

# CEAR Workshop: Gambling

April 2 and 3, 2012

## General Information

Gambling behavior reflects a wide range of attitudes towards risk, and perceptions of risk. It fundamentally challenges the methodologies of several traditional academic disciplines, particularly in the form of what is variously called compulsive or addictive gambling. The objective of this workshop is to get together a group of academics with clear interests in the topic of gambling from a range of disciplines, ideally to help develop a multi-institution, multi-year research agenda. There are large, unexploited gains from having serious academic researchers get together more or less annually around this specific topic, and develop a tight network of researchers over a number of years. We do not intend this network to be exclusionary, and expect it to evolve over the years naturally. Although there will be a strong contingent of economists participating, we are committed to having many disciplines participate.

## Organizers

Glenn Harrison and Don Ross are the organizers of this workshop, which is funded by the Center for the Economic Analysis of Risk (CEAR) at Georgia State University. See [cear.gsu.edu](http://cear.gsu.edu) for more information on CEAR. Contact Ross at [don.ross@uct.ac.za](mailto:don.ross@uct.ac.za) out the substance of the workshop, and contact Mark Schneider at [cear@gsu.edu](mailto:cear@gsu.edu) with questions about participation and logistics.

## Dates & Times

Monday 4/2 – 9am to 5.45pm. Refreshments and lunch will be provided.  
Tuesday 4/3 – 10am to 4.15pm. Refreshments and lunch will be provided.  
Contact Mark Schneider at [cear@gsu.edu](mailto:cear@gsu.edu) for special dietary needs.

## Location

The CEAR Seminar Room is on the 11<sup>th</sup> floor of the J. Mack Robinson College of Business at Georgia State University. Here is a map link to [CEAR](#); the physical address is 35 Broad Street, **11th Floor**, Atlanta, GA 30303.

## Program

### **Monday April 2**

- 9.00 – 9.15 Glenn Harrison (GSU & CEAR) and Don Ross (UCT & CEAR) *Welcome and Introduction*
- 9.15 – 10.15 Adam Goodie (UGA), *Gambling pathology in the constellation of risky behaviors*
- 10.15 – 10.30 Coffee Break
- 10.30 – 11.30 Glenn Harrison (GSU and CEAR) *Gambling Surveys and Gambling Behavior*
- 11.30 – 12.30 Scott Farrow (UMBC) *Issues in the social benefit-cost evaluation of slot machine gambling*
- 12.30 – 1.30 Lunch (buffet in CEAR Seminar Room)
- 1.30 – 2.30 Nancy Petry (UCHC) *Behavioral risk factors and treatment for gambling*
- 2.30 – 3.30 Jon Grant (UMN) *Decision-making in problem gamblers: how to use cognitive tasks to inform pharmacological treatment*
- 3.30 – 3:45 Coffee
- 3.45 – 4.45 David Redish (UMN) *Problem Gambling as vulnerabilities of the human decision-making machinery*
- 4.45 – 5.45 Marc Potenza (Yale) *The Neuroscience of Substance and Non-Substance Addictions: Clinical Implications*
- 6.30 Dinner for invited guests (Location *Ellis Hotel*)

### **Tuesday April 3**

- 10.00 – 11.00 James MacKillop (UGA) *Delay discounting as an Endophenotype for Pathological Gambling*
- 11.00 – 12.00 Rachel A. Volberg (Gemini Research and NORC) *Standardizing Problem Gambling Prevalence Rates: An International Perspective*
- 12.00 – 1.00 Lunch (buffet in CEAR Seminar Room)
- 1.00 – 2.00 Don Ross (UCT and CEAR) *Gambling problems in a non-rich country: A panel study of 300 South African gamblers*
- 2.00 – 3.00 Harold Kincaid (UCT) *Pathological Gambling: Categorical or Dimensional?*
- 3.00 – 3.15 Coffee
- 3.15 – 4.15 Tony Schellinck (Dalhousie ) *The Focal Adult Gambling Screen (FLAGS) and the Focal Youth Gambling Risk Screen (FYGRS): Designing self administered and policy instruments for measuring gambling risk*

## Abstracts

### **Scott Farrow, UMBC,** Issues in the social benefit-cost evaluation of slot machine gambling

Slot machines exemplify a number of issues in the welfare evaluation of a public policy including utility based measures of consumer welfare, transfers, prices, external effects and equity. Gambling is arguably a motivating example in the evolution of behavioral welfare economics. These issues are discussed in the context of the evaluation of the legalization of slot machine gambling in a state.

### **Adam Goodie, UGA,** Gambling pathology in the constellation of risky behaviors.

The pattern of associations between pathological gambling and other risky behaviors is examined, in three domains. One domain is the well-studied comorbid addictive disorders; a second domain is risky sexual behavior; and the third domain is lab-based assessments of financial risk taking. Results are discussed from a diverse community sample of frequent gamblers as well as a sample of college students.

### **Jon Grant, UMN,** Decision-making in problem gamblers: how to use cognitive tasks to inform pharmacological treatment.

This presentation will examine cognitive dysfunction associated with problem gambling. In addition, the presentation will discuss what is currently known about pharmacological treatment of problem gambling and how cognitive tasks can help better target pharmacological options.

