

# One Step Ahead

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## Sophisticated Gamblers Use Legal Techniques to Gain Small Advantages at Casino Games

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"Let me show you something," Steve Forte says. "Go ahead, shuffle the cards."

He's sitting on the opposite side of a marble coffee table, in a hotel room 30 stories above the Strip in Las Vegas. He watches as the plastic-wrap seal is broken on a fresh pack of Bee playing cards, the brand used at dozens of casinos around the world.

"Here's what you do," Forte says. "Give them a good riffle, then cut. Then riffle again. Then cut. Then a final riffle and cut."

As directed, the cards are mixed. "Great. You've basically executed the identical shuffle used in some of the biggest casinos in

Las Vegas, the ones that take the largest bets in the world. You would think they'd go to great lengths to thoroughly mix their cards, to achieve true randomness, right?"

After a nod of agreement, Forte continues. "Deal me a few hands of 21," Forte says, pointing to the coffee table. "I'll bet an imaginary \$25 a hand. Deal yourself a hand, too. And don't let me see your hole card. You're the House."

Dealing four hands, Forte "loses" three out of four hands to the House's 19. "Good. This worked out really well," he says, smiling. "It's not always this easy."

"It just so happens that the next card off the deck, if I am not mistaken, is going to be the ace of spades. Then, six cards later, we're going to see the ace of hearts. So I'll give you some decent play on those spots, like \$500 a hand."

The cards are dealt. Forte's aces appear exactly as predicted. "Getting an ace as your first card in 21 gives you 50 percent advantage over the House," he explains. "It doesn't get much stronger than that."

Forte hasn't touched the cards. He allowed me to shuffle and cut the deck, and I'm certain the cards are not marked. It's like being a first-time visitor to a magic show. The only viable question is: "How did you do that?"

"Did you look at your hole card? Don't bother," he says, smiling. "It's the seven of hearts."

Formerly one of the world's most successful gamblers, Forte is intimately familiar with every advantage play to hit the casinos in the past 10 years. He's widely credited with conceiving many of them.

Forte, 38, is the president of International Gaming Specialists, a consulting firm that works with casinos worldwide on "game protection" issues, teaching them how to defend their tables from cheaters, scam artists and, surprisingly, themselves. Because of inadequate procedures, exploitable equipment or lax supervision, many casinos leave themselves exposed to what are known in the industry as "advantage players," players who use all available information and any legitimate strategy to gain an edge. These players annually beat the casinos out of millions.

"In the last decade, advantage players have had more effect on the gambling industry than cheaters ever had," Forte says. "Casinos regularly overhaul their game procedures because advantage players discover profitable weaknesses." The emergence of card counters (*Cigar Aficionado*, Spring 1994), for example, forced casinos to deal only two-thirds or three-quarters of a deck, instead of the 25/26 they formerly offered. But the vast majority of people who go to casinos have no idea that these powerful advantage techniques exist. The average "Square John" (sucker gambler) and the skilled advantage player look as if they're playing the same game. The only difference is that the advantage player wins.

Some of the advantage plays Forte employed in his former career were known to only a few hundred people in the world; others were known by only a few dozen. Now Forte is willing to share some of these powerful techniques, most of which have never before been revealed in the mainstream press.

He warns that advantage plays are not merely "tricks"--infallible gimmicks that will turn losers into winners. These methods take hours of practice, require significant mental agility and often prove too difficult for the casual gambler. Applied incorrectly, some advantage techniques will cost players more money than if they had simply relied on luck.

Applied correctly, however, they can destroy the casino's edge.

## **BLACKJACK AND BACCARAT**

The cards are shuffled again; several hands of blackjack are dealt. With seemingly extrasensory precision, Forte correctly predicts where the aces will fall, which suit will appear first and the value of my hole card.

"It's called shuffle-tracking," he says.

Initially mentioned around the turn of the century in an obscure magic book by Charles Jordan and C. O. Williams, shuffle-tracking, or sequence-tracking, is an advantage technique that Forte first employed in the mid-1980s. To create true randomness, a deck of 52 cards needs to be shuffled at least seven times. But the more casinos shuffle, the more money they "lose" because their profits are related to the number of hands they get out per hour. (The more hands they deal to sucker gamblers, the more money they win.) Virtually all the casinos in the country shuffle their deck only an average of three times. Sequence-tracking exploits this weakness.

