# Harrington on Hold 'em: 

Expert Strategy for No-Limit Tournaments

Volume I: Strategic Play

## Dedication

## For my mother, Alice Harrington

Ladyfingers: You raised tens on lousy three-flush?
The Man: That's what it's all about, isn't it? Making the wrong move at the right time.

From The Cincinnati Kid (1965)

## About Dan Harrington

Dan Harrington began playing poker professionally in 1982. On the circuit he is known as "Action Dan," an ironic reference to his solid, but effective style. He has won several major nolimit hold 'em tournaments, including the European Poker Championships (1995), the \$2,500 No-Limit Hold'em event at the 1995 World Series of Poker, and the Four Queens No-Limit Hold 'em Championship (1996).
Dan began his serious games-playing with chess, where he quickly became a master and one of the strongest players in the New England area. In 1972 he won the Massachusetts Chess Championship, ahead of most of the top players in the area. In 1976 he started playing backgammon, a game which he also quickly mastered. He was soon one of the top money players in the Boston area, and in 1981 he won the World Cup of Backgammon in Washington D.C., ahead of a field that included most of the world's top players.

He first played in the $\$ 10,000$ No-Limit Hold 'em Championship Event of the World Series of Poker in 1987. He has played in the championship a total of thirteen times and reached the final table in four of those tournaments, an amazing record. Besides winning the World Championship in 1995, he finished sixth in 1987, third in 2003, and fourth in 2004. He is widely recognized as one of the greatest and most respected no-limit hold 'em players, as well as a feared opponent in limit hold 'em side games. He lives in Santa Monica where he is a partner in Anchor Loans, a real estate business.

## About Bill Robertie

Bill Robertie has spent his life playing and writing about chess, backgammon, and now poker. He began playing chess as a boy, inspired by Bobby Fischer's feats on the international chess scene. While attending Harvard as an undergraduate, he became a chess master and helped the Harvard chess team win a number of intercollegiate titles. After graduation he won a number of chess tournaments, including the United States Championship at speed chess in 1970. He also established a reputation at blindfold chess, giving exhibitions on as many as eight boards simultaneously.

In 1976 he switched from chess to backgammon, becoming one of the top players in the world. His major titles include the World Championship in Monte Carlo in 1983 and 1987, the Black \& White Championship in Boston in 1979, the Las Vegas tournaments in 1980 and 2001, the Bahamas Pro-Am in 1993, and the Istanbul World Open in 1994.
He has written several well-regarded backgammon books, the most noted of which are Advanced Backgammon (1991), a two-volume collection of 400 problems, and Modern Backgammon (2002), a new look at the underlying theory of the game. He has also written a set of three books for the beginning player: Backgammon for Winners (1994), Backgammon for Serious Players (1995), and 501 Essential Backgammon Problems (1997).

From 1991 to 1998 he edited the magazine Inside Backgammon with Kent Goulding. He owns a publishing company, the Gammon Press (www.thegammonpress.com), and lives in Arlington, Massachusetts with his wife Patrice.

## Introduction

Poker is a fascinating game with a long and colorful history. It originated early in the nineteenth century as a game called poque, centered in New Orleans and on the Mississippi riverboats. Poque used only 20 cards and permitted only one round of betting. Gradually, the game spread across the country, always evolving new forms as old variations became well-understood. Fivecard draw, five and seven-card stud, lowball, hi-low, and, more recently, Texas hold 'em and Omaha were a few of the variations that expanded the map of poker. As time passed, the game continued to grow in popularity, from home games, to private gambling dens, to public casinos, to tournaments, to online play, and finally to televised tournaments.
In the last couple of years poker has exploded in popularity with the advent of minicams that enable television viewers to watch major events and follow the hands as they are played. As a result, tournaments that were once dull as dishwater can now be followed on the screen with some real understanding of what the players are trying to do. A game once mysterious has become, improbably, the latest spectator sport.
Television tournaments have focused on one variation of poker in particular - no-limit Texas hold 'em. The no-limit variation has been used to determine poker's World Champion since the very first tournament back in 1970. Nowadays there are about as many no-limit hold 'em tournaments as all other kinds combined, and every major tournament has a high-stake no-limit event as its culminating contest. On television, you can watch no-limit hold 'em tournaments at least three days a week (not counting reruns). Online, there are thousands and thousands of nolimit hold 'em tournaments every day, ranging from single table events with a $\$ 1$ buy-in to multitable events with buy-ins of hundreds of dollars and prize funds of over $\$ 100,000$.

A gap, however, exists in the world of poker. In the bookstores, there are many, many poker books, all teaching you how to play - limit hold 'em. There are hardly any books on the new rage these days - no-limit hold 'em tournaments. This is understandable if you consider the history of hold 'em. For many years there were just a few high-stakes no-limit hold 'em tournaments every year. Almost all the hold 'em action was in casino card rooms, where they spread limit hold 'em games at varying limits. If you were a newcomer to the game, small-stakes limit hold 'em was where you started.
But now that's all changed, and many newcomers are starting with various kinds of small-stake no-limit hold 'em games and tournaments. So the need for a book dealing directly with this very exciting and very complex form of poker is pretty clear. Harrington on Hold 'em: Expert Strategy for No-Limit Tournaments, Volume I: Strategic Play is that book.

