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COMMENTARY

SIMPLE SOLUTIONS TO COMPLEX PHENOMENA: NOT IN THE CARDS

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Fantino and Stolarz-Fantino suggest that to understand gambling behavior, in particular pathological gambling, a better understanding of human basic decision making processes is paramount. To accomplish this task they suggest that behavior analysts are in a unique position to elucidate the important and critical variables underlying adult gambling behavior and problem gambling. To support their claim, they point to some of the behavioural literature which have been used to explain the acquisition, maintenance and resistance to cessation of other addictive behaviors. The basic premise underlying their arguments is that individuals make educated, rational choices. Thus, if we can better understand these processes and modify the individual's decision making processes then individuals might continue to indulge in gambling in a relatively safe manner, stopping when they have reached their predetermined time and financial limits. While this may make intuitive sense, and behavioural analysis can certainly help explain the acquisition of this behavior, decision making and more importantly good decision making is lost when individuals are deeply engrossed in the gambling activity itself.

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Where else can bright intelligent individuals, capable of making countless good decisions in their daily lives, succumb to multiple erroneous cognitions which ultimately results in ignoring predetermined limits and in some cases excessive gambling. I offer the following two simplistic examples. First, the Bellagio casino in Las Vegas cost 2 billion dollars to build yet everyone gambling in the casino believes they are smarter than the owner. Second, casino operators have long known that by providing visual cues to individuals they are more likely to perceive that they can cognitively predict the outcome. Take for example a roulette wheel which in almost every casino now exhibits the last 12 results of where the ball has landed. Individuals with good decision making principles will study the board and wager on where the ball will land next. If five red numbers appear, the individual knowing that the probability of red vs. black is 50% (excluding green) will likely wager on black. Unfortunately, the roulette ball does not have memory where it landed previously. This illusion of control reinforces the notion that individuals when gambling often endorse the fallacy of the law of independent of events such that each spin is independent from the other.

Clearly, behavioural analysts have little difficulty in explaining the acquisition and the maintenance of *some* specific forms of gambling (e.g., slot machine or electronic gambling machine gambling) as a result of intermittent contingencies. The real question that remains - why do people continue to gamble

in excess of their predetermined limits in spite of their repeated losses?

To help us better understand this complex behavior, Fantino and Stolarz-Fantino turn to an explanation of temporal discounting to help us understand why individuals make non-optimal choices during a gambling episode. In analyzing the arguments they too concur that while there is some empirical evidence to suggest that pathological gamblers and smokers exhibit steeper discounting functions than controls, the explanation for excessive gambling remains incomplete.

Given the discounting functions of individuals does not provide a strong basis for decision making when gambling, Fantino and Stolarz-Fantino try "getting inside the gamblers head". To do so, they conducted two rather simplistic studies to determine whether or not gambling-related thoughts serve as discriminative stimuli for wagering. Once again, the explanation remains incomplete.

Finally, the authors conclude that while discounting functions play a role in gambling this is a much more complex phenomena. While a number of theoretical models have been proposed to account for pathological gambling a purely behavioural explanation is indeed incomplete (see reviews by Abbott, Volberg, Bellringer, & Reith, 2004; Gupta & Derevensky, 2008). One further point is necessary in understanding pathological gambling. A traditional behavioural view suggests that money is the preeminent reason underlying gambling. There is considerable evidence to suggest that while all individuals want to win money, the pathological gambler will often engage in this behavior to modulate emotional negative affective states or seek to escape from stressors. Dissociation, so very important in understanding pathological gambling, is an important determinant to be considered. For the pathological gambler loses himself/herself in the game. Playing for as long as possible becomes the primary reason for gambling with money being used only to

continue gambling. Pathological gamblers report that all their problems (familial, work or school related, interpersonal, psychological or even physiological) disappear when gambling.

Is there a better explanation for understanding pathological gambling? Fantino and Stolarz-Fantino are quite correct in arguing that the behavioural paradigm offers a partial explanation. Others such as Blaszczynski and Nower (2002) have articulated a pathways model suggesting differential pathways toward problem gambling. Different subgroups of individuals may not only have a propensity to engage in different forms of gambling but may have different aetiologies and motivations. While our current thinking is that an integrative bio-psycho-social model provides a more comprehensive explanation (Sharpe, 2002; Derevensky, 2008), considerable more research is necessary before definitive conclusions can be made.

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