Analysis of Gambling Behavior

1-1-2007

COMMENTARY The Alloplastic Nature of Pathological Gambling

Nancy M. Petry
University of Connecticut Health Center, Npetry@uchc.edu

Gegory J. Madden
University of Kansas

John M. Roll
Washington State University

COMMENTARY

THE ALLOPLASTIC NATURE OF PATHOLOGICAL GAMBLING

Nancy M. Petry
University of Connecticut Health Center

Gregory J. Madden
University of Kansas

John M. Roll
Washington State University

_____

Weatherly and Dixon address how changes in the environment impact a person's propensity to gamble, as well as problems individuals can develop when this behavior pattern becomes excessive. While research has grown exponentially on gambling in the past decade, Weatherly and Dixon suggest that very little of it is has been informed by a behavior analytic perspective, and they argue that this perspective may have much to offer.

A primary concern in the field relates to providing a viable account for individual differences in susceptibility to gambling problems. Cost and benefit parameters of reinforcement schedules clearly impact decisions to gamble, ranging from placing a quarter in a slot machine to making a $500 bet between friends. However, when changes are made designed to increase gambling choices, everyone who gambles is exposed to them, but only some respond. Given these differences,

the authors suggest that differential sensitivities to gambling contingencies of reinforcement are not in the environment but in human language. As such, they suggest that behavioral approaches to human language and cognition may prove fruitful in understanding susceptibilities to gambling problems.

We agree with this proposition but will quibble with some of the finer points. First, they seem to suggest that pathological gamblers may be more susceptible to following verbal rules, or at least are more likely to attribute their gambling actions to these rules. Consider the examples of blaming the environment for gambling losses, but believing wins are related to personal skill. Dixon and Weatherly believe that studying verbal control of human gambling is fundamental because empirical laboratory evidence reveals that when verbal control is pitted against contingency control, it is the former that generally wins. There is no arguing with these data, but we urge caution in their interpretation. We believe it likely that many of these findings are compliance effects; the subject follows instructions even if it means that total income declines. The infamous Milgram experiments demonstrate the lengths to which humans will go to comply with instructions of an experi-

_____

Address Correspondence to:
Nancy M. Petry
Department of Psychiatry
University of Connecticut Health Center
263Farmington Avenue
Farmington, CT 06030-3944, USA.
E-Mail: npetry@uchc.edu

menter. If these findings are fully generalizable, then treating pathological gambling could be greatly simplified; therapists would simply instruct them to stop.

While we agree that verbal processes govern a good deal of human behavior, our final comment is that we think they have underestimated how much can be learned about individual susceptibilities to gambling by studying nonhuman behavior. For example, accumulating evidence suggest that genetic factors may play a role in the degree to which an individual discounts delayed outcomes and that individual differences in delay discounting may be predictive of drug taking. At the same time, some evidence suggests that programmed experiences can change animals' rates of delay discounting. Further, as noted by Dixon and Weatherly, quantitative differences in the rate at which delayed outcomes are discounted are predictive of susceptibilities to random-ratio schedules and other unpredictable delays to rewards that are endemic to games of chance. These findings and the theories stemming from them have relied upon the study of contingency changes in nonverbal animal subjects.

Only data can address the complex question of who and why some individuals become pathological gamblers and others do not. Perspectives and inquires across multiple domains may eventually help prevent excessive and harmful gambling, as well as improve treatment for those who go on to develop significant problems.

Action Editor: Simon Dymond