## Organization

No-limit hold 'em is such a big and complicated game that I couldn't squeeze all the information into just one book, so Harrington on Hold 'em is a two-volume set. In this first book, Volume I, I'll show you how to play in the beginning and middle stages of a no-limit hold 'em tournament.
Part One serves as an introduction to the game as a whole. I'll show you why no-limit hold 'em is considered the "Cadillac of Poker," and what you need to consider when you try to evaluate a hand. I'll also take you inside a very interesting and complex hand from the final table of the 2003 World Series of Poker. You might have seen this hand on television; I'll show you what the players were really thinking.
Part Two covers playing styles. If you watched some poker on television, you've heard players described as "conservative," "aggressive," "super-aggressive," and "willing to play any two cards!" In Part Two I'll show what these terms really mean and how to play in each style. Most important, I'll explain why you need to switch from style to style as the situation demands.

Part Three, "Reading the Table," explains how to observe the action and keep track of both physical tells and betting patterns. It also explains how to observe yourself, and why that's so important.

Part Four, "Pot Odds and Hand Analysis," explains all the math you'll need to know to play nolimit hold 'em. (There is some, but fortunately there isn't a lot.) The chapter covers pot odds, expressed and implied odds, and analyzing hands in relation to the odds being offered.

Part Five covers the whole topic of "Betting Before the Flop." I'll introduce a complete strategy for betting for value in pots that haven't been opened yet, and I'll also show you what hands you need to call or raise for value when the pot has been opened in front of you.
Part Six, "Betting After the Flop," shows you how to think about your hand when the flop arrives. I'll show you a number of sample hands and compare them to various flops, explaining which flops are good, which are bad, and which are deceptively dangerous.

Part Seven covers fourth and fifth street action, including getting extra money in the pot, playing against drawing hands, and betting (or not betting) on the end.

In Volume II I'll talk about the tough issues involved in negotiating the later stages of a tournament. There you'll find discussions of moves and bluffs, zones and inflection points, the stack ratio and what it means for your play, changing your style, playing short tables, and handling heads-up play. Master the material in these two books, and you'll know how to win a no-limit hold 'em tournament. The rest is up to you.

## The Hands

Much of the real value of these books lie in the sample hands, which are collected at the end of each chapter. You should treat these hands as small quizzes, and try to answer the questions before moving on to the explanations. It would be easy to read through the text and convince yourself that, of course, you would have made exactly that play at the table, but you'll find the explanations much more informative if you wrestle with the questions on your own first.

The hands have been compiled over the years from a variety of sources, including my own play, hands I've seen in major tournaments, satellites, and online events. In each hand I've laid out the table position and chip counts, as well as information about some of the players at the table, if known and pertinent to the hand. Study the hands, answer the questions, read what happens next, answer the next question, and in that way work yourself through the hand. Some of the hands hinge on the single crucial decision of whether or not to enter the pot. Others involve a series of difficult moves as the hand evolves. Take the hands seriously, study them carefully, and you'll be well rewarded.

Poker on television needs to appeal to a wide audience of mostly casual players. As a result, the hands selected for inclusion tend to be dramatic all-in showdowns and major clashes. I don't have any quarrel with that; if I were a television producer I'd probably do exactly the same thing. But that's not real poker. Tournaments are won and lost in the trenches, where average-plus hands butt heads with average-minus hands. That's the workaday world of no-limit hold 'em, and most of the hands you'll find in this book are of that sort. My goal is to teach you how to think like a poker player. Anyone can win a pot when he flops a monster. It's how you play when you don't flop one that will decide whether you're a winner or a loser.

With the help of this book, I hope you become one of those winners.

This is not a beginner's book. I'm assuming that the reader already knows how to play no-limit hold 'em, either from actual play, online play, or just watching on television. However, this is not a complicated book either. I've tried to present the game the way I Play - with simple,
common-sense rules and a minimum of mathematical calculation. A little math facility is a good thing, and there are some simple percentages that you'd do well to commit to memory. But you don't need to be a math whiz to play good poker. Keeping your head at the table and thinking clearly is far more important.

In many cases good arguments can be advanced for an alternate play to the one I recommend in this book. No-limit hold 'em is not an exact science. My recommendations are always reasonable but under certain conditions a different play could be slightly or even clearly better. Obviously, Bill Robertie and I can't enumerate every possible change in condition that would make this so without having a 2,000 page book. But with experience you should be able to recognize most of them when they come up.

## Brief Glossary

If you've watched some television tournaments, you've probably picked up most of the terminology you need to read this book. But in case you've been out of touch the last couple of years, here's an explanation of some key terms, and it's also how I talk poker.
All-in: A bet or raise of all the chips you have in front of you.
Antes: Money placed in the pot by all players at the beginning of a hand. In a typical tournament, players don't ante up until five or six betting rounds have passed.
Big blind: A forced bet made by the player to the left of the small blind, to generate even more action.