When shuffled purely, cards will "move" to an easily predicted spot in the deck. If, for example, the ace of spades immediately follows the three of diamonds in the deck, after one riffle (or

shuffle) the ace will be the second card away from the three; another riffle will leave it four cards down and a third will leave it eight cards from its original position. (Turn two touching cards face up, shuffle the deck and see for yourself.) By memorizing three card sequences--usually two "key cards" preceding or surrounding the "target card" (an ace)--the accomplished sequence tracker can collect enough data to follow the progress of desired cards through the casino's not-at-all-random mixing procedure.

At my request, Forte demonstrates the practicality of continual tracking: as he correctly predicts where the aces will fall on the first deal, he memorizes sequences to be applied on the next deal. Sure enough, five consecutive deals provide him with a steady stream of aces on his imaginary big-money bets. I ask Forte if sequence-tracking works in multideck games, including baccarat.

"Absolutely," he says.

In fact, the "lace" shuffle some casinos use in their high-limit baccarat pits--where the dealer often exposes five- and six-card clumps to the player nearest him--creates memorizable "slugs" (distinct sequences) that make the game particularly vulnerable to advantage players. The current issue of *Blackjack Forum*, a quarterly aimed at sophisticated players, provides more details about shuffle-tracking, including instructions on how to "map" a schematic of all known casino shuffles.

"Before trying sequence-tracking, you need to do some research," Forte advises. "Dealer selection is crucial. You want to find a dealer who breaks the cards evenly and shuffles correctly, just like they're taught in dealer school. Female dealers, especially ones with small, delicate hands are often the best targets."

While staking out a casino for trackable dealers, Forte also recommends looking for hole-card plays, when blackjack dealers inadvertently expose their hole cards. The advantage is obvious: when you know the dealer is "stiff" (holding 12-16) and prone to bust, you can waver from basic strategy and stand on bad hands you would otherwise hit. "You would be surprised how many dealers give up their hole cards," Forte says. "At one point, with some research, I had a journal of 300 Las Vegas dealers susceptible to hole-card plays. Walk around any casino in America and look carefully: the serious advantage player can still find them." (Strolling through one of the most famous casinos on the Vegas Strip, Forte finds three in 10 minutes.)

Be aware also of dealers with distinct "tells," the subconscious body language commonly associated with poker, the subtle mannerisms and gestures that frequently expose the value of a hand. Until the mid-'80s, nearly 100 percent of the "21" dealers in Nevada peeked at their hole card if they had an ace or a ten-value card and up. (They were looking for naturals, instant winners for the House.) Then Forte published a book entitled *Read the Dealer*, which taught advantage players how to discern the dealer's hole card through nonverbal signals. Thanks to Forte's powerful treatise--a book that helped teams of "tell" players win fortunes--only about 15 percent of the casinos in America currently peek. At the ones that still do, many dealers unwittingly employ a vocabulary of physical or verbal signs that the astute player can use to his advantage.

Although reading dealer tells is a rich and complex science that requires some practice, there are a couple of basic guidelines: a dealer who is rooting for the players to win will usually pull back from the table when he has a bad hand and lean into it when he is pat. And in a single- or double-deck game, when a dealer is pat, he'll usually keep his nondeck hand far from his body; when he has a stiff, the nondeck hand will wander inward, away from the players, as if to say, "you're fine, let me take the hit."

Another way to exploit dealer-furnished information is playing the "warps." For this advantage technique, Forte suggests looking for male dealers, particularly big, overpowering types who handle the cards aggressively. When this kind of dealer looks under his tens or aces to check for blackjacks, he is prone to put a readable warp into the cards. At a casino where the dealers peek under all aces *and* ten-value cards, it doesn't take long for the deck to become "set up": all the little cards get bent one way (convex) and all the premium cards get bent the opposite way (concave). Several years ago a player in a small Egyptian casino encountered an old deck so hopelessly buckled, it was like playing with the cards face up. With such a deck the big cards create discernible bows, distinct "breaths" between cards. Using this information, astute players can consistently cut themselves an ace or ten after the shuffle—a spectacular 20 percent advantage.

One caveat: when the dealer warps the deck it's an advantage play; when you "help," it's against the law. Resist the urge to assist.

"I'll tell you one more advantage technique," Forte says conspiratorially. "Playing with a marked deck."

"But that's cheating," he is told.

"Not if the person marking the deck is the card manufacturer," Forte says, grinning.

He has me pitch him several hands of 21. After several deals he asks for the deck. "Here," Forte says, dealing two piles of cards. "You take those, and I'll take these." Forte turns over his pile: he's got all the aces and faces. The other pile contains all little cards.

