

# The WAGER, Vol. 20(4) - Drinking stopping thinking: Alcohol and gambling fallacies

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The idea that alcohol makes bad ideas sound good has become a recurring joke in American music, movies and television[1]. Although popular culture has found humor in alcohol-fueled impairment, in real life the stakes are high, especially when it comes to situations that require thoughtful decision-making, like whether to begin, and when to end, a gambling session. People who gamble can be susceptible to endorsing superstitions, misconceptions, and bad ideas, and clear decision-making can be essential to avoiding their fallout. This week, as part of our efforts to promote [Alcohol Awareness Month](#), The WAGER reviews a study that explores the effects of alcohol and gambling on gambling-related beliefs ([Ellery & Stewart, 2014](#)).

## Methods

- Using printed advertisements and public TV community bulletin boards, researchers recruited video lottery terminal (VLT) players.
- From this sample the researchers selected 60 participants[2] according to their scores on a gambling problem screen.
  - Half of these screened as having no or some problems with gambling (non-pathological gamblers - NPG).
  - The other half screened as being a probable pathological gambler (probable pathological gamblers - PPG).[3]
- Researchers set up a “bar-lab” at the Dalhousie Gambling Laboratory.
  - In a double-blind, randomized assignment process, half the participants drank three or four alcoholic drinks to raise their blood alcohol concentration (BAC)[4]. The remaining participants received similar-tasting placebos.
  - After drinking, participants played VLT in the bar-lab. They had \$80.00 with which to play.
- To measure participants’ mistaken beliefs about gambling, the researchers asked the participants to complete a questionnaire[5] with

items such as, “When I see others winning on VLTs, I feel that my turn is coming, too” and “I sometimes talk to the machine in order to make it do what I want” (*don’t agree at all to strongly agree*).

- All of the participants completed the questionnaire three times: once before drinking, once after drinking, and once after gambling session.
- The researchers used a [mixed-model ANOVA](#) to determine if participant group (NPG or PPG), drink type (alcohol or placebo), or timing (before drinking, after drinking, after gambling) influenced mistaken beliefs about gambling.

## Results

- Consistent with other research, the participants classified as PPG reported more mistaken beliefs overall than those classified as NPGs (Figure).
- Neither gambling nor drinking [significantly](#) changed the mistaken beliefs of participants classified as PPG.
- However, the pattern was more complicated for those who did not have gambling problems.
  - Those who consumed the placebo had less mistaken beliefs over the course of the study.
  - Those who consumed alcohol maintained their mistaken beliefs even after playing VLTs.

