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Pathological Gamblers May Just Be Less Attentive, Not Necessarily More Impulsive

Serena Bezdjian¹

Washington University, School of Medicine, Department of Psychiatry

Letter to the Editor

Dear Editor,

In their recent study entitled “Go/NoGo performance in pathological gamblers”, Kertzman et al. (2008) assessed the association between impaired response inhibition and pathological gambling (PG) employing a Continuous Performance (CPT) and Go/NoGo tasks. The authors addressed a very interesting topic and attempted to examine the association between impaired response inhibition and PG to delineate the neurocognitive basis for impaired response inhibition. The authors compared the performance on the CPT and the Go/NoGo task on a cohort of pathological gamblers versus healthy controls. Laboratory based measures including the Go/NoGo and CPT may be useful for investigating complex constructs such as impulsivity and inattention because they are not as susceptible to informant biases, and may provide a less tainted assessment of inhibition and/or inattention (Fishbein, 2000). Laboratory procedures also provide precision and control over manipulating the variables related to the desired behavior; thus, the authors’ endeavor is well appreciated.

However, there are some concerns pertaining to the methodology of their study. First, the control subjects were not appropriately matched with the outpatient sample, which may be a leading factor in the observed differences in performance between the two groups. The authors’ analyses indicated that the controls were significantly more educated than the outpatient sample, which is not surprising based on the fact that the control subjects were volunteer medical students. Even though the authors *corrected* for this difference in their analyses, this may still be a relevant point due to the nature of the tasks employed. The CPT and Go/NoGo tasks inherently rely on the subjects’ understanding and attention to the task. Secondly, the exclusion criteria (for both controls and outpatients) may have been too extreme—the sample seemed to exclude people with personality disorders, which may have been interesting to examine within the context of examining neuropsychological performance. Moreover, the authors did not indicate whether there were any *in group* sex differences between males and females in their performance. Previous research has shown that males commit more impulsive errors (nogo errors) than females during continuous performance-type tasks (Newcorn, Halperin, et al., 2001). It may have been interesting to examine differences in male and female pathological gamblers’ performance.

¹Corresponding author: Serena Bezdjian, Washington University School of Medicine, Department of Psychiatry, 40 N. Kingshighway, Suite 4, St. Louis, MO 63108, email: E-mail: bezdjias@epi.wustl.edu.

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Furthermore, the authors did not report the association/correlation between errors of omission (go errors) and errors of commission (nogo errors) in order to clearly establish that the task was properly distinguishing between “attention” and “inhibition” within their study population. It could be the case that the go and nogo errors are highly correlated in their study, which would imply that the task is not appropriately and independently capturing the complex and multidimensional constructs of inhibition and inattention (Evenden, 1999). Moreover, the authors did not have any other measures of *impulsivity* or inhibition to compare their CPT and Go/NoGo results to, which may have strengthened their findings.

Interestingly, the study found a positive correlation between errors of commission (nogo errors) and reaction time in PG, which indicates that PG are taking longer to respond to the stimuli, but are still making errors. This might imply that PG subjects are having some difficulty attending to the task rather than responding “impulsively”. In fact, the study’s results demonstrate that the control subjects may in fact be responding more *impulsively* than the PG outpatients as evidenced by their faster reaction times and high rates of nogo errors, which are both purported measures of inhibition (Halperin, 1991). The authors addressed an important and interesting topic however; some of these points could have been addressed more thoroughly.

Sincerely,

Serena Bezdjian, PhD

Washington University School of Medicine

St. Louis, MO, USA

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