Alcohol commits people to personally important goals even if expectations of reaching the goals are low. To illuminate this effect, we used alcohol myopia theory, stating that alcohol intoxicated people disproportionately attend to the most salient aspects of a situation and ignore peripheral aspects. When low expectations of reaching an important goal were activated students who consumed alcohol were less committed than students who consumed a placebo. We observed less commitment regardless of whether low expectations were explicitly activated in a questionnaire (Study 1) or implicitly activated through subliminal priming (Study 2). The results imply that, intoxicated people commit to goals according to what aspects of a goal are activated either explicitly or implicitly.

**Keywords:** alcohol myopia, goal commitment, expectations, subliminal priming

Alcohol intake causes people to become short-sighted. Intoxicated people, for instance, may fail to anticipate negative consequences of their actions and may express a greater willingness to engage in risky behaviors (e.g., drunk driving). As a mechanism for this short-sightedness alcohol-myopia theory (Steele & Josephs, 1990) proposes that intoxicated people no longer have the processing skills to attend to all the cues available in a situation. Instead they disproportionally focus on the cues that are salient (e.g., being home quickly) and ignore cues that are more remote (e.g., having an accident).

Of importance, according to alcohol-myopia theory, alcohol does not generally lead to a greater willingness to engage in risky behaviors; rather, alcohol influences people’s responses according to which cues are most salient (summary by Giancola, Josephs, Parrott, & Duke, 2010). For instance, intoxicated persons were more willing to engage in unprotected sexual intercourse than sober persons in situations when impelling cues for engaging in unprotected sexual intercourse were salient, but were less willing when inhibiting cues were salient (MacDonald, Fong, Zanna, & Martineau, 2000). Moreover, intoxicated persons behaved more aggressively than sober persons in the presence of provocative cues but they behaved less aggressively when their attention was directed toward distracting cues (Giancola & Corman, 2007). In the same vein, intoxicated persons’ anxiety increased when a stress-evoking cue (giving a speech) was made salient, but their anxiety decreased when attention was drawn toward distracting cues (Josephs & Steele, 1990). Finally, alcohol leads to exaggeration of either situational or dispositional causes of behavior, depending on which factors were most salient (Herzog, 1999). These studies suggest that alcohol-myopic effects occur when cues are explicitly activated (i.e., made salient). It is less clear, however, whether alcohol myopic effects also occur, when cues (i.e., mental representations) are implicitly activated. Moreover, whether alcohol myopia is a mechanism by which alcohol affects commitment to important personal goals has not yet been investigated.

**Alcohol and Goal Commitment**

Goal commitment has been defined as “one’s attachment to or determination to reach a goal” (Locke, Latham, & Erez, 1988, p.24). Predicting persistence and intensity of goal striving, commitment depends on the desirability and feasibility of the goal. Thus, people feel strongly committed to desirable goals that are feasible and weakly committed to desirable goals that are not feasible. Desirability (i.e., incentive value) is operationalized by the subjective importance of the goal and feasibility (i.e., expectations of success) is operationalized by people’s judgments about the likelihood of goal attainment (Bandura, 1997; Locke et al., 1988; summary by Oettingen & Gollwitzer, 2001).

According to action identification theory (Vallacher & Wegner, 1987), features related to the desirability of a goal are more likely to become salient in people’s cognitions than features related to its feasibility. Because alcohol myopia leads people to primarily attend to the most salient aspects, Sevincer and Oettingen (2009) suspected that alcohol causes people to focus on the desirability...
rather than on the feasibility of their goals. Focusing on the desirability in turn should urge people to reach out for the goals. Indeed, Sevincer and Oettingen (2009) observed that intoxicated (vs. sober) persons felt strongly committed to their goals irrespective of their expectations of attaining them. Students named an important personal goal (e.g., starting a romantic relationship) and indicated their expectations. Thereafter, they either consumed alcohol or a placebo. Finally, students reported their commitment. Intoxicated students felt strongly committed regardless of whether they had high or low expectations. Thus, when expectations were low, intoxicated students felt more committed than sober students. However, whether alcohol-myopia indeed is a mechanism for this effect of alcohol on commitment has not yet been tested.