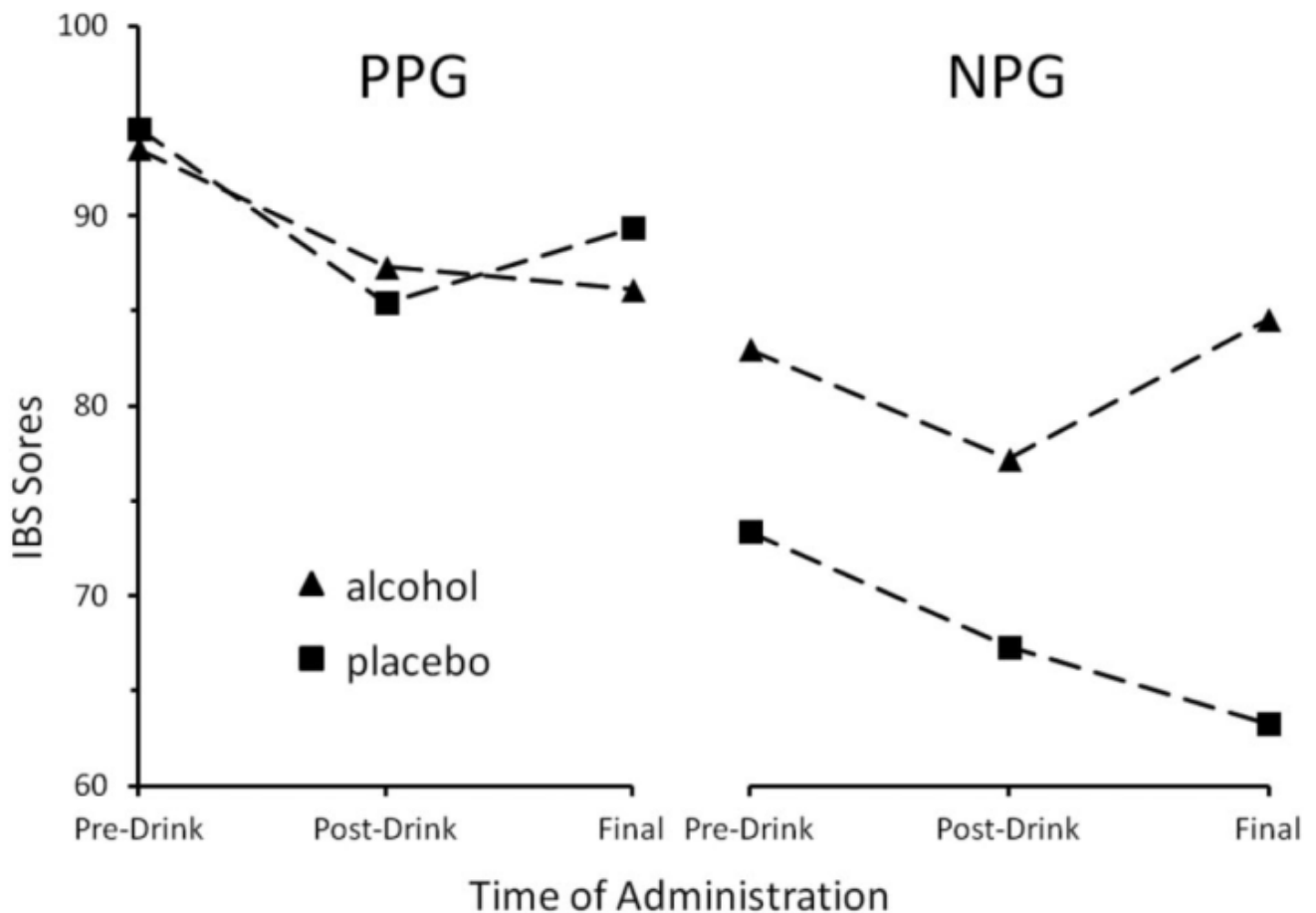


Figure. Average mistaken beliefs (IBS) questionnaire scores for each of the four groups of participants at each of the three times. Higher scores indicate more biases and misconceptions. Reprinted from Ellery and Stewart (2014). Click image to enlarge.

### Limitations

- Within the NPG groups, there appears to be a significant difference between the average pre-drink scores of those who drank alcohol and the average pre-drink scores of those who drank placebos. This represents a possible failure of randomization, but the researchers did not address it (Figure 1).
- Although the lab was designed to resemble a bar, the researchers could not completely replicate the experience of gambling or playing video poker in a bar environment. For example, at the time of the study, smoking was permitted in those establishments, but was not allowed in the lab.
- The participants' wins and losses during the VLT sessions might have influenced their short-term beliefs about gambling. However, the

researchers had no control over participants' gambling outcomes.

- The sample size was relatively small and recruitment was local. The results may not be generalizable to other populations of gamblers.

## **Conclusion**

The interesting result of this study is the effects of alcohol and gambling on participants without gambling problems. Those who were not served alcohol showed on average a steady decrease in mistaken beliefs over the course of the study. The sequence of repeated bets over the course of the session might have produced a learning effect in which the VLT experience itself decreases these participants' beliefs in superstitions and fallacies, which would be adaptive. In contrast, those under the influence of alcohol did not experience the same decrease in mistaken beliefs, potentially indicating that the alcohol slowed down this learning effect, leading to those gamblers holding onto all the maladaptive ideas they had when they started their sessions.

— Matthew Tom

*What do you think? Please use the comment link below to provide feedback on this article.*

## **References**

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[1] Examples include the music video for "One More Drink" by Ludacris f. T-Pain,

the Big Bang Theory episode “The Pants Alternative”, and the movie The Hangover.

[2] The researchers excluded players who were not fluent in English, were not at least 19 years old, did not play video poker, did not consume alcohol, or had circumstances that would have made participation in the study a health risk.

[3] The researchers administered the South Oaks Gambling Screen (Lesieur and Bloom, 1987).

[4] The researchers’ aim was to raise their BAC to 0.06%. As a comparison, in most of the jurisdictions in the United States, the legal limit for driving is 0.08%.

[5] The researchers used the Informational Biases Scale (IBS, Jefferson and Nikki, 2003).