Relative investment may also have particular clinical relevance: it may indicate prioritizing alcohol over role obligations or social, occupational, or recreational activities.

Self-concept theories suggest two ways that drinking identity investment might relate to problematic drinking. Investment may relate to problematic drinking in addition to identity endorsement (Leach et al., 2008), or in interaction with identity endorsement, where drinking identity endorsement is more strongly related to problematic drinking at higher levels of drinking identity investment (DeMarree et al., 2007a, 2007b; Swann & Pelham, 2002). Thus, we investigated whether (a) these drinking identity investment dimensions related to problematic drinking in addition to drinking identity endorsement and (b) these investment dimensions moderated the relation between drinking identity endorsement and problematic drinking. We are aware of only one published study on drinking identity investment. Lindgren, Ramirez, Namaky, Olin, and Teachman (2016) investigated both absolute and relative drinking identity importance (which they referred to as drinking identity centrality) in two U.S. college student samples. Both were positively associated with risk of alcohol use disorder and alcohol consumption independently of drinking identity endorsement. Whether additional drinking identity investment dimensions, including frequency of thought, interact with endorsement is an open question.

Thus, we investigated two dimensions of drinking identity investment (importance and frequency of thought) assessed from two perspectives (absolute and relative) in relation to self-reported alcohol consumption and risk of alcohol use disorder. We did so with a large sample of U.S. college students, one of the groups for which it is established that drinking identity endorsement is a robust correlate of problematic drinking (Lindgren et al., 2017). The students were in their last year of university and had scores ≥ 8 on the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001), an indicator of problematic drinking. Two hypotheses were tested. First, we predicted that the four drinking identity investment variables would be positively associated with alcohol consumption and risk of alcohol use disorder above and beyond drinking identity endorsement (per Leach et al., 2008). Second, we predicted that the four drinking identity investment variables would interact with drinking identity endorsement such that drinking identity endorsement's positive association with alcohol consumption and risk of alcohol use disorder would be stronger at higher levels of investment (per DeMarree et al., 2007a, 2007b; Swann & Pelham, 2002).

2. Method

2.1 Participants

Participants were 521 full-time undergraduate seniors at a large public university in the Pacific Northwest. The sample was 57.4% women; M age = 21.46 years (range: 19–25, SD = 0.92); 58.2% White/Caucasian, 23.2% Asian, 14.0% multiracial, 1.3% Black/African American, 1.2% American Indian/Alaska Native, and 0.8% Native Hawaiian or other Pacific Islander, and 1.3% unknown/declined to answer.

2.2 Measures

The AUDIT (Babor et al., 2001) is a 10-item measure assessing the past year's alcohol use, dependence, and alcohol-related problems. Responses are scored 0–4 and summed to create a total AUDIT score, with higher scores indicating greater likelihood of hazardous and harmful drinking.

The Daily Drinking Questionnaire (DDQ; Collins, Park, & Marlatt, 1985) assessed quantity and frequency of alcohol consumption during the past 3 months. Participants were provided with definitions of a U.S. standard drink and asked how many drinks they typically consume each day of the week. Daily counts were summed to create a total number of drinks consumed in a typical week.

The Alcohol Self-Concept Scale (ASCS; Lindgren et al., 2013; adapted from Shadel & Mermelstein, 1996) assessed drinking identity endorsement. Respondents indicated the extent to which they agreed with five statements describing drinking as part of their self-concept (e.g., “Drinking is part of my personality”) on a 7-point Likert scale ranging from –3 (*Strongly Disagree*) to +3 (*Strongly Agree*). Ratings were averaged across the five items, with higher scores indicating stronger endorsement of a drinking identity (Cronbach's $\alpha = .92$).

