GAMBLING
RE**S**EA**R**C**H**
REVEALS

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Graduate Student Gillian Russell: Using Word Association, Behaviour Association and Attentional Bias to Evaluate Gamblers' Unconscious Gambling Involvement

Researchers frequently use screening and assessment tools (e.g., Canadian Problem Gambling Index [PGSI]) when measuring gambling involvement among individuals. Concerns identified with these types of self-reported measures include respondents who interpret questions differently than researchers intended, who have difficulty with memory recall, or who provide answers based on what they believe is socially desirable.

In attempting to avoid the aforementioned problems when measuring non-gambling behaviours, addictions researchers[1] have focused their attention on what they describe as implicit cognitive processes. These processes assume the choices and behaviours made by an individual are influenced by unconscious associations within their memory which become spontaneously activated under certain conditions. Until now, very little research has explored these processes in the context of gambling.

University of Lethbridge graduate student Gillian Russell (Faculty of Psychology) and her supervisor Dr. Rob Williams hypothesized that:

The primary aim of the Alberta Gambling Research Institute, a consortium of the Universities of Alberta, Calgary, and Lethbridge, is to support academic research related to gambling.

MISSION

To facilitate evidence-based broad research that informs gambling public policy and educates Albertans and the wider audience about the effects of gambling.

(1) Gamblers who spend the most time and money should have the greatest number of implicit cognitive associations (i.e., ambiguous word/behavior associations biased towards gambling-related interpretations), and; (2) gamblers will display an attentional bias as indicated by having a delayed reaction time when asked to locate an object in a picture that falls outside of the primary gambling-related "look-zone" of that image.

To test their hypotheses, Russell recruited 136 undergraduate student participants (22% male; 77% female; median age 21.4 years old) and had them complete two association-based tasks. With the first task participants were instructed to respond quickly with the first word or phrase that came to their mind when provided with a series of words with likely gambling connotations (e.g., draw, book, chip, etc.). A second associative task asked participants to respond with the first action or behaviour that came to mind in response to a series of statements based on common motivations for gambling engagement (e.g., make money, have fun, feel like celebrating, etc.).

Next, participants viewed 26 separate images and were asked to locate the hidden object (**See Figure 1: "The Lorax"**) within images with and without gambling-related stimuli (**See Figures 2, 3, & 4**). Response times were recorded in milliseconds and used to measure attentional bias of participants.

Figure 1: "The Lorax" was the hidden figure which participants were asked to find in order to measure attentional bias.

Figure 2: Can you locate "The Lorax" hidden within this image containing gambling stimuli?

Figure 3: Can you locate "The Lorax" hidden within this image containing non-gambling stimuli?

Russell's analysis of her experimental results revealed that there were non-significant differences in reaction time between regular gamblers (those that gambled once per month or more) and non-regular gamblers (those that gambled less than once per month). Despite non-significance, she concluded that the general trend found in the data was supportive of the prediction that regular gamblers are more likely to focus on gambling related stimuli than non-regular gamblers. Russell has plans to further refine her methodology and assess a far larger sample from the general population using online survey techniques.

Gillian Russell is an MSc Student (Psychology) at the University of Lethbridge. Her preliminary findings were presented as a research poster entitled "Implicit Cognition and Gambling: The Development of Three Implicit Measures of Gambling Involvement" at the Institute's April 2016 conference in Banff, Alberta, as well as at the monthly meeting of the Gambling Research Group @ the U. of Lethbridge held April 20, 2016.

1 For a review of this research see: Stacy, A. W., & Wiers, R. W. (2010). Implicit cognition and addiction: A tool for explaining paradoxical behavior. *Annual Review of Clinical Psychology, 6*, 551-575. **doi:10.1146/annurev.clinpsy.121208.131444**

Figure 4: Can you locate "The Lorax" hidden within this image containing gambling stimuli?

Our Website Address Has Changed

As of **June 24th** the Institute web site address is

http://abgamblinginstitute.ca/

Site hosting is now being provided by the University of Calgary. Please update your bookmarks and hyperlink connections to the Institute.

Research Takeaways and Inspirations From the 16th International Conference on Gambling & Risk Taking **Las Vegas, NV, June 6-10, 2016**

The International Conference on Gambling & Risk Taking is one of the oldest and most prestigious gatherings of gambling researchers on the planet. Known informally as "The Eadington Conference" in memory of gambling economist and conference founder Dr. Bill Eadington (U. of Nevada, Reno), the event has been held every three years since 1974. This past June conference principal organizer Dr. Bo Bernhard (U. of Nevada, Las Vegas) welcomed more than 600 scholars, industry leaders, regulators, clinicians and even professional gamblers to the event.

Institute Research Director Dr. Nady el-Guebaly has provided the following personal reflections from the conference which could be relevant to both Alberta's gambling landscape and its gambling research initiatives:

- Opening conference keynote presentation "Welcome to the Mirage: Reflections on a Quarter Century of the Reinvented Casino Resort" by Steve Wynn of Wynn Resorts was especially inspiring. Wynn discussed his **visionary focus on entertainment rather than gambling** as the distinguishing reason for Las Vegas having thrived as a tourist destination over the years.

- Should the Institute and the Alberta Gaming & Liquor Commission (AGLC) initiate an **examination of the concept of Integrated Resort as adapted to Alberta**? This integrated resort combines hotels, shopping, restaurants, and entertainment alongside casino gambling to generate several complimentary revenue streams.

- **What should we know about the E-Sports phenomenon?** E-Sports involve competitive video gaming events that are filling up sports arenas worldwide with millennials who are tuning in online in numbers exceeding established professional sports leagues.

- **Defining a role for the Alberta gaming industry.** Industry will pay attention to the Institute's Banff meeting when at least one organized session is available for them and from them. A constructive dialogue is overdue.

- **The "Reno Model" framework** set out a roadmap for the adoption and implementation of responsible gambling and harm minimization initiative and is now twelve years old. This may be an opportune time to evaluate its legacy in Alberta and elsewhere.

- The **Macau Special Administrative Region of the People's Republic of China** sent several faculty members (some have previously lived in Alberta!) along with 25 students. Their research presentations were well received and it would be constructive to have them participate in the Institute's annual Banff conference.

- The University of Nevada, Las Vegas, is starting the **International Centre for Gaming Regulation (ICGR)** and it will be headed by former Executive Director of the Alderney Gambling Control Commission André Wilsenach.

- There could be a growing appetite for **an International Consortium** on Gambling Research. Individual research organizations remain fragile as evidenced by the closing of three centres. The issue of funding for gambling research was widely discussed.

- Lastly, **the Alberta Gambling Research Institute was well represented** by presentations from Andrew Kim, Amanda Fernandez, Dr. Garry Smith, Dr. Rob Williams, Dr. Yale Belanger, Dr. Barry Scholnick and yours truly, Dr. Nady el-Guebaly.

Presentations from the event will soon be archived and made available from the following web address: **http://digitalscholarship.unlv.edu/gaming_institute/**.

LIBRARY

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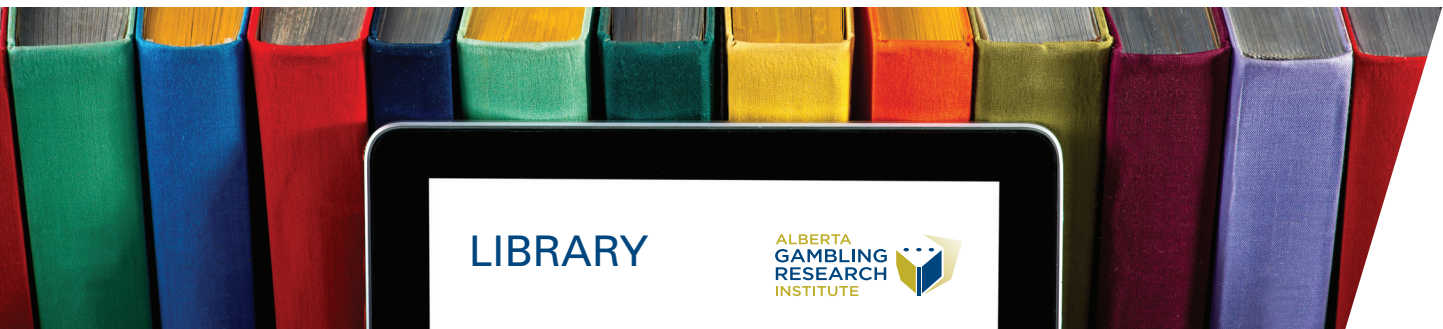
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2016-17 Student Scholarship Recipients

The Institute is pleased to announce the following 2016-17 Scholarship and Research Allowance Award Recipients:

- **Jennifer Bertrand**
  Masters (Physical Education & Recreation, U. of Alberta)

- **Hyoun S. (Andrew) Kim**
  PhD (Clinical Psychology, U. of Calgary)

- **Catherine Laskowski**
  PhD (Neuroscience, U. of Lethbridge)

- **Chang Lu**
  PhD (Business, U. of Alberta)

- **Dustin Marcinkevics**
  PhD (Educational Psychology, U. of Alberta)

- **Samuel M. Ofori Dei**
  PhD (Health Sciences, U. of Lethbridge)

- **Jeffrey Pisklak**
  PhD (Psychology, U. of Alberta)

- **Jennifer Prentice**
  PhD (Clinical Psychology, U. of Calgary)

- **Christina Rash**
  Masters (Psychology, U. of Calgary)

- **Jennifer Swan**
  PhD (Clinical Psychology, U. of Calgary)

- **Nathan Wispinski**
  Masters (Psychology, U. of Alberta)

- **Gabriel Yanicki**
  PhD (Anthropology, U. of Alberta)