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Interactions between positive and negative alcohol expectancies

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INTERACTIONS BETWEEN POSITIVE AND NEGATIVE ALCOHOL EXPECTANCIES

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INTRODUCTION

- Alcohol outcome expectancies have been defined as "…internal summary-representations (memories) of alcohol effects (acquired directed or vicariously) that then enter into subsequent decision making about alcohol use" (Smith, Goldman, Greenbaum & Christiansen, 1995).
- Alcohol expectancies have been found to predict drinking onset, predict drinking prospectively in drinkers and predict posttreatment outcomes.
- Negative expectancies are independent of positive expectancies and can be better predictors of drinking behavior in some situations (Jones & McMahon, 1998).
- Grube & Agostinelli (1999) found a significant interaction between negative expectancies and expectancies of affective enhancement in predicting concurrent drinking.

PRESENT STUDY

- The present study was designed to gain a further understanding of the relations between positive and negative alcohol expectancies and drinking. Longitudinal data was used in order to model the change in expectancies and alcohol consumption over time.

METHOD

Participants

- 3,720 college students from the IMPACTS (The Intensive Multivariate Prospective Alcohol College-Transitions Study) study (Sher & Rutledge, 2007).
- Data for the present study is taken from waves 1, 3, 5 and 7, in which alcohol expectancies were measured.

Measures

- The Brief Comprehensive Effects of Alcohol (B-CEOA; Ham, Stewart, Norton & Hope, 2005) is a 15-items scale measuring positive and negative expectancies about the consequences of alcohol consumption.
- A composite score of different items measuring alcohol use (frequency of getting lightheaded or a little high on alcohol; frequency of getting drunk; and frequency of having 5 or more drinks at one setting) was used.

ANALYSIS

- Latent Growth Modeling was conducted across three stages: first, the change in drinking and expectancies was examined separately; second, the direct association between initial status and changes in expectancies and the initial status and change in drinking was determined; third, the interaction between the slopes of expectancy factors predicting change in drinking was tested.

Standardized Estimates of Means (and Unstandardized Estimates of Variances) and Correlations (and Covariances) of LGM Models for Positive and Negative Expectancies and Drinking Level.

Measure	Intercept (variance)	Slope (variance)	Correlation (covariance)
Positive expectancies	4.86 (0.27)*	-0.31 (0.04)*	-0.32 (-0.03)*
Negative expectancies	5.47 (0.23)*	-0.70 (0.01)*	-0.28 (-0.02)*
Drinking level	1.22 (1.29)*	0.24 (0.06)*	-0.31 (-0.09)*

*** = p < .05**

Figure 1. Second-stage model. Values are standardized estimates. Bolded values are significant at p < .05. Model fit: $\chi 2 = 118.9$, 41 df, p = .00, RMSEA = .02 (CI: .02-.03), CFI = 0.99.