The importance of drinking identity relative to other identity domains (education, personal relationships, and well-being) was assessed using the Explicit Identity Centrality Measure (Lindgren, Ramirez, Namaky, et al., 2016). Participants were asked to, “Please take a moment to consider how you see yourself and what parts of your identity are most important to who you are. Then, please answer the following questions with the scale provided.” Then, they evaluated the relative importance of two identity domains at a time (e.g., “When you consider *drinking* versus *education*, which do you consider to be a relatively more important part of your identity?”), for a total of 6 items/comparisons (drinking vs. education, drinking vs. personal relationships, drinking vs. well-being, education vs. personal relationships, and personal relationships vs. well-being). Evaluations were made using a 7-point Likert scale (e.g., –3 *Education is much more important* to +3 *Drinking is much more important*). Relative drinking identity importance was determined by averaging scores (after reverse-coding select items such that positive scores indicated drinking as more important than the other domain) from the three items that included drinking (Cronbach's $\alpha = .71$). Higher scores indicated greater importance of drinking relative to the other identity domains.

For absolute drinking identity importance, participants indicated the extent to which they agreed with the following statements (adapted from Leach et al., 2008) on a 7-point Likert scale ranging from –3 (*Strongly Disagree*) to +3 (*Strongly Agree*): “The fact that I am a drinker is an important part of my identity,” and “Being a drinker is an important part of how I see myself.” Responses were averaged ($r = .84$), with higher scores indicating greater absolute importance of drinking as part of one's identity.

The Explicit Identity Centrality Measure (Lindgren, Ramirez, Namaky, et al., 2016) was adapted to assess frequency of thinking about drinking relative to other identity domains (education, personal relationships, and well-being). It immediately followed the relative

drinking identity importance assessment, and participants were asked to compare their frequency of thought about two identity domains (e.g., “When you consider *drinking* versus *education*, which do you think about more often?”). Ratings were made on a 7-point Likert scale (e.g., -3 *I think about education much more often* to $+3$ *I think about drinking much more often*). Scores from the 3 items involving drinking as a domain were averaged (after reverse-coding select items such that positive scores indicated drinking as thought of more often than the other domain; Cronbach’s $\alpha = .63$). Higher scores indicated relatively more thought related to drinking than other domains.

For absolute frequency of thought related to drinking identity, participants indicated their agreement with the following statement (adapted from Leach et al., 2008) on a 7-point Likert scale ranging from -3 (*Strongly Disagree*) to $+3$ (*Strongly Agree*): “I often think about the fact that I am a drinker.” Higher scores indicated more thought related to drinking in an absolute sense.

2.3 Procedure

Study data came from the baseline assessment of a larger, ongoing 2.5 year-long study evaluating drinking identity as predictor of the transition out of collegiate hazardous drinking that many make naturally (vs. by seeking treatment). Procedures were approved by the university’s internal review board. The university’s registrar’s office provided researchers with a randomly sampled list of full-time undergraduate seniors, between the ages of 18 and 25, who (based on number of credits) were likely to graduate within the next five months. Students were invited to participate in the study via email. The email included a link to the study website and a unique PIN. After completing informed consent, the eligibility screening portion was administered. Eligibility criteria included fluency in English, planning to graduate at the end of the spring academic term, and AUDIT scores ≥ 8 . Ineligible individuals were routed out of the assessment. Eligible individuals continued with the assessment. The first 500 (approximately) individuals who were eligible and completed the baseline assessment were enrolled in the study. Measures were presented in a randomized order. Validity check questions (e.g., “To answer this question correctly, you must answer ‘Strongly disagree.’”) were interspersed throughout the assessment to verify participants were attentive and responding accurately. Participants were compensated \$25 and entered into a drawing for one of four \$25 Amazon electronic gift cards.

