

The WAGER Vol. 9(43) - Beating the Odds: Will Knowledge of the Sport Help Win the Wager?

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There is a wealth of statistics and other information available to the general public regarding the performance of sports teams and their players; there are even professional handicappers who assess the odds of whether a certain team or athlete will win or lose based on statistics relating to injuries, playing conditions, current trends in team statistics, as well as knowledge of the bettors and their betting tendencies. For some wagering on the outcome of sports matches, these statistics and odds help determine their choice of bets because they believe that knowledge and understanding of this information will greatly enhance their ability to win. However, whether this information actually contributes to making more accurate bets and securing greater monetary winnings is uncertain, as the outcome rests at least partially, sometimes entirely, on the element of chance. One recent study by Cantinotti, Ladouceur, & Jacques (2004) tried to assess whether perceived skill in sports betting can positively influence the outcome and increases winnings, or whether this simply gives bettors the illusion of control.

Cantinotti et al. (2004) examined the bets made by frequent bettors on National Hockey League (NHL) matches in Quebec, Canada. The experiment was conducted between January and April 2002 during the regular NHL season. Participants were recruited through posters and advertisements placed in convenience stores and other locales in Québec where one can purchase *Mise-O-Jeu* (1) tickets; advertisements stated that experts in betting on hockey games using *Mise-O-Jeu* were wanted for research on gambling. The study excluded participants who bet on *Mise-O-Jeu* less than twice a month. Before coming in for the initial 40-minute meeting, participants were screened for excessive gambling using the French translation of the South Oaks Gambling Screen (Ladouceur, 1991); excessive gamblers were also excluded from participation. Thirty-five people responded to the advertisement and 30 were included in the study. The mean age of the participants was 28.6 years (SD = 9.4 years); all participants were male.

Participants filled out a questionnaire about their hockey *Mise-O-Jeu* betting habits and beliefs, including a question on their perceived expertise in hockey betting, and described their rationale behind placing certain bets. For each question, perceived expertise was scored using a 10point Likert-type scale from 0 (not at all) to 100 (extremely). Participants also placed \$2 bets as they normally would on 18 wagering slips of three types (one type allowed three game selections, one type allowed four selections, and one had no restrictions). A randomly generated selection of bets on similarly organized wagering slips served as a control group for comparison. A series of three bets from one participant could not be included; thus only 537 wagers were included in analyses (179 three-game wagers, 179 four-game wagers, and 179 three-six game wagers).

Table 1: Average Amount of Money (in Canadian Dollars) Returned on Bets Wagered by Experts and by Random Selection and Accuracy of Bets (in %) (adapted from Cantinotti et al., 2004)

Kind of bet	Expert Selection			Random Selection		
	<i>M</i> (\$)	<i>SD</i>	<i>n</i>	<i>M</i> (\$)	<i>SD</i>	<i>n</i>
From 3 games	1.69	1.87	30	0.69	1.44	30
From 4 games	1.25	1.89	30	3.67	15.41 ^a	30
From 3-6 games	0.64	1.69	30	0.36	1.25	30
Average	1.19	1.02	30	1.57	5.12	30
Accuracy	47.3%	0.12	30	33.3%	.01	30

a = Outlier due to a big win.

Independent t-tests were conducted to compare participants' betting accuracy and amount won to the groups of randomly selected wagers. The results show that participants were slightly more accurate than random selections. On average, 47.3% of predictions made by participants were correct, compared with, on average 33.3% of the randomly-generated sets of wagers - a significant difference ($t'(41) = 5.98, p < .01$). However, when randomly generating wagers for this study, all three conditions (home team wins, visiting team wins, and tie) were weighed equally, despite the fact that ties happen much less frequently: during the NHL 2003-04 season only 13.8% of the 1230 regular season games ended in a tie. Thus, the control group might not be representative of a naturally occurring random sample: if no tie games are chosen for the randomly selected wagers, the selection would still be correct 43% of the time, and if unequal probabilities are used to make random selections (i.e., taking into account the rare occurrence of ties), the selection would be correct about 45% of the time. These percentages are not markedly different from the accuracy of the participants. Further, the average return for every \$2 bet placed by participants

did not differ significantly from the return for random selection sets, though the interpretation of this result is limited by the large outlier in the random set condition.

Though the design of the random sample used as a control for this study makes it difficult to draw confident conclusions about the performances and winnings of 'expert' hockey bettors as compared to chance, the study does reveal interesting findings relating to how these bettors place their bets. The study found that when placing bets, participants believed their knowledge increased their chances of winning, rating its contribution at 62.5 on the 0100 point scale described earlier. Participants also acknowledged that their knowledge of odds shape their decision to bet on a certain team, rating its contribution at 69.17. Additionally, all believed there was a relationship between the odds and the probability that a team would win or lose. Further research might follow up on the issues of perceived control, and the impact this has on bettors' choice of bets and decision to keep betting despite serious losses. Research might also focus more on the role of odds in the betting process, both from the perspective of the bettors and the house. Even when participants have extra knowledge that improves their chances of winning, the house, in this case the *Mise-O-Jeu* oddsmakers, sets the odds that determine payoffs. An improved ability to pick correctly might not be enough of an improvement to overcome the house cut.

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Notes

1 The legal sports betting game in Québec; the literal translation is 'Bet-on-game.' When placing a bet, participants bet on three to six games at a time, depending on the teams playing during a particular week, and bet on whether the home team or the visiting team will win, or whether the match will end in a tie. Winnings are calculated by multiplying the amount wagered by the products of the odds quoted for the results of the individual matches. Only if all predictions on the *Mise-O-Jeu* tickets are correct do participants receive winnings.

References

Cantinotti, M., Ladouceur, R., & Jacques, C. (2004). Sports Betting: Can Gamblers Beat Randomness? *Psychology of Addictive Behaviors*, 18(2), 143-147.

Ladouceur, R. (1991). Prevalence estimates of pathological gambling in Quebec, Canada. *Canadian Journal of Psychiatry*, 36, 732-734.