Moderate Doses of Alcohol Increase Social Bonding in Groups

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A new study led by University of Pittsburgh researchers reveals that moderate amounts of alcohol—consumed in a social setting—can enhance positive emotions and social bonding and relieve negative emotions among those drinking.

While it is usually taken for granted that people drink to reduce stress and enhance positive feelings, many studies have shown that alcohol consumption has an opposite effect. In a new paper titled "Alcohol and Group Formation: A Multimodal Investigation of the Effects of Alcohol on Emotion and Social Bonding," research shows that moderate doses of alcohol have a powerful effect on both male and female social drinkers when they are in a group.

The paper will be published in Psychological Science, a journal of the Association for Psychological Science.

According to the researchers, previous alcohol studies testing the impact of alcohol on emotions involved social drinkers consuming alcohol in isolation rather than in groups.

"Those studies may have failed to create realistic conditions for studying this highly social drug," said Michael A. Sayette, lead author and professor of psychology in Pitt's Kenneth P. Dietrich School of Arts and Sciences. "We felt that many of the most significant effects of alcohol would more likely be revealed in an experiment using a social setting."

Sayette and his colleagues assembled various small groups using 720 male and female participants, a larger sample than in previous alcohol studies. Researchers assessed individual and group interactions using the Facial Action Coding System (FACS) and the Grouptalk model for speech behavior.

They concluded that alcohol stimulates social bonding, increases the amount of time people spend talking to one another, and reduces displays of negative emotions. According to Sayette, the paper introduces into the alcohol literature new measures of facial expression and speech behavior that offer a sensitive and comprehensive assessment of social bonding.

Sayette and eight colleagues took special care in the methods they employed to form the groups. Each participant was randomly assigned to a group of three unacquainted "strangers." Each group was instructed to drink an alcoholic beverage, a placebo, or a nonalcoholic control beverage. Twenty groups representing each gender composition (three males; one female and two males; two males and one female; and three females) were assigned to the three different beverage scenarios. Group members sat around a circular table and consumed three drinks over a 36-minute time span. Each session was video recorded, and the duration and sequence of the participants' facial and speech behaviors were systematically coded frame by frame.

Results showed that alcohol not only increased the frequency of “true” smiles, but also enhanced the coordination of these smiles. In other words, alcohol enhanced the likelihood of “golden moments,” with groups provided alcohol being more likely than those offered nonalcoholic beverages to have all three group members smile simultaneously. Participants in alcohol-drinking groups also likely reported greater social bonding than did the nonalcohol-drinking groups and were more likely to have all three members stay involved in the discussion.

“By demonstrating the sensitivity of our group formation paradigm for studying the rewarding effects of alcohol,” said Sayette, “we can begin to ask questions of great interest to alcohol researchers—Why does alcohol make us feel better in group settings? Is there evidence to suggest a particular participant may be vulnerable to developing a problem with alcohol?”

The new research sets the stage for evaluation of potential associations between socioemotional responses to alcohol and individual differences in personality, family history of alcoholism, and genetic vulnerability.

Additional Pitt researchers on the project were Pitt graduate students in psychology Kasey Creswell, John Dimoff, and Catharine Fairbairn and professors of psychology Jeffrey Cohn, John Levine, and Richard Moreland. Other researchers included Bryan Heckman, a graduate student in psychology at the University of South Florida, and Thomas Kirchner, a research investigator at the Schroeder Institute for Tobacco Research and Policy Studies.

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