

Commentary on Horn *et al.*: The outcome expectancy in the ‘alcohol-gambling cocktail’

Within the framework of alcohol outcome expectancy theory, Horn and colleagues provide strong empirical evidence that alcohol outcome expectancy is a pathway for the effect of alcohol intake on gambling behaviour.

Gambling and alcohol intake often co-occur in gambling venues such as casinos and pubs. As acute alcohol intake increases risk-taking behaviour [1–3], there is concern that the ‘alcohol-gambling cocktail’ leads to increased risk-taking in gambling. Horn and colleagues [4] bring clarity to this concern and the mixed evidence on the topic by conducting a systematic review and meta-analysis of the empirical literature on the effect of acute alcohol intake on risk-taking in gambling. Based on 20 articles containing 47 alcohol-versus-control group comparisons, they found no significant effects of either acute alcohol intake or blood alcohol concentration on risk-taking in gambling. However, increased risk-taking in gambling was found when the control group drink is a non-alcoholic beverage (e.g. fruit juice), but not a placebo drink. Simply put, in control group comparisons acute alcohol intake increases risk-taking in gambling only when the control group consumes a non-alcoholic beverage rather than a placebo drink.

This finding signals the effect of outcome expectancy in experimental studies on the effect of acute alcohol intake on risk-taking in gambling. Rooted in social learning/cognitive-behavioural theories [5–7], outcome expectancy theory explains behaviour as a product of ‘if-then’ contingencies shaped by reinforcement history [8, 9]. Extended as alcohol outcome expectancy theory [9], behaviour following acute alcohol intake is explained not only as alcohol effects or intoxication [10, 11], but also expectations of such effects primed by social learning and cognition [12]. Alcohol outcome expectancy is, therefore, defined as a long-term memory function about alcohol effects that have automatic activation in alcohol-related situations and have immediate or future behavioural effects [8, 13]. In other words, alcohol outcome expectancy denotes expectations of the immediate or future consequences of alcohol intake [8, 14, 15]. Alcohol outcome expectancy theory [9], therefore, provides apt elucidation of Horn and colleagues’ [4] finding on the implicit significant effect of alcohol outcome expectancy on risk-taking in gambling.

In short, within the framework of alcohol outcome expectancy theory [9], Horn and colleagues’ [4] meta-analysis provides strong empirical evidence that alcohol outcome expectancy is a ‘theoretical software or pathway’ [16], through which alcohol intake affects gambling behaviour. In the gambling field, Horn and colleagues [4] partly answer the recent call [12] for a systematic review of literature on alcohol outcome expectancy theory. Importantly, they show the indispensability of alcohol outcome expectancy assessment and control in experimental studies on the effect of acute alcohol intake on gambling behaviour. Furthermore, they underscore the importance of developing alcohol outcome expectancy measures specific to the gambling context as a compliment to measures of gambling outcome expectancy [17, 18] in experimental studies on this topic. Such work will elevate the evidence base on the effect of alcohol intake on gambling behaviour.

KEYWORDS

Alcohol, alcohol outcome, expectancy theory, gambling, meta-analysis, risk-taking

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DECLARATION OF INTERESTS

None.

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REFERENCES

1. Borges G, Bagge CL, Cherpitel CJ, Conner KR, Orozco R, Rossow I. A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychol Med.* 2017;47:949–57.

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2. Scott-Sheldon LA, Carey KB, Cunningham K, Johnson BT, Carey MP. Alcohol use predicts sexual decision-making: a systematic review and meta-analysis of the experimental literature. *AIDS Behav.* 2016;20:19–39.
3. Taylor B, Irving HM, Kanteres F, Room R, Borges G, Cherpitel C, et al. The more you drink, the harder you fall: a systematic review and meta-analysis of how acute alcohol consumption and injury or collision risk increase together. *Drug Alcohol Depend.* 2010;110:108–16.
4. Horn TL, Whelan JP, Weil GT. Does acute alcohol consumption increase risk-taking while gambling? A systematic review and meta-analysis. *Addiction.* 2022. <https://doi.org/10.1111/add.15896>
5. Bandura A. *Social Learning Theory* Englewood Cliffs, NJ: Prentice Hall; 1977.
6. Bandura A. *Social Foundations of Thought and Action* Englewood Cliffs, NJ: Prentice Hall; 1986.
7. Miller N, Dollard J. *Social Learning and Imitation* New Haven, CT: Yale University Press; 1941.
8. Jones BT, Corbin W, Fromme K. A review of expectancy theory and alcohol consumption. *Addiction.* 2001;96:57–72.
9. Oei TP, Baldwin AR. Expectancy theory: a two-process model of alcohol use and abuse. *J Stud Alcohol.* 1994;55:525–34.
10. Casbon TS, Curtin JJ, Lang AR, Patrick CJ. Deleterious effects of alcohol intoxication: diminished cognitive control and its behavioral consequences. *J Abnorm Psychol.* 2003;112:476–87.
11. Spinola S, De Vita MJ, Gilmour CE, Maisto SA. Effects of acute alcohol administration on working memory: a systematic review and meta-analysis. *Psychopharmacology (Berl).* 2022;239:695–708.
12. Cooke R. Psychological Theories of Alcohol Consumption. In: Cooke R, Conroy D, Davies EL, Hagger MS, de Visser RO, editors *The Palgrave Handbook of Psychological Perspectives on Alcohol Consumption* Cham: Palgrave Macmillan; 2021. p. 25–50.
13. Reich RR, Goldman MS, Noll JA. Using the false memory paradigm to test two key elements of alcohol expectancy theory. *Exp Clin Psychopharmacol.* 2004;12:102–10.
14. Engel SG, Schaefer LM, Davis J, Steffen K. Review of changes in the reinforcing effects of alcohol in weight loss surgery patients. *Curr Psychiatry Rep.* 2021;23:69. <https://doi.org/10.1007/s11920-021-01281-5>
15. Goldman MS, Darkes J. Alcohol expectancy multiaxial assessment: a memory network-based approach. *Psychol Assess.* 2004;16:4–15.
16. Goldman MS. The alcohol expectancy concept: applications to assessment, prevention, and treatment of alcohol abuse. *Appl Prev Psychol.* 1994;3:131–44.
17. Donati MA, Derevensky JL, Cipollini B, Leonardo LD, Sareri GI, Primi C. Measuring gambling outcome expectancies in adolescents: testing the psychometric properties of a Modified Version of the Gambling Expectancy Questionnaire. *J Gambli Stud.* 2022;38:31–52.
18. Gillespie MA, Derevensky J, Gupta RI. Adolescent problem gambling: developing a gambling expectancy instrument. *J Gambli Issues.* 2007;19:51–68.

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