2.4 Analysis plan and preliminary analyses

The analysis plan was pre-registered at the Open Science Framework (doi 10.17605/OSF.IO/X3VPH). Because the alcohol variables were counts and their distributions were positively skewed, an extension of ordinary linear regression – the negative binomial regression model – was used (see Atkins, Baldwin, Zheng, Gallop, & Neighbors, 2013). Because there were no AUDIT scores less than 8 (due to study eligibility criteria), AUDIT scores were best approximated by a truncated (at 8) negative binomial distribution (Cameron & Trivedi, 2013). A single model was tested for each outcome. Predictors included drinking identity endorsement, the four drinking identity investment variables, and the four two-way interactions between drinking identity endorsement and the four investment variables. Gender (coded 0 = men, 1 = women) was also included as a predictor to control for known

gender differences in alcohol consumption and AUDIT scores. One participant who identified as transgender was excluded from analyses involving gender since the number of transgender individuals was too small for subgroup analyses.

Prior to testing hypotheses, we evaluated the distributions of the drinking identity investment variables and transformed them as appropriate. Continuous variables were mean-centered prior to the creation of interaction terms. Bivariate correlational analyses were conducted to examine any potential overlap between the predictor variables. We set an *a priori* threshold of $r = .7$, wherein correlations between predictors of .7 or above represented substantial overlap.

3. Results

3.1 Preliminary analyses

Relative drinking identity importance skew (2.84) and kurtosis (9.82) were high, and 57.5% ($n = 299$) of the participants had $M = -3$. We dichotomized the variable, consistent with approaches taken when other drinking identity variables were similarly skewed (Lindgren, Ramirez, Olin, & Neighbors, 2016). Participants' responses were coded as 0 if they had $M = -3$ and coded as 1 if they had $M > -3$. Descriptive statistics and correlations for study variables are presented in Table 1. Correlations between drinking identity variables ranged from .17 to .67, with the exception of the correlation between drinking identity endorsement and absolute drinking identity importance ($r = .75$). Because this correlation exceeded our *a priori* .70 threshold and the study's primary aims were to test whether drinking identity investment variables predicted outcomes after controlling for drinking identity endorsement, absolute drinking identity importance (vs. drinking identity endorsement) was dropped from the models.

3.2 Evaluating investment in drinking identity in prediction of drinking outcomes

Next, the regression models were conducted (see Table 2 for complete results). We begin with AUDIT scores. Gender and drinking identity endorsement were significantly associated with AUDIT scores. Women had lower AUDIT scores and endorsement was associated with higher AUDIT scores. As predicted, relative and absolute drinking identity thought frequency were positively and significantly associated with AUDIT scores. Contrary to predictions, relative importance of drinking identity was not significantly associated with AUDIT scores. Also contrary to predictions, the two-way interactions were not significant.

The overall pattern of results for alcohol consumption was nearly identical. Namely, gender and drinking identity endorsement were significantly associated with alcohol consumption, as were relative and absolute drinking identity thought frequency. Relative importance of drinking identity was not significantly associated with consumption. A significant interaction between drinking identity endorsement and relative importance of drinking identity emerged. The interaction plot (see Figure 2) revealed a relationship contrary to predictions: there was a stronger positive relationship between drinking identity endorsement and alcohol consumption for individuals reporting that drinking was lower in relative importance (technically, reporting that drinking was not at all important relative to

other domains) than for individuals reporting that drinking was higher in relative importance (technically, reporting anything other than drinking was not at all important relative to other domains). The 95% confidence intervals for plotted values for those lower and higher in relative drinking identity importance consistently overlapped.

4. Discussion

We expanded drinking identity research by refining its theoretical conceptualization and testing two theory-driven hypotheses. We sought to distinguish drinking identity endorsement from other identity facets and tested whether one facet – drinking identity investment, assessed from relative and absolute perspectives – aided in accounting for problematic drinking. Support for hypotheses was mixed. Relative and absolute drinking identity thought frequency were independently and positively associated with alcohol consumption and risk of alcohol use disorder. However, relative and absolute drinking identity importance were not independently associated with either, and evidence of the predicted two-way interactions was scant.