One way to examine whether alcohol myopia is a mechanism for the effect of alcohol on commitment is to manipulate the salience of particular goal-related information. As noted above, according to alcohol-myopia theory, intoxicated persons are disproportionately influenced by the most salient information. Thus, when low expectations are made salient, alcohol-myopia theory would predict that intoxicated persons disproportionately focus on their low expectations. Consequently, in such a situation intoxicated persons should feel less rather than more committed than sober persons.

Explicit and Implicit Activation of Low Expectations

The salience of an item can be defined as the state or quality by which it stands out relative to its neighbors. Information can be salient because particular cues in the environment stand out relative to other cues (e.g., a red dot surrounded by white dots; Higgins, 1996). Information can also be salient because particular mental representations are more activated relative to other mental representations (Bargh & Chatrand, 2000; Steele & Josephs, 1990).

Previous research has shown alcohol-myopic effects by manipulating the salience of particular cues in the environment. For example, cues were explicitly made salient by highlighting information in a questionnaire (Herzog, 1999; MacDonald et al., 2000; MacDonald, Zanna, & Pang, 1995), pointing out information during a telephone interview (MacDonald et al., 1995), presenting words in red script on a screen (Curtin, Patrick, Lang, Cacioppo, & Birbaumer, 2001), asking persons to track visual stimuli on a screen (Giancola & Corrigan, 2007), orally requesting persons to engage in a particular activity (Steele, Critchlow, & Liu, 1985), and applying eye-catching hand stamps (MacDonald et al., 2000). Based on previous research that explicitly activated information by highlighting it in a questionnaire (MacDonald et al., 2000), in Study 1 we activated low expectations by highlighting them in the experimental materials. We hypothesized that when low expectations are explicitly activated (vs. not activated) intoxicated students would feel less committed than students who consumed a placebo.

However, mental representation can also be implicitly activated by subliminal priming (Bargh & Chatrand, 2000; Higgins, 1996). In subliminal priming, a particular mental representation is activated by the presentation of a sensory stimulus below the threshold for conscious perception. The activated representation in turn affects people’s subsequent responses (Bargh & Chatrand, 2000). In Study 2, we tested whether alcohol-myopic effects occur as a result of implicit activation of mental representations. Specifically, we suspected that subliminally priming students with words related to their low expectations (e.g., “unattainable”) versus priming them with a neutral control stimulus would cause intoxicated students to feel less committed than students who consumed a placebo.

Study 1: Low Expectations—Explicitly Activated

In Study 1 we manipulated the salience of students’ low expectations in an explicit way. We suspected that explicitly activating low expectations would lead intoxicated students to feel less committed than those who consumed a placebo.

Method

Participants and design. In total, 108 undergraduate students (59 women, M age = 23.89 years) at a large German university took part in a study on “alcohol and perception.” To exclude students who consume alcohol at a high-risk level we screened them by telephone with the Brief Michigan Alcoholism Screening Test (Pokorny, Miller, & Kaplan, 1972). In addition, students reported the frequency (number of drinking occasions per week) and quantity of their drinking (number of standard drinks consumed per occasion). Only students who were at least 18 years of age and not on medication were allowed to participate. Female students took a pregnancy test before the experiment to ascertain that they were not pregnant. We asked students to abstain from eating for 4 hr and from drinking alcohol for 12 hr before the experiment; students were also requested to refrain from driving to the experiment. They received course credit. Two students were omitted from the analyses because German was not their native language and an additional two because of technical difficulties. The study used a 2 (beverage content: alcohol vs. placebo) × 2 (explicit activation of low expectations: yes vs. no) design.

Procedure. Experimental sessions took place after 12:00 p.m. Students were run individually and completed the experiment on a computer. The experimenter informed the students about the procedure and took their weight and height.

Identity goal with low expectations. We asked students to name an identity goal that is important to them but for which they had low expectations of attaining it. We chose a goal from the identity domain because realizing one’s desired identity is highly important to people (Markus & Nurius, 1986). Students named, for example, “becoming a professional soccer player.” To ensure that students indeed named goals that were important to them but that they were unlikely to attain, we asked “How important is it to you that you will attain your goal?” and “How likely do you think it is that you will attain your goal?” Answer scales ranged from 1 (not at all) to 7 (very).

Beverage administration. We randomly assigned students to one of the four conditions. To administer the beverages we used the same procedure as Sevincer and Oettingen (2009). The amount of alcohol in the alcohol condition was calculated individually for each student to result in a peak blood alcohol content (BAC) of .07%.

