OUTCOME EXPECTANCIES AND DECISION MAKING AS PREDICTORS OF DRINKING BEHAVIOR

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INTRODUCTION

Alcohol Outcome Expectancies have been found to:

- predict drinking onset (Christiansen, Smith, Roehling & Goldman, 1989).
- predict drinking prospectively in drinkers (Stacey, Newcomb & Bentler, 1991; Sher, Wood, Wood & Raskin, 1996), and
- predict posttreatment outcomes (Connors, Tarbox & Faillace, 1993).

Poor decision-making skills predispose adolescents to heavy alcohol use (Johnson, et al., 2008).

There are reasons to think that there is an interaction between alcohol expectancies and decision-making skills (e.g., Epstein, Zhou, Bang & Botvin, 2007), but there are no studies measuring positive and negative expectancies at the same time, nor measuring risky decision making through neuropsychological tests.

PRESENT STUDY

The present study was designed in order to gain a further understanding of the relations between alcohol expectancies and decision making, through the inclusion of a measure of positive and negative expectancies, as well as a neuropsychological measure of decision making.

METHOD

Participants

- 200 college students from an ongoing longitudinal study.

- Participants were selected according to the following classification of their previous pattern of drinking: low binge drinkers at all time points; moderate binge drinkers at all time points; increasing binge drinkers; and heavy binge drinkers.

Measures

- Comprehensive Effects of Alcohol (CEOA)

- Impulsive Sensation Seeking Scale, taken from the Zuckerman-Kuhlman Personality Questionnaire.

- Iowa Gambling Task (IGT). The task works proposing a gambling game, where subjects are asked to chose among four decks of cards in order to win as much money as possible. However, different decks are associated with different consequences, so that turning a card from A or B yields a constant reward of $100, but also intermittent high losses, so selection from those decks lead to an overall loss. In contrast, decks C and D yield a constant reward of $50, which is lower than the reward for A and B, but also intermittent losses, so selection of cards from those decks lead to an overall profit in the long run.

Figure 1: Three-way interaction between positive expectancies, negative expectancies and decision making, predicting composite drinking score and quantity of consumption
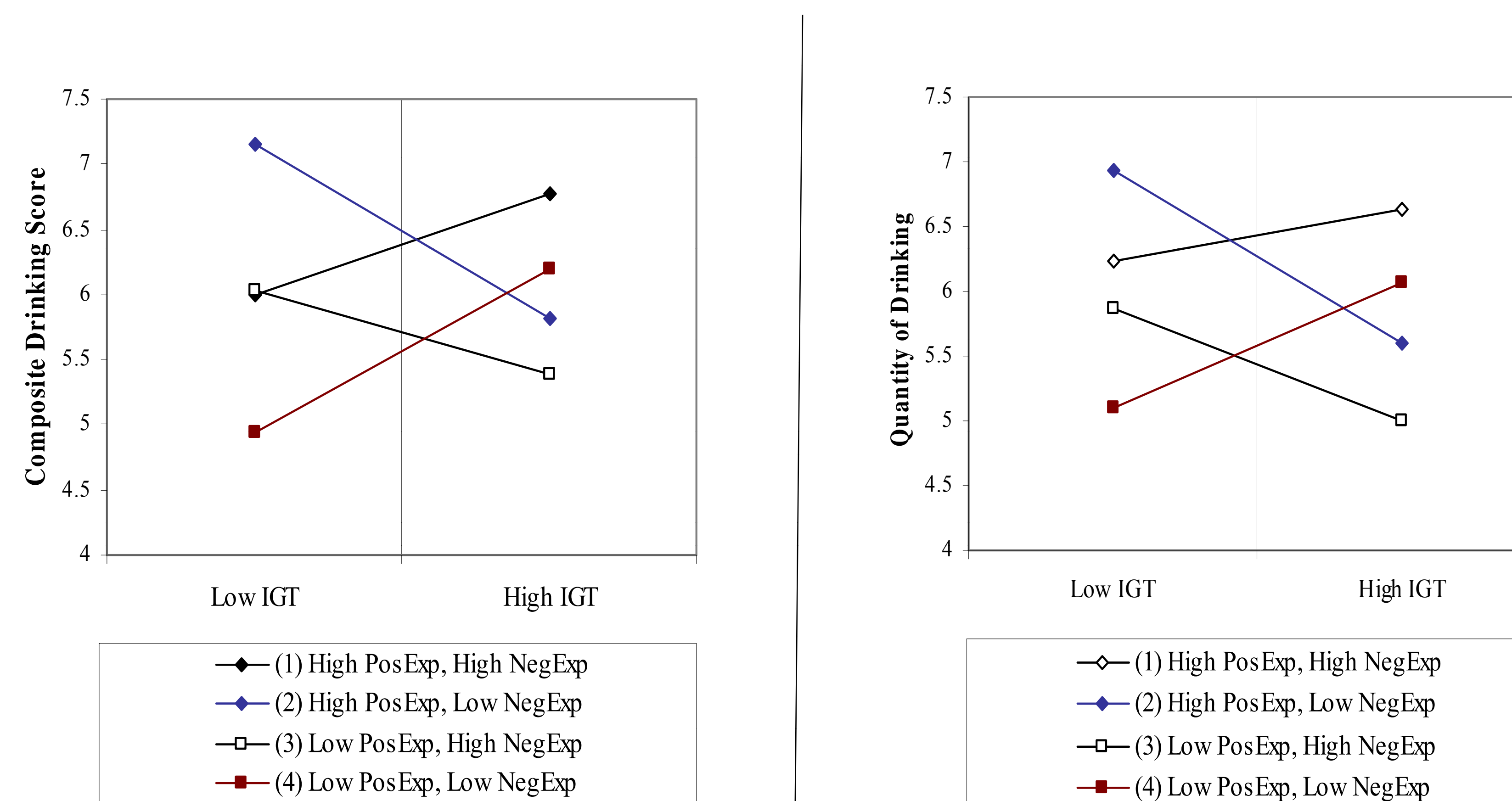