While cross-sectional, these findings add to evidence that drinking identity is uniquely related to problematic drinking. Previous studies demonstrate that drinking identity endorsement is distinct from other, well-validated cognitive predictors of drinking (e.g., alcohol expectancies; Lindgren, Ramirez, Olin, et al., 2016) and predicts problematic drinking prospectively (Lindgren, Neighbors, et al., 2016). The current findings suggest that frequency of thought related to drinking identity may contribute to problematic drinking. Because of the cross-sectional study design, it is also possible that the frequency of thought —problematic drinking relationship emerges because problem drinkers think about their drinking identity with relatively high frequency. Future research will need to establish the direction of effects and causality.

4.1 Implications for Theory

Drinking identity frequency of thought might lead to greater problematic drinking because identity investment is theorized to motivate pursuit of identity-related goals (Leach et al., 2008; Pelham, 1991). While speculative, it may be that frequency of thought, compared to importance, is particularly motivating. It may be that the process of frequently thinking about one's drinking identity increases and maintains cognitive activation of that identity, which, in turn, leads to biased attention towards alcohol-related cues (Brosch & van Bavel, 2012), craving (Lindgren et al., 2013), and ultimately, alcohol consumption.

Unlike Lindgren, Ramirez, Namaky, et al. (2016), we did not observe independent associations between drinking identity importance and problematic drinking. Drinking identity endorsement and absolute drinking identity importance overlapped such that the latter could not be included in analyses. Though relative drinking identity could be included in analyses, it was not significantly associated with problematic drinking. Its relationship with problematic drinking might have been overpowered by the relationship between drinking identity thought frequency and the drinking outcomes. The heavy positive skew of its distribution and the subsequent dichotomization of the variable may also have limited the ability to detect a relationship with problematic drinking. While the heavy skew may be an

accurate reflection of participants' perceptions, it could also reflect impression management (i.e., a reluctance to state drinking is important to one's identity relative other life domains) and/or poor measurement.

There was scant evidence for the predicted interactions between drinking identity endorsement and drinking identity investment. The single significant interaction between relative drinking identity importance and drinking identity endorsement could be spurious given the overlapping confidence intervals for the relationship between drinking identity endorsement and alcohol consumption at each level of relative drinking identity importance, and that 5% ($n = 15$ out of 299) of those who indicated that their drinking identity was relatively unimportant endorsed a drinking identity above the scale's midpoint. While the lack of interactions is inconsistent with some self-concept theory (DeMarree et al., 2007a) and basic social psychology findings (Swann & Ely, 1984), it is consistent with other self-concept theory (Leach et al., 2008) and drinking identity findings (Lindgren, Ramirez, Namaky, et al., 2016). It may be these identity facets are simply independent. However, the correlations between the identity variables may make it difficult to detect interactions (see Swann & Pelham, 2002), which highlights the need for improving existing measures.

Our novel drinking identity model was partially supported and advances general self-concept theory. Consistent with individual-level self-concept theory (Pelham & Swann, 1989), identity endorsement was independently associated with problematic drinking, whereas, consistent with group-level theory (Leach et al., 2008), identity investment dimensions were independently associated with problematic drinking. Furthermore, findings demonstrated that relative and absolute investment are distinct. These findings provide preliminary evidence that drinking behavior may be a function of a complex, multi-faceted, and motivated drinking identity.

4.2 Clinical implications

A key preliminary finding is that high drinking identity thought frequency may confer additional risk for problematic drinking, suggesting that drinking identity thought frequency could be an intervention target. The thought frequency construct may echo problematic cognitive processes across many mental health problems, such as rumination (depression: Nolen-Hoeksema & Morrow, 1991), worry (anxiety: Borkovec, 1994), and desire thinking (problematic drinking: Caselli & Spada, 2010). Each process has a distinct focus (whether on the past [rumination], future [worry], or a desired target [e.g., a drink, desire thinking]), and has been targeted clinically. Drinking identity thought frequency could be a distinct cognitive process or be related to rumination, worry, and desire thinking. Resolving causality and distinctiveness are important next steps. Existing interventions that target these cognitive processes in other disorders (e.g., postponement of worry, Borkovec, 1994; modifying metacognitive beliefs, Spada, Proctor, Caselli, & Strod, 2013) could potentially be adapted to target drinking identity thought frequency and reduce problematic drinking.