Explicit activation of low expectations and goal commitment. To activate (vs. not activate) low expectations, we used two versions of three commitment items. In the no activation conditions, we asked: “How determined are you to attain your goal?” “How disappointed would you be if you did not attain your goal,” and “How hard would it be for you if you did not attain...
your goal?" All items have been successfully used in previous research to assess commitment (Oettingen, Pak, & Schnetter, 2001; Sevincer & Oettingen, 2009). In the activation conditions, we added the subordinate clause that you think you are unlikely to attain in bold type to every item (e.g., “How determined are you to attain your goal that you think you are unlikely to attain?”).

Answer scales ranged from 1 (not at all) to 7 (very). We combined the three items into an index of commitment (α = .87).

Repeated assessment of expectations and incentive value. Activating low expectations might change students’ level of expectations and incentive value (i.e., importance), and these changes might in turn affect students’ commitment. To account for this alternative explanation, we measured the two variables twice, once before and once after the activation manipulation using the items as described above.

Manipulation check. To check the effectiveness of the placebo manipulation, we asked students to estimate the amount of alcohol consumed equivalent to bottles of beer (333 ml). We fully debriefed students and asked them to remain in the laboratory until their BAC dropped below .03%.

Results and Discussion

Drinking habits. Students consumed on average 6.53 (SD = 5.49) standard drinks per week.Weekly alcohol consumption did not differ between conditions, F(3, 104) = .84, p = .47.

Blood Alcohol Concentrations. Students in the alcohol conditions had a mean BAC of .071% (SD = .023). BAC did not differ between the two alcohol conditions (activation vs. no activation), t(52) = 1.17, p = .25.

Manipulation check. Four students in the placebo conditions indicated not having consumed any alcohol, and were excluded from the analyses. The remaining students in the placebo conditions estimated having consumed fewer bottles of beer (M = 2.81, SD = 1.23) than those in the alcohol conditions (M = 4.04, SD = 1.27), t(102) = 5.02, p < .001. This finding is not unusual in studies that employ moderate to high alcohol doses (Martin & Sayette, 1993).

Descriptive analyses. Mean expectation of attaining the identity goal was below the midpoint of the 7-point scale (M = 3.10, SD = 1.36), indicating that students followed our instructions to name goals for which they had relatively low expectations. Mean incentive value was 4.76 (SD = 1.46) on the 7-point scale, indicating that students indeed named goals that were important to them. Expectation and incentive correlated positively, r = .32, p = .001.

Goal commitment. A 2 × 2 ANOVA with beverage content (alcohol vs. placebo), activation of low expectations (yes vs. no) as between-subjects variables and commitment as dependent variable revealed the predicted Beverage Content × Expectancy Activation interaction effect, F(1, 95) = 4.71, p = .03. As predicted, when low expectations were activated, intoxicated students (M = 3.17, SD = 1.44) felt marginally less committed than students who consumed a placebo (M = 4.04, SD = 1.64), t(45) = 1.95, p = .057. In contrast, when low expectations were not activated there was no difference between intoxicated and sober students (M = 4.20, SD = 1.58 and M = 3.80, SD = 1.15; t(50) = 1.04, p = .31; Figure 1).1 Apparently, explicitly highlighting students’ low expectations in questionnaire form successfully led intoxicated, but not sober students, to feel less commitment. In Study 2, we tested whether alcohol-myopic effects on commitment also occur when low expectations are implicitly activated.

Changes in expectations and incentive value. Neither students’ mean level of expectations nor the incentive value changed as a function of whether low expectations were activated or not, Fs < .95, ps > .33. These results indicate that neither expectations nor incentive value were affected by the salience manipulation. Consequently, the differences between conditions in commitment cannot result from changes in expectations or incentive value.

Study 2: Low Expectations–Implicitly Activated

In Study 2 we examined whether alcohol-myopic effects on commitment also occur because of implicit activation of low expectations by subliminal priming. We suspected that implicitly activating students’ low expectations would lead intoxicated students to feel less committed than those who consumed a placebo. Moreover, to investigate whether our finding from Study 1 can be replicated in a different life domain than the identity domain, we asked students to name an interpersonal goal. We chose the interpersonal domain because interpersonal relationships are generally deemed to be very important (Baumeister & Leary, 1995).