Table 1: Regression equations predicting composite drinking score and quantity of consumption

Predictor	b	SEb	β	t	p
Sex	-.09	.4	-.02	-.24	.81
ImpSS	.07	.05	.11	1.44	.15
PosExp	.66	.48	.16	1.36	.18
NegExp	.02	.4	.004	0.04	.96
IGT	.006	.14	.004	0.04	.97
PosExp X NegExp	-.2	.51	-.04	-0.40	.69
PosExp X IGT	-.15	.24	-.07	-0.65	.52
NegExp X IGT	.006	.24	.002	0.03	.98
PosExp X NegExp X IGT	.72	.29	.23	2.46	.01

Predictor	b	SEb	β	t	p
Sex	-.52	.4	-.12	-1.28	.2
ImpSS	-.002	.05	-.004	-0.05	.96
PosExp	.69	.49	.19	1.41	.16
NegExp	.007	.4	.002	0.02	.98
IGT	-.05	.14	-.04	-0.39	.69
PosExp X NegExp	.17	.51	.04	0.33	.74
PosExp X IGT	-.13	.24	-.07	-0.56	.58
NegExp X IGT	-.03	.24	-.01	-0.11	.91
PosExp X NegExp X IGT	.64	.30	.23	2.15	.03

- Alcohol use measures. A composite drinking 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. Measures of frequency and quantity of alcohol consumption were also included.

ANALYSIS

A series of hierarchical regression analyses were conducted in order to determine the relation between alcohol expectancies and IGT performance as predictors of drinking behavior.

RESULTS

Significant three-way interactions were found in the cross-sectional analysis when predicting the composite drinking score and quantity of consumption. No significant interactions were found when predicting frequency of use nor in the prospective analyses.

Figure 1 shows that higher levels of drinking are found in low decision makers who hold high positive and low negative expectancies. The same combination of expectancies is not related to high levels of drinking in high decision makers.

CONCLUSIONS

In spite of the theoretical appeal of interactions between positive and negative expectancies, there are only a few reports of interactions in the literature. The present findings suggest the possibility that the interaction between positive and negative expectancies is moderated by decision making.

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