4.3 Strengths, limitations, and future directions

Study strengths include a large sample that exhibited hazardous drinking, previously used and validated measures, and a pre-registered analysis plan. The study's eligibility criteria

also leave open the question of whether the same relationships would be observed with lower risk and younger students. The use of self-report measures, the lower internal reliability of the relative drinking identity investment variables, and the single item assessment of absolute drinking identity thought frequency are limitations. Important future research directions include evaluating and improving measurement of the identity constructs. For example, it is crucial to address potential impression management concerns with respect to assessing drinking identity importance and to increase the distinctiveness of measures of absolute importance of drinking identity from measures of drinking identity endorsement. It is important to evaluate whether the comparison identity domains (e.g., education, well-being) for the relative investment measures are equivalent to the drinking domain. Finally, future studies should evaluate drinking identity investment constructs in problem drinkers prospectively, including their impact on the initiation and escalation of drinking in younger populations.

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Highlights

- Higher drinking identity thought frequency predicted problematic drinking
- Relationships were independent of drinking identity endorsement
- Importance of drinking identity did not uniquely predict outcomes

Figure 1.

Schematic representing our conceptualization of drinking identity, drinking identity endorsement, and drinking identity investment. Squares represent constructs evaluated in the current study. Self-concept theories suggest drinking investment may predict problematic drinking independently of drinking identity endorsement (Leach et al., 2008) or in interaction with drinking identity endorsement (DeMarree et al., 2007a, 2007b; Swann & Pelham, 2002).

Figure 2.

Typical drinks per week as a function of drinking identity endorsement and relative drinking identity importance. Drinking identity endorsement = scores on the Alcohol Self-Concept Scale; higher scores = stronger endorsement of drinking identity. Relative drinking identity importance = importance of drinking relative to other identity domains (education, wellbeing, relationships). Scores were coded 0 (drinking not at all important relative to any other domain) or 1 (anything other than drinking not at all important relative to any other domain).

Table 1

Descriptive statistics and bivariate correlations for all study variables

	1	2	3	4	5	6	7	8
1. Drinks per week	--	--	--	--	--	--	--	7
2. AUDIT Scores	.56**	--	--	--	--	--	--	--
3. Drinking identity endorsement (DI)	.40**	.43**	--	--	--	--	--	--
4. Relative DI importance	.21**	.24**	.34**	--	--	--	--	--
5. Absolute DI importance	.28**	.32**	.75**	.33**	--	--	--	--
6. Relative DI thought frequency	.33**	.37**	.45**	.43**	.43**	--	--	--
7. Absolute DI thought frequency	.35**	.41**	.66**	.28**	.65**	.42**	--	--
8. Gender	-.30**	-.13**	-.06	-.10*	-.08	-.01	-.01	--
<i>M</i>	14.86	12.50	-1.61	--	-2.21	-2.04	-1.64	--
<i>SD</i>	10.73	4.44	1.22	--	1.10	0.95	1.51	--
<i>Skew</i>	1.59	1.33	0.79	--	1.69	1.08	1.09	--
<i>Kurtosis</i>	3.28	1.69	-0.01	--	2.98	0.87	0.37	--
%	0.4% = 0	16.5% = 8	18.2% = 0	57.4% = 0	50.5% = 0	26.3% = 0	38.6% = 0	42.5% = 0
<i>n</i> for the specified response	(<i>n</i> = 2)	(<i>n</i> = 86)	(<i>n</i> = 95)	(<i>n</i> = 299)	(<i>n</i> = 263)	(<i>n</i> = 137)	(<i>n</i> = 201)	(<i>n</i> = 221)

Note. *N* = 521 for all analyses not involving gender, *N* = 520 for analyses involving gender.

