

research snapshot

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Explaining reduced gambling after drinking with the alcohol myopia theory

What this research is about

Previous studies have reported mixed results with respect to how alcohol impacts gambling. Some research suggests that alcohol consumption promotes gambling, but other evidence shows that it does not. This study applied the alcohol myopia theory to examine what happens to gambling behaviour after drinking alcohol. Alcohol myopia theory suggests that when cues become salient (i.e., prominent and distinctive), intoxicated people are more likely than non-intoxicated people to attend to those cues and respond accordingly. In relation to gambling, it could be that by making certain gambling cues more salient, intoxicated people would notice them more and therefore gamble less. One such cue is the fact that gambling has a low chance of winning. This research aimed to show how a salient cue of low chance of winning may make people, who have consumed alcohol, gamble less.

What the researchers did

The researchers did a pilot study to test that the cue of low chance of winning was actually salient. The cue displayed a slogan about the low chance of winning in large letters. In contrast, the reward was in small letters. For comparison, a low-chance-not-salient cue displayed the low chance of winning in small letters and the reward in large letters.

In the first study, the researchers recruited 130 university students in Germany. They screened the participants using the Brief Michigan Alcoholism Screening Test and the South Oaks Gambling Screen (SOGS). They excluded participants who showed problematic levels of drinking or gambling. In the lab, the researchers gave the participants four mixed

What you need to know

This study examined whether making the low chance of winning salient would make people who consumed alcohol gamble less than people who did not consume alcohol. The researchers did four studies (three in the lab and one in a natural environment). In all the studies, results showed that when the low chance of winning was salient, people who had consumed alcohol gambled less often and made less risky gambling choice.

drinks. Some received vodka and tonic, and some drank only tonic (placebo). Participants drank the four drinks (within ten minutes each) while watching a movie about traveling in Austria. The researchers measured their blood alcohol level with a breathalyzer and suggested they could play on a slot machine while waiting for their blood alcohol level to drop. Before they started playing, the researchers asked them to estimate how likely they thought they could win and how attractive the reward was to them. Participants were asked these two questions a second time after they finished gambling. Participants played on a slot machine with either the cue of low chance of winning made salient or not salient. The researchers measured the number of trials they played.

In the second study, the researchers recruited 128 individuals from the general population who had gambled in the past three months. They measured their gambling severity via the SOGS. The procedures and methods were identical to study 1, but the researchers increased the amount of the reward and decreased the odds of winning so that the situation would be more like a real gambling situation.

In the third study, the researchers recruited 128 individuals from the general population, but without focusing on recent gambling. Everything was identical to study 1 and 2, except that the researchers used a lottery task to assess risk-taking in gambling. The researchers asked participants to choose between 25 lottery pairs. One option was high risk, where the chance of winning was low, but the reward was high. The other option was low risk, where the chance of winning was high, but the reward was low. The researchers also tracked their eye movements.

In the fourth study, the researchers recruited 121 participants from a local music club with a bar. Instead of offering drinks, they measured their blood alcohol level from their own alcohol consumption. The researchers then asked them to play on a slot machine the same way as in Studies 1 and 2.

What the researchers found

Study 1 showed that in the low-chance-salient cue, participants who consumed alcohol played fewer trials and lost less money than other participants. (i.e., those who did not consume alcohol; those who consumed alcohol but were exposed to the low-chance-not-salient cue; those who did not consume alcohol and were exposed to the low-chance-not-salient cue). Study 2 with recent gamblers from the general population revealed the same results.

Study 3 revealed that in the lottery games, those who were exposed to the low-chance-salient cue and drank alcohol chose the risky tickets less often. They also gazed longer at the low-chance cue compared to the reward. Participants who were exposed to the low-chance-not-salient cue also chose the risky tickets less often if they had drunk alcohol. However, their eye movements did not stay longer on the cue.

Study 4 revealed that participants with a higher blood alcohol level played fewer trials and lost less money on the slot machine when the cue for low chance of winning was salient. When the cue was not salient, there was no relationship between blood alcohol level and gambling trials. A threshold of blood alcohol level of .031% seemed to decrease gambling behaviours when the low chance cue was salient.

How you can use this research

This research could be used to increase awareness about how some responsible gambling messages may be more effective for people under the influence of alcohol. This study could inform prevention initiatives for problem gambling. Future research could replicate this study with individuals with problematic or pathological gambling.

About the researchers

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