Method

Participants and design. In total, 108 undergraduate students (39 female, M age = 23.86 years) at a large German university took part in a study on “alcohol and perception.” Students had to meet the same requirements as in Study 1. The study used a 2 (beverage content: alcohol vs. placebo) × 2 (implicit activation of low expectations: yes vs. no) design.

Procedure. Experimental sessions took place after 12:00 p.m. Students were run individually and prepared for the experiment like in Study 1 (e.g., they were informed about the procedure and their weight and height were taken).

Interpersonal goal with low expectations. Students named an interpersonal goal that is important to them but for which they had low expectations of attaining it. To assess expectations and incentive value we used the same items as in Study 1.

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1 We did not observe any main or interaction effects with gender in Study 1 or 2, Fs < 2.17, ps > .14.
Beverage administration. We randomly assigned students to one of the four conditions. The beverage administration and the BAC measurement followed the same procedure as in Study 1.

Implicit activation of low expectations. All students completed a primed lexical-decision task. The same procedure was successfully used in previous studies as a subliminal priming manipulation (Shah, Friedman, & Kruglanski, 2002; for a summary see Bargh & Chartrand, 2000). Students had to judge as quickly and as accurately as possible whether a presented target was a word or a nonword. Unbeknownst to the students, each target was preceded by a prime, which appeared in white letters on a black computer screen for 50 ms and was backward masked by a letter string of xs for 100 ms. The letter string was equal in length to the prime. The target was then presented after a delay that varied randomly between 200 and 300 ms so that students would not anticipate its presentation. Students would press one key if the presented target was a word and a different key if it was a nonword. Thereafter, a fixation cross appeared for 500 ms. This procedure was repeated 200 times. In the activation condition, the prime words were “unattainable” and “unrealizable.” The two prime words were randomly presented a 100 times each. In the no activation condition the primes consisted of a neutral control stimulus (a letter string: “xxxxxxxxxx”).

Goal commitment. To strengthen our dependent variable, we added three more items to our three commitment items from Study 1. Specifically, we added “How hard will you try to attain your goal?,” “How much will you take the initiative to attain your goal?,” and “How close are you to initiating action toward attaining your goal?” All items have been used in previous studies to assess commitment (Oettingen et al., 2001; Sevincer & Oettingen, 2009, 2010). The 7-point scales ranged from 1 (not at all) to 7 (very). We combined the six items into an index of commitment (α = .87). The pattern of results (see below) stayed the same regardless of whether the new items were included or not. As in Study 1, we measured expectations and incentive value a second time using the same items as before.

Manipulation check. As in Study 1, we asked students to estimate the amount of alcohol consumed equivalent to bottles of beer. Moreover, to assess whether students were aware of the prime, we used a funnelled debriefing procedure (Bargh & Chartrand, 2000). No student reported seeing any of the primes presented nor could they identify any of the primes after being told of their existence. Students were fully debriefed and asked to remain in the laboratory until their BAC dropped below .03%.

Results and Discussion

Drinking habits. On average students consumed 8.76 (SD = 8.55) standard drinks per week. Weekly alcohol consumption did not differ between conditions, F(3, 103) = .74, p = .53.

Blood alcohol concentrations. Students in the alcohol conditions had a mean BAC of .074% (SD = .010). BAC did not differ between the two alcohol conditions (activation vs. no activation), t(52) = .03, p = .98.

Manipulation check. Four students in the placebo conditions and one student in the alcohol conditions indicated not having consumed any alcohol. They were excluded from the analyses. The remaining students in the placebo conditions estimated having consumed fewer bottles of beer (M = 3.28, SD = 1.22) than those in the alcohol conditions (M = 4.03, SD = .92), t(101) = 3.54, p < .001.

Descriptive analyses. Mean expectations of attaining the interpersonal goal was below the midpoint of the 7-point scale (M = 2.92, SD = 1.35), indicating that as intended students named goals for which they had relatively low expectations. Mean incentive value was 5.06 (SD = 1.45) on the 7-point scale, indicating that students indeed named goals that were important to them. Expectation and incentive correlated positively, r = .20, p = .04.

