

## In poker, psychologist places bets on skill

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Is it luck of the draw in poker? No, says Michael DeDonno, a doctoral student from Case Western Reserve University. Based on findings from two psychology studies, he suggests putting your bets on skills over luck when playing the card game.

DeDonno's findings from two poker-related studies with college students have implications for the gaming industry, and possibly even legal cases that challenge the theory of luck over skills. According to DeDonno, the person who takes home the winnings is likely to pay higher taxes when money is considered earned by luck.

His article, "Poker is a Skill," written with Douglas Detterman, Case Western Reserve psychologist, caught the attention of the journal, *Gaming Law Review*, which has been examining this luck-skill debate and recently published psychologists' findings.

"This article provides empirical evidence that it is skill and not luck," concluded DeDonno from his two studies.

In the first study, DeDonno had 41 college students play eight games, totaling 200 hands, of Turbo Texas Hold'em, a computerized simulation of 10-player Hold'em poker. The game consists of being dealt two cards in the first round. The player must decide whether to play or quit based on the hand. If the person decides to play, then three cards are dealt for the community pot. Again, the player has to decide whether to play or stop. The player must also consider the betting patterns of the other players in making a decision in moving to the next round. If continuing,



then the player sees another card and has to decide again to bet or lay down the cards.

This is repeated until there are five cards on the table.

Overall most of the students had little experience playing poker, said DeDonno.

Half of the students in the first group were given charts that ranked the two-card combinations from best to the worst and also learned that professional poker players typically play about 15 percent of the hands dealt them. The other group was given background on the history of poker with no strategies.

He found that students given some strategies to make decisions did better than those without the strategies.

When starting the study, almost two-thirds of the students (64 percent) felt that winning at poker was 50 percent luck. "If it had been pure luck in winning, then the strategies would not have made a difference for the two groups," said DeDonno.

To statistically verify the results from the first study, he conducted a second study, but had students play 720 hands. Again the group was divided into those provided with strategies and those with just a history of playing poker. While all students improved their playing with practice over the large number of hands, the group given strategies continued to do better than those without the added information.

He also found that students reduced the average number of hands played at the beginning (27) to 15 hands after given strategies, which improved their games and validated that "fewer hands does result in improved performance."



DeDonno's research evolved from his interest in playing poker. He wanted to determine if there was a correlation between intelligence and the ability to play the game. But the focus shifted to the luck-skill issue.

According to DeDonno, using poker strategies has some real life applications in such areas as investments and buying a home where partial information is available. He also discovered that the poker simulation has applications in psychological testing for decision making and risk taking.

But in DeDonno's final analysis, skill wins out in playing poker.

Source: Case Western Reserve University

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