**
 $p < .001$,

*
 $p < .05$.

Drinks per week = number of U.S. standard drinks as measured by the Daily Drinking Questionnaire (Collins et al., 1985). AUDIT = scores on the Alcohol Use Disorder Identification Test (Babor et al., 2001); minimum score for this sample = 8. Drinking identity endorsement = scores on the Alcohol Self-concept Scale (Lindgren et al., 2013); higher scores = stronger endorsement of drinking identity. Relative DI importance = scores on Explicit Identity Centrality Measure (Lindgren et al., 2016); scores were coded 0 (drinking not at all important relative to any other domain) or 1 (anything other than drinking not at all important relative to any other domain). Absolute DI importance = mean score of items assessing importance of being a drinker (adapted from Leach et al., 2008). Relative DI thought frequency = adapted from the Explicit Identity Centrality Measure (Lindgren et al., 2016) to assess frequency of thoughts about drinking relative to other domains; scores are means. Absolute DI thought frequency = score of item assessing the frequency of thoughts about being a drinker (adapted from Leach et al., 2008). Gender was coded 0 = men; 1 = women.

Table 2

Negative binomial regression models evaluating drinking identity endorsement and drinking identity investment as predictors of AUDIT scores and alcohol consumption.

	B=ln e^B	SE(B)	z	p	LL95%	UL95%	e^B
AUDIT Scores							
Constant	2.34	0.06	40.88	< .001	2.23	2.45	10.39
Gender	−0.13	0.05	−2.58	0.01	−0.22	−0.03	0.88
Drinking Identity (DI)	0.13	0.03	3.65	< .001	0.06	0.20	1.14
Relative DI Importance	0.08	0.05	1.52	0.13	−0.02	0.19	1.09
Relative DI Thought	0.07	0.03	2.29	0.02	0.01	0.13	1.08
Absolute DI Thought	0.07	0.02	3.36	0.001	0.03	0.12	1.08
Relative DI Import × DI	−0.07	0.05	−1.40	0.16	−0.16	0.03	0.94
Relative DI Thought × DI	0.03	0.02	1.30	0.19	−0.01	0.07	1.03
Absolute DI Thought × DI	−0.01	0.01	−1.00	0.32	−0.04	0.01	0.99
alpha (dispersion parameter)	0.10	0.02			0.06	0.16	
Alcohol Consumption							
Constant	2.90	0.05	55.95	< .001	2.80	3.00	18.16
Gender	−0.42	0.05	−7.89	< .001	−0.52	−0.31	0.66
Drinking Identity (DI)	0.18	0.04	4.73	< .001	0.11	0.26	1.20
Relative DI Importance	0.01	0.06	0.19	0.85	−0.10	0.13	1.01
Relative DI Thought	0.11	0.03	3.27	0.001	0.04	0.18	1.12
Absolute DI Thought	0.07	0.02	2.69	0.01	0.02	0.11	1.07
Relative DI Import × DI	−0.12	0.05	−2.20	0.03	−0.22	−0.01	0.89
Relative DI Thought × DI	0.02	0.02	0.70	0.49	−0.03	0.06	1.02
Absolute DI Thought × DI	−0.01	0.02	−0.92	0.36	−0.05	0.02	0.99
alpha (dispersion parameter)	0.27	0.02			0.23	0.32	

N = 520. *B* = unstandardized parameter estimate, log-linked for truncated negative binomial regression; *SE* = standard error of the parameter estimate; *eB* = exponentiated coefficient also known as the Incident Rate Ratio. Gender was coded 0 = men, 1 = women. DI = drinking identity endorsement. Relative DI importance was coded 0 = drinking not at all important relative to any other identity domain; 1 = anything other than drinking not at all important relative to any other domain. DI, Relative DI thought, and Absolute DI thought were mean centered prior to creation of product terms.