"We call that playing the turn."

The vast majority of decks, he explains, including the Bee variety we are experimenting with, are cut slightly off-center. At first glance, the backs all look the same, but when you carefully examine the edges, the small "triangles" around the sides vary dramatically in size. "As he receives his cards, the advantage player simply turns them to the desired alignment. Eventually, after a few deals, he's got the deck 'marked.' All the little cards have the little triangles on top; all the big ones have big triangles on top." Playing the turn provides hole-card information and top-of-the-deck values—and it's perfectly legal.

## CRAPS

Forte heads downstairs to one of the most famous casinos in the world.

BJ & BAC



"Unbeatable, right?" he is asked, walking past a craps table.

"Wrong," Forte says matter-of-factly. "There's a lot of controversy surrounding this game. Has a player cheated by controlling his shot? According to the law, it's impossible to dictate how to throw the dice," he says.

"You're saying advantage players can control the outcome of the dice roll?"

"Absolutely. Only a few people can do it, but, yes, there are several methods. Walking the die, where the dice wobbles around its axis, but never changes position; spin shots, where the shooter *slides* the dice down the felt; puck or wall shots, where the shooter kills the number off the disk they use to mark the point--rule out nothing."

Several weeks later, demonstrating for a group of students at the William F. Harrah Institute of Casino Entertainment, Forte blithely rolls double sixes three times in a row--a 43,000-to-1 proposition.

## **SLOTS AND VIDEO POKER**

We pass a bank of video poker machines. "Those," Forte says, pointing to a row of units, "cannot be beat. But *those*," he says, gesturing to a bank with a progressive jackpot meter, "definitely are beatable. Many knowledgeable gamblers play video poker for a living. You have to know which machines to play and the correct strategy for playing them. For instance, in most home poker games, if you were dealt ace-jack-seven-five-three, you would keep the ace, or maybe the ace-jack. Here, the correct play is to keep only the jack."

When he passes a bank of slot machines, a challenge is unavoidable: "Don't say there's an advantage technique for slots!"

"No, unfortunately, today's slot machines work on a microchip," he says. "You can't beat them. But up until the early '80s, when they still used electromechanical machines, you could definitely win at slots using what we called rhythming--timing the machine's so-called variator. They definitely did not produce true randomness. You might find these old machines, like Bally's wide-reel Fruit, in some foreign casinos, but not here," Forte says somewhat wistfully.

## **ROULETTE**

"But I'll show you one old game that's still vulnerable to advantage play," Forte says, stopping at a roulette wheel. "Albert Einstein once said you wouldn't win at roulette unless you were stealing chips." Forte shrugs. "I guess even geniuses make mistakes."

Forte instructs his visitor to watch where the ball "falls off" the track and into the dish of spinning numbers. It loses its momentum and dives down at the "10 o'clock" position. On the next spin it does it again. And again. And again. Thirteen times in a row. "There's no such thing as a perfect wheel," Forte says. "They're basically a piece of furniture. They take abuse, they get

dirty, they get worn down. They produce biased results." Using a technique called visual prediction, advantage players exploit the wheel's imperfections.

Outlined in *How to Beat Roulette*, a book by Laurence Scott, the visual-prediction method is built on an immutable law of physics: regardless of how fast the ball is spun by the croupier, it must necessarily *end* at the same speed. Advantage players beat the wheel from the "back" of the spin, not the front. They play the last four or five revolutions of the ball. After finding a wheel with a clear bias--Forte says there's probably at least one in every major casino in the United States--they clock the speed of the rotor (the spinning dish of numbers), looking for one that takes between two and three seconds per revolution. (This is surprisingly easy to time in your head, without a stopwatch.)

By correlating the speed of the rotor with the ball's predictable "drop point," the advantage player can gauge which number will be sitting directly under the ball when it dives into the dish. Even taking into account the volatility of the ball's bounce, when betting late enough in the spin, advantage players can essentially narrow the list of probable numbers from 38 to 19, obliterating the House's normal 5 percent edge.

In the course of Forte's explanation of visual prediction, the ball has fallen off the same spot on the wheel 25 out of 27 times. At a nearby high-limit blackjack table, he detects the dealer's hole card in four of the last five hands. And at the craps table behind us, they're looking for a new shooter.

Forte is ready for lunch. But, really, it would be more fun to watch him play a rack of chips.

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