Big stack: The player with the most chips at the table. If he uses his chips to push the other players around, he may be known as the table captain or table bully.
Blinded away: If the player with the short stack doesn't play many pots, he may eventually lose all his chips when it comes his turn to play the blinds.

Button: The player to the right of the small blind, who acts last on each betting round after the flop. The button is marked by a white disk which moves around the table counter-clockwise.
Covered bet: Your all-in is covered if your opponent has more chips than you. In that case, you will be eliminated if you lose the hand, but he will not.

Cut-off seat: The player to the right of the button.
Domination: When two hands share a common hole card, the player with the lower other card is said to be dominated. When two players hold ace-king and ace-queen, the player with the queen is dominated.
Flop: Three cards turned face up simultaneously in the center of the table. These cards are common to all hands. The flop is followed by a betting round
Fifth street (also known as the "river"): The fifth and last card turned up in the center of the table, also common to all hands. Fifth street is followed by a final betting round.
Fourth street (also known as the "turn"): The fourth card turned faced up in the center of the table, also common to all hands. Fourth street is followed by a betting round.

Hole cards: The two down cards dealt to each player at the beginning of the hand. No other player can see these cards.

Initial pot: The sum of the blinds and antes (if any) before the betting starts.
Nuts: A player with the best possible hand has the nuts. Out: A card which will give you a
winning hand if it arrives. Short stack: The player with the fewest chips at the table.
Side pot: When several players go all-in, a side pot will include those chips than cannot be covered by the smallest stack. In a few cases, there may be multiple side pots.

Small blind: A forced bet made by the player to the left of the dealer to initiate action.
Stack: The pile of chips in front of each player.
Stack ratio: The ratio of the number of chips in your stack divided by the initial pot. This number determines how aggressively you want to play.

Finally, I want to thank David Sklansky and Mason Malmuth for their comments throughout this manuscript; Dr. Alan Schoonmaker for his help with the English, and Ed Miller for his help in creating the index.

Special thanks goes to Patrick Nguyen of the Two Plus Two forums at www.twoplustwo.com for his front cover design. In addition, I want to thank Gary Alstatt of Creel Printing for his back cover design and art work throughout this book, and Christy Creel, Brandon Smeltzer, and Tom Lesher, all of Creel Printing, for their help in putting this project together.

## Dan Harrington

Bill Robertie
October, 2004

## Part One The Game of No-Limit Hold 'em

## Introduction

Like all variations of poker, no-limit hold 'em looks like a card game. But it's not, really.
No-limit hold 'em is actually a game of wagering based on imperfect information that uses cards to construct the situations for wagering. Players make bets and call bets based on their estimate that their hand (which they see) will, in the end, be better than their opponent's hand (which they can't see). To make an informed estimate, they have to take four factors into account:

1. The likelihood that their hand will improve as more cards are dealt, which is pretty much a straight mathematical exercise.
2. An estimate of the hand their opponent may hold, which is an exercise in inductive reasoning, based on hands he has held in the past, his general style of play, and the bets he has made thus far.
3. The likelihood their opponent's hand will improve, another mathematical exercise, but complicated by the fact that their opponent's hand is not known for sure.
4. The money odds being offered by the pot.

When a good no-limit hold 'em player plays a hand, he looks at his cards, looks at his opponents, considers the betting, and makes an educated guess whether to check, bet or call, raise or fold. In many hold 'em hands, one factor becomes so important that the other factors don't require much thought. For example:

1. A player holds a hand so strong that he doesn't really care what his opponents have.
2. A player holds a hand so weak that he thinks he's sure to lose a showdown.
3. The pot odds are so large that he can play the hand with almost any holding.

Don't make the mistake, however, of assuming that even these hands are easy to play. In no-limit hold 'em, there are no trivial hands. Since you don't have to show your cards down to win, under the right circumstances any hand can be a winner.

## The Cadillac of Poker

If you've watched televised poker at all, you've no doubt heard no-limit hold 'em described as the "Cadillac of Poker." ${ }^{1}$ It's a true statement, but few players understand why the game deserves that reputation.

Professionals rank the different forms of poker by how much they consider their entry fees in a tournament to be worth. Top seven-card stud players, for instance, think that the true value of an entry into a seven-stud tournament is about twice the entry fee. (Paying $\$ 1,000$ to enter a sevenstud tournament should yield, over a long run of tournaments, about $\$ 2,000$ in prizes.) An entry to a razz or Omaha tournament yields about the same value. But the best no-limit hold 'em players think that a $\$ 1,000$ entry fee is worth $\$ 4,000$ to $\$ 5,000$, and in huge events like the World Series of Poker, with many beginners in the field, perhaps as much as $\$ 7,000$ to $\$ 8,000$.

[^0]What makes no-limit hold 'em poker so much more skillful for good players, and so profitable for the best players? Many think it has something to do with making big all-in bets, or orchestrating outrageous bluffs. But actually