

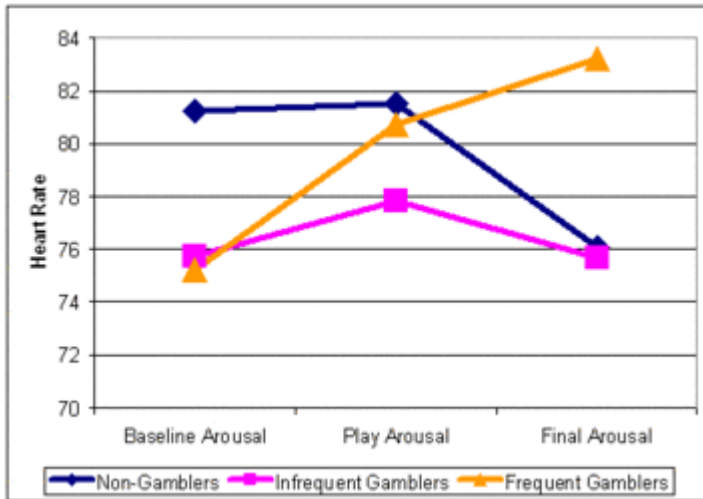
The WAGER Vol. 13(1): When Your Heart Beats for Gambling

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The excitement of gambling is often described as an increased arousal, where gamblers experience an almost euphoric state. This euphoria is believed to be an important factor in the reinforcement of gambling. Moodie & Finnigan (2005) investigated elevated arousal in frequent and infrequent fruit machine players, as well as non-gamblers. Each group consisted of 21 individuals (three females in each group). Frequent gamblers were identified as people who gambled more than three times a week. Infrequent gamblers in this sample gambled an average of two times a month and non-gamblers had no history of gambling. The study gave participants £6 with which to gamble and measured their heart rate at baseline, before and after each of 20 plays on a fruit machine located inside a real gambling arcade, and one minute after the gambling session ended.

As demonstrated in Figure 1, results of a one-way repeated-measures ANOVA showed an interaction between group and time on arousal. Though non-gamblers had the highest baseline heart rate, frequent gamblers showed a significantly higher increase in heart rate than both infrequent and non-gamblers. Unlike infrequent and non-gamblers, their heart rates continued to rise after the gambling session. Researchers also measured heart rate changes in response to wins, nudges, bonuses and special game features. These machine characteristics were all associated with elevated arousal, which was further exacerbated in frequent gamblers. Significant differences were found between non-gamblers and frequent gamblers for wins and nudges, and between all three groups for features.

Figure 1. Arousal among Frequent, Infrequent, and Non Gamblers in Reponse to a Gambling Task



One major limitation of the study was that the baseline heart rates of the non-gamblers were extremely high relative to both the frequent and infrequent gamblers. This might be due to the novelty of the gambling surroundings and the research task, and suggests that the higher increase in arousal found in frequent gamblers might potentially be an artifact since the non-gamblers were already aroused. More participants and a longer duration of the gambling session would benefit the study and allow for other observations such as adaptation over time. Nevertheless, it is an important finding that frequent gamblers show increased arousal during gambling, and that not only wins but also the interactive features of the game influence arousal.

What do you think? Comments should be addressed to Line Gebauer.

References

Moodie, C., & Finnigan, F. (2005). A comparison of the autonomic arousal of frequent, infrequent and non-gamblers while playing fruit machines. *Addiction*, 100(1), 51-59.