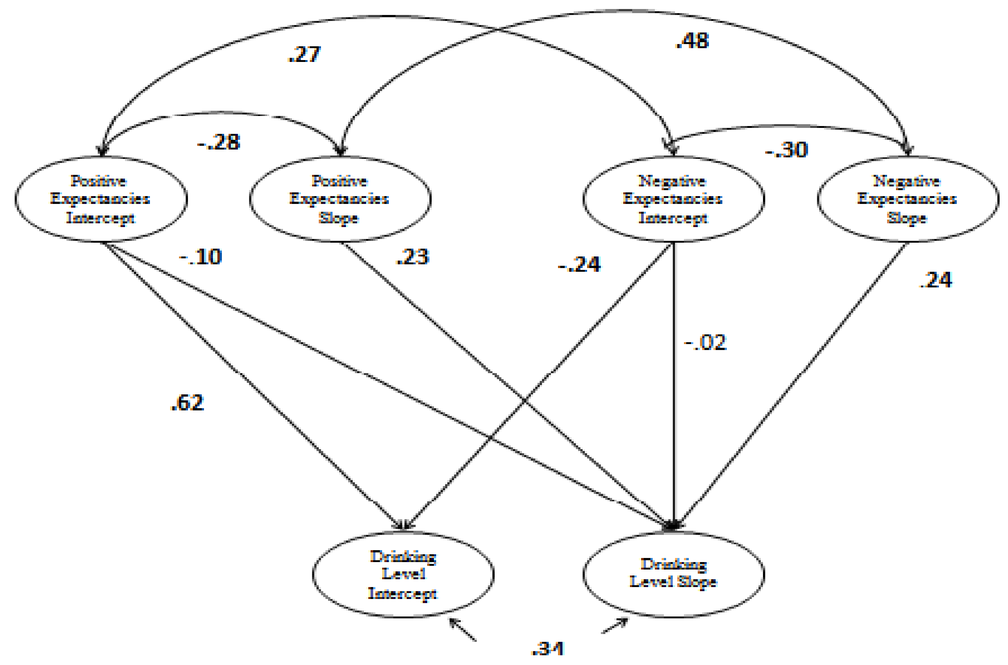
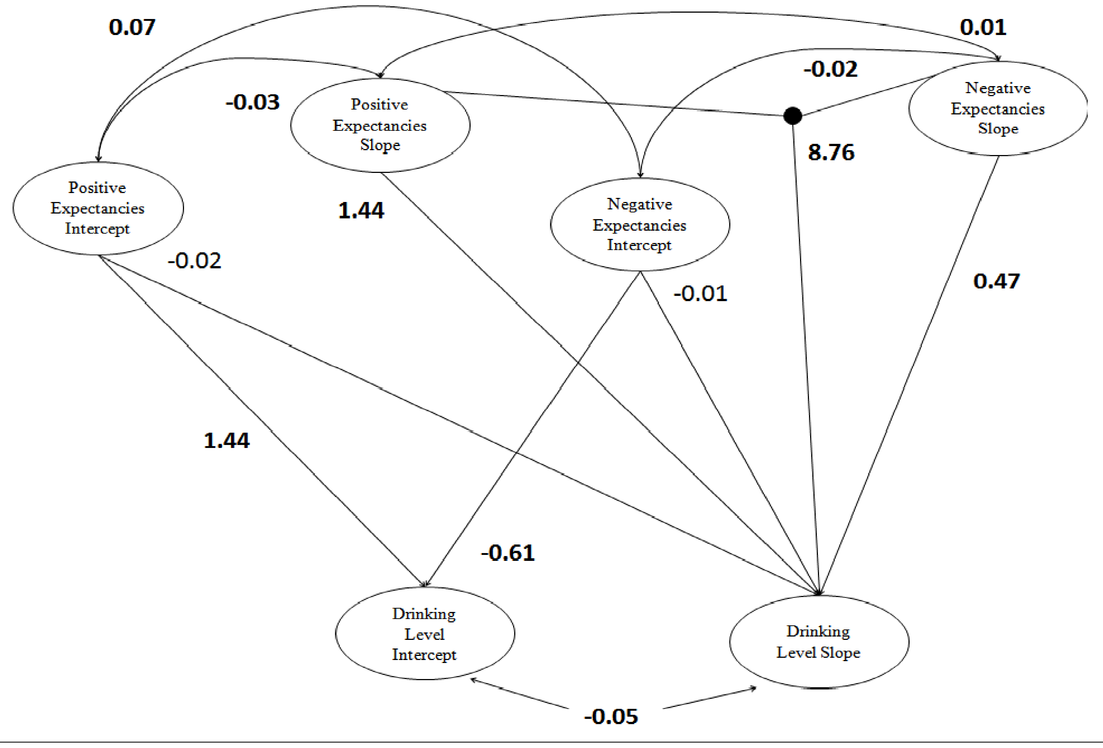


Figure 2. Third-stage model. Values are unstandardized estimates. Bolded values are significant at p < .05.



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RESULTS

- A linear and a free curve LGM were compared for the three variables. For negative expectancies and drinking level the linear model was best fitting, whereas for positive expectancies the free curve model was best fitting.
- As shown in the Table, all parameters were statistically significant (p <.05), indicating that positive and negative expectancies tended to decrease with time, whereas drinking levels tended to increase with time. However, individual differences are significant in initial status and rate of change.
- The main effects of positive and negative expectancies as predictors of drinking initial levels and change are presented in Figure 1. All paths are significant with the exception of the path between the intercept of negative expectancies and the slope of drinking levels. This implies that although both positive and negative expectancies are contemporaneously associated with initial levels of drinking, only changes in positive expectancies are prospectively associated with changes in drinking.
- The final model including the interaction between the slopes of expectancies is presented in Figure 2. The interaction effect was significant, suggesting that higher rates of change in both types of expectancies tend to increase the rate of change in drinking.

CONCLUSIONS

- This pattern of results suggest that expectancies are important markers of drinking, since changes in expectancies are associated with changes in drinking.
- Moreover, the fact that the interaction between expectancies is associated with changes in alcohol use suggest that special attention should be paid to the assessment of students who exhibit significant increases in positive and negative expectancies simultaneously.

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