Goal commitment. A 2 × 2 ANOVA with beverage content (alcohol vs. placebo), implicit activation of low expectations (yes vs. no) as between-subjects variables, and commitment as dependent variable revealed the predicted Beverage Content × Expectancy Activation interaction effect, F(1, 99) = 7.47, p = .007. When primed with low expectations intoxicated students (M = 3.55, SD = 1.20) felt less committed than those who consumed a placebo (M = 4.62, SD = 1.26), t(49) = 3.11, p = .003. In contrast, when primed with a control stimulus there was no difference between intoxicated students (M = 4.32, SD = 1.24) and sober students (M = 4.05, SD = 1.27), t(50) = .77, p = .45 (see Figure 2). Replicating the pattern of Study 1, the results suggest that activated low expectations lead intoxicated students to feel less committed than those who consumed a placebo. Importantly, Study 2 suggests that alcohol-myopic effects can occur through implicit activation of mental representations.

Changes in expectations and incentive value. As in Study 1, neither expectations nor incentive value changed as a function of whether low expectations were activated or not, Fs < 1.18, ps > .28.

General Discussion

The present experiments suggest that alcohol affects commitment by causing people to disproportionately attend to the most salient information. When low expectations were explicitly activated by highlighting them in a questionnaire (Study 1) or implicitly activated by subliminal priming (Study 2) intoxicated students felt less committed than those who consumed a placebo. These differences in commitment did not result from changes in expectations or incentive value. When low expectations were not activated commitment between intoxicated and sober students did not differ. We asked all students to name a goal that was important to them but for which they had low expectations of attaining it. Thus,
the initial instructions referred to both the desired outcomes and their low feasibility. Indeed, in a situation where two cues are about equally salient intoxicated people’s responses are not necessarily influenced by one more than the other cue (Steele & Josephs, 1990). In contrast to the present research, the initial instructions in Sevincer and Oettingen (2009) referred to the desired outcomes but not to their low feasibility—students were just asked to name a goal that was important to them. Not mentioning low feasibility in the instructions should have facilitated alcohol-myopia on the desired outcomes, leading intoxicated students to feel more committed than sober students.

In both studies, our manipulation that aimed at activating low expectations successfully lead intoxicated students to feel less committed. However, we did not measure whether our manipulation actually activated low expectations. Future research may assess (e.g., by word stem completion tasks) whether experimentally activated low expectations indeed mediate alcohol effects on goal commitment.

Implications for Alcohol Myopia Theory

We can see three implications of the present research for alcohol myopia theory. First, Studies 1 and 2 suggest that alcohol myopia indeed is a mechanism by which alcohol affects people’s commitment to important personal goals. Second, previous research has shown alcohol-myopic effects by explicitly heightening the salience of relevant cues in the environment (summary by Giancola et al., 2010). Study 2 suggests that alcohol myopic effects also may occur because of the subliminal activation of mental representations. Thus, alcohol myopia may affect people’s responses even when people are not aware of the cues. Third, whereas previous studies on alcohol-myopia used cues not directly relevant for participants’ goals, we asked students for their currently most important personal goals and used cues directly related to these goals. Thus, our research expands research on alcohol-myopia by using goal-related cues.

Implications for Psychopathology

People who expect that they cannot realize desired outcomes are prone to experience depressive symptoms, hopelessness, and dysphoria (Cropley & MacLeod, 2003; Miranda, Fontes, & Marroquin, 2008). Our finding that when low expectations are activated alcohol leads people to focus on their bleak chances of reaching the desired outcomes suggests that alcohol intake may potentiate such depressive symptoms, hopelessness, and dysphoria (crying-in-one’s-beer-effect; Steele & Josephs, 1990). This effect of alcohol seems paradoxical as people drink to alleviate negative psychological states (Cox & Klinger, 1988; Hull, 1981; Hussong & Chassin, 1994).

Furthermore, the experience of hopelessness (i.e., the sense that a positive future cannot be attained; Beck, Steer, Kovacs, & Garrison, 1985) is the psychological factor that most consistently predicts suicide (Beck et al., 1985). Therefore, intoxicated people’s disproportionate focus on their bleak chances of realizing their desired future may be one mechanism by which alcohol leads to an increased suicide liability (Sher & Zalsman, 2005). Of importance, Study 2 suggests that even nonconsciously perceived cues may trigger such problematic alcohol-myopic effects.

Conclusion

Alcohol affects commitment to important personal goals by making people disproportionately focus on goal-related information that is most salient. When low expectations of attaining their goals were made salient intoxicated students felt less committed than those who consumed a placebo. Importantly, alcohol-myopic effects not only occurred through explicitly heightening the salience of stimuli in the environment, but also through implicitly activating mental representations.

References


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