Mood and Urgency Effects on Alcohol Expectancies

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Introduction

• Current mood facilitates the activation of mood congruent memory (Mood-congruent Memory Theory; Hufford, 2001).

• Therefore, specific mood states should influence the activation of specific expectancies in memory.

• Alcohol expectancies are anticipated outcomes from alcohol use stored in memory (Goldman et al., 2006).

• Prior studies of mood and alcohol expectancies have shown that individuals self-generate more:

- positive reinforcement alcohol expectancies after a positive mood induction
- negative reinforcement expectancies after a negative mood induction

(Birch et al., 2004; McKee, Wall, Hinson, Goldstein, & Bissonnette, 2003).

• We tested whether individual differences in the personality trait urgency affects the activation of alcohol expectancies following mood induction.

• Urgency is a sub-component of impulsivity that:

- is closely tied to mood reactivity
- has both positive and negative components
- is associated with drinking behavior (Cyders et al., 2007).

Method

Participants

• 324 participants signed up for the study; 313 (97%) completed both parts.

• Participants were 18 to 23 years old (mean age = 18.6; 62% women; 87.3% Caucasian) recruited from introductory psychology courses at the University of Missouri.

• 79.3% of our sample had at least one alcoholic drink in the past month.

Measures

• *Questionnaire measures included:*

- Demographics
- UPPS Impulsive Behavior Scale—Revised (UPPS-R; Whiteside & Lynam, 2001)
- The Positive Urgency Measure (PUM; Cyders et al., 2007)
- Alcohol Expectancies Questionnaire (AEQ; Brown, Goldman, Inn, & Anderson, 1980)
- The Drinking Styles Questionnaire (Smith, McCarthy, & Goldman, 1995)

• Visual Analogue Scales (VAS)

- Participants rate their current mood state on four positive affect (*cheerful, happy, glad,* and *pleased*) and three negative affect (*sad, depressed, and blue*) scales by drawing a vertical line through a 100mm continuum.

• Example:

How *cheerful* are you right now?

Not at all----------Very

Procedure

• Participants were randomly assigned to a mood manipulation task (positive, negative, or neutral) in which they rated IAPS slides (Greenwald, Cook, & Lang, 1989) and listened to mood-congruent music. Examples:

Positive Slide

Neutral Slide

Negative Slide

• Immediately following, participants self-generated alcohol expectancies by responding to the stem, *"Alcohol makes me…_____."*

• All questionnaire measures were completed online.

Results

Manipulation Check

• VAS scale positive and negative mood ratings were significantly different between positive, neutral, and negative mood conditions (*p's* < .05).

Main Effects

• Counts of self-generated positive reinforcement, negative reinforcement, and negative consequences alcohol expectancies were not significantly different across mood conditions.

• Main effects of positive and negative urgency on expectancy counts were non-significant as well.

Interactions

• ANOVAs revealed a significant interaction between mood condition and positive urgency on positive reinforcement alcohol expectancies, $F(2, 236) = 4.51$, $p = .012$.

• Interaction of mood condition and positive urgency on negative consequences expectancy activation was also significant, $F(2, 236) = 3.26$, $p < .05$.

• Probing these interactions revealed that positive urgency is significantly *negatively* related to activation of positive reinforcement expectancies when participants are in a negative mood ($r = -.36$; Figure 1) and significantly *positively* related to negative consequences when participants are in a negative mood ($r = .25$; Figure 2).

• Mood condition did not interact with positive urgency to influence negative reinforcement expectancy activation, showing specificity of the effect.

• Interactions between negative urgency and mood condition were non-significant for all three expectancy types.

Figure 1. Positive Reinforcement Expectancies by Positive Urgency and Mood Condition

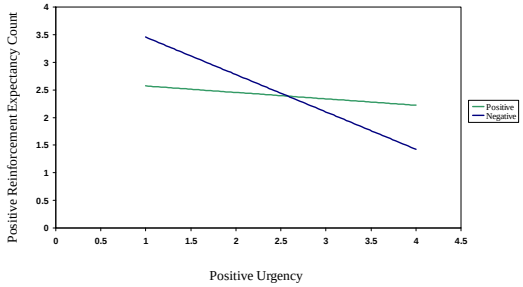
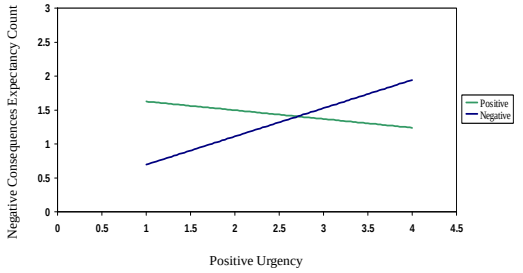


Figure 2. Negative Consequences by Positive Urgency and Mood Condition



Discussion

• As hypothesized, differences in mood affected the relationship between the personality characteristic positive urgency and activation of specific mood-related alcohol expectancies in memory.

• Unlike prior studies (Birch et al., 2004; McKee et al., 2003; Simons et al., 2005), no main effects of mood on expectancy activation were observed.

• This study is a first step toward demonstrating expectancy activation as a mechanism by which personality traits and mood influence alcohol use decisions.

• Future research is needed to test whether the differential activation of expectancies found in this study would lead to actual differences in drinking behavior.

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