False gambling beliefs as emerging from broader beliefs during problem-solving

What this article is about

Gambling activities are designed to generate payoffs that are unfair to players given the probability of winning. This results in long-term loss for the player and profit for the gambling venue. Some gamblers nevertheless believe they can “beat the house”. These beliefs are called erroneous gambling-related beliefs (EGRBs). EGRBs are false beliefs that do not recognize the mechanisms in place for guaranteeing a long-term loss for the player. EGRBs can play a role in the development and maintenance of problem gambling.

This article reviews the literature and proposes that EGRBs develop through a problem-solving process focused on how to beat the house. It describes a classification scheme of EGRBs. It also suggests ways to use the classification scheme in researching and treating gambling disorder.

What was done?

The authors reviewed 40 published research studies that described EGRBs in different kinds of gambling activities. They also proposed an explanation of how EGRBs develop.

Based on their proposed explanation, the authors classified various EGRBs and provided evidence for each category. The researchers also suggested ways to use the classification scheme for researching and treating gambling disorder.

What you need to know

Past studies suggested that EGRBs result from biases that stem from mental short-cuts in decision-making. The current authors proposed, instead, that EGRBs emerge from problem-solving. For example, a person playing on an electronic gaming machine might consider three actions for winning: (1) choosing machines that have not won in a while; (2) not playing on popular days for gambling to avoid being tricked by venue owners; or (3) carrying a lucky charm. Only after trying each solution and finding it unsuccessful would the player give up on the problem (i.e., stop trying to beat the house). The player could continue playing for other reasons, such as a motivation to escape (i.e., “zone out” from) difficult life circumstances.

Why is this article important?

In this article, the authors proposed that many erroneous gambling-related beliefs (EGRBs) are developed through a problem-solving process of how “to beat the house”. Actions and strategies on how to beat the house are informed by broader background beliefs. The authors proposed that EGRBs could be classified into four categories. These include: beliefs based on theories of supernatural forces; beliefs based on concepts of randomness; beliefs based on concepts of randomness and theories of supernatural forces; and beliefs based on theories of natural events other than randomness. The authors suggested how these categories could be used to improve research and treatment of gambling disorder.
gods, ghosts, etc. These beliefs lead to EGRBs like thinking that gambling wins are “deserved” through good behaviour or that some rituals lead to wins.

The second group of EGRBs are those generated based on human concepts of randomness. People expect that random outcomes will not feature long runs of any one possible outcome. For instance, after four coin flips showing heads, one would not expect another head. This is known as the “gambler’s fallacy”. This generates other EGRBs such as thinking that always picking the same response option (e.g., same roulette number) will eventually win.

The third group of EGRBs are those generated based on concepts of randomness and theories of supernatural forces. An example would be the belief in cyclical luck, with luck appearing only once in a while.

The final group of EGRBs are those generated based on human theories of natural events other than randomness. This group of EGRBs stems from background beliefs about business cycles, physics, and biology. An example of an EGRB of this type would be the belief that harder dice throws are more likely to reveal a higher number. Another example are beliefs that gaming machines are tweaked to pay out less on popular days for gambling (e.g., Thursday nights/paydays) to improve providers’ profit margins.

The two-part breakdown of “natural” and “supernatural” EGRBs align with previous research. For instance, there are “primary” (natural) and “secondary” (supernatural) illusions of control mentioned in past research. Other research has suggested EGRBs relating to (1) luck and rituals, and (2) the gambler’s fallacy and other non-supernatural events.

Who is it intended for?

The proposed EGRB classification scheme could be used to improve gambling disorder research and treatment. Researchers could take into account the classification scheme when selecting an EGRB survey, designing a survey, or developing measures of EGRBs. Treatment providers could take into account the classification scheme when using cognitive behavioural therapy (CBT) to treat gambling disorder. CBT is often used to treat gambling disorder. It helps clients with challenging patterns of thought and connected behaviour. Treatment providers could aim to correct EGRBs and point out the consequences of continued gambling. Therapies could be tailored to address each client’s EGRB category.

About the researchers

Anastasia Ejova is affiliated with the University of Adelaide in South Australia, and LEVYNA Laboratory for the Experimental Research of Religion at Masaryk University in Brno, Czech Republic. Keis Ohtsuka is affiliated with the Institute for Health and Sport (iHeS) at Victoria University in Melbourne, Australia. For more information about this study, please contact Anastasia Ejova at anastasia.ejova@adelaide.edu.au.

Citation


About Gambling Research Exchange (GREO)

Gambling Research Exchange (GREO) has partnered with the Knowledge Mobilization Unit at York University to produce Research Snapshots. GREO is an independent knowledge translation and exchange organization that aims to eliminate harm from gambling. Our goal is to support evidence-informed decision making in safer gambling policies, standards, and practices. The work we do is intended for researchers, policy makers, gambling regulators and operators, and treatment and prevention service providers.

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