### **Glenn Harrison, GSU and CEAR,** Gambling Surveys and Gambling Behavior

Hypothetical surveys are widely employed to screen gamblers. Do the responses to these survey questions correlate with in an actual gambling task with real consequences? We examine the simplest possible betting tasks, constructed to abstract from many of the features of gambling behavior in the wild. We find that there is no evidence that survey responses detect propensities to take risk in this setting. The surveys are either useless for their intended purpose, interact in some subtle manner with the population sampled, or only detect gambling propensities when there are naturalistic cues in the gambling environment. We propose an experimental methodology for rigorously examining those sample selection issues and naturalistic cues. We also examine the re-weighting of individual survey questions, to see if it is possible to render them more predictive.

### **Harold Kincaid, UCT,** Pathological Gambling: Categorical or Dimensional?

Using data from a South African prevalence study and the Problem Gambling Severity Index, taxometric analysis provides evidence for the categorical nature of addictive gambling. These results support the hypothesis that problem gamblers form two distinct groups: a smaller subset of chronically addicted gamblers and a larger group of individuals with intermittent problems in living and also suggest that PGSI cutoff scores should be revised.

### **James MacKillop, UGA,** Delay discounting as an Endophenotype for Pathological Gambling

Consistent evidence independently implicates genetic factors and steep discounting of delayed rewards to pathological gambling, but the prospect of discounting as a mechanism for conferring etiological risk (i.e., an endophenotype) has received relatively little attention. This presentation will review the evidence in each of these domains, with an emphasis on recent evidence supporting the discounting qua endophenotype hypothesis.

**Nancy Petry, UCHC**, Behavioral risk factors and treatment for gambling

This presentation will focus on behavioral risk factors for disordered gambling and its treatment. It will describe results from ongoing and completed clinical trials, along with suggestions for future areas of research.

**Marc Potenza, Yale**, The Neuroscience of Substance and Non-Substance Addictions: Clinical Implications

I will review considerations of how best to consider conditions characterized by excessive engagement in substance-use and non-substance-use behaviors. Neuroscientific data, with a focus on brain imaging findings, will be presented with a focus on pathological gambling and its relationship to cocaine and alcohol dependence. Implications of findings relating neural measures to treatment outcome will be discussed.

**David Redish, UMN**, Problem Gambling as vulnerabilities of the human decision-making machinery

I will present our computational modeling work taking an engineer's view of what we know about the mechanisms of decision-making in humans. Given what we know about decision-making systems, we can identify multiple vulnerabilities in those decision-making systems. To make this concrete, I will show specific examples of these vulnerabilities in the situation-recognition system. I will also show models in which manipulations of these systems can be used to change decisions to produce recovery from problem gambling conditions.

**Don Ross, UCT and CEAR**, Gambling problems in a non-rich country: A panel study of 300 South African gamblers

We report on results of visiting 300 South African gamblers, sorted into 3 groups based on initial PGSI scores, every three months for 18 months. Substantial movement in PGSI categories, including among subjects initially classified as at "no risk" and "high risk", respectively, for problem gambling was observed over the visits. Co-occurring disorders (alcohol abuse, depression, anxiety), and the attributed trait of impulsivity, were found to be associated with increasing PGSI scores over time. We reflect on these results in the context of general factors influencing problem gambling, alcohol abuse, and other forms of counter-normative consumption in South Africa.

**Tony Schellinck (Dalhousie)** The Focal Adult Gambling Screen (FLAGS) and the Focal Youth Gambling Risk Screen (FYGRS): Designing self administered and policy instruments for measuring gambling risk

Based on six phases of research conducted in Canada involving numerous surveys, in-depth interviews and focus groups with gamblers a team of researchers have developed two screens for risk due to gambling and to identify problem gamblers. The first screen (FLAGS) is a ten construct instrument that categorizes adults into six categories of risk. The second instrument (FYGRS) has thirteen constructs that similarly categorize adolescents into six categories of risk due to gambling. Discussion will focus on the results of two surveys completed within the last year, one with 1223 adult gamblers in Ontario, and one with 900 adolescents in Nova Scotia.

**Rachel A. Volberg (& Robert J. Williams), Standardizing Problem Gambling Prevalence Rates: An International Perspective**

The purpose of this project was to standardize prevalence rates from all published and unpublished studies that have included an adult problem gambling prevalence survey to facilitate comparison of rates between jurisdictions and within the same jurisdiction over time. We adjusted problem gambling prevalence rates in all of these surveys to take account of major methodological differences known to influence prevalence estimates. We found that, in most jurisdictions, prevalence decreased relative to earlier rates, that these declines were more evident in some jurisdictions and started at different times and, in many jurisdictions, prevalence had increased prior to a decline. We concluded that the results provide support for the view that increased availability of gambling is related to increased problem gambling as well as for the view that populations tend to adapt over time.

Invited Non-GSU Participants

- Scott Farrow (UMBC) [farrow@umbc.edu](mailto:farrow@umbc.edu)
- Jon Grant [grant045@umn.edu](mailto:grant045@umn.edu)
- Adam Goodie (UGA) [goodie@uga.edu](mailto:goodie@uga.edu)
- Harold Kincaid (UCT) [kincaidharold592@gmail.com](mailto:kincaidharold592@gmail.com)
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- Nathaniel Wilcox (Chapman University and CEAR) [nwilcox@chapman.edu](mailto:nwilcox@chapman.edu)

Confirmed GSU Participants

- Glenn Harrison (RMI)
- Jimmy Martinez-Correa (RMI)
- Lisa Rutström (RCB and Economics)
- Todd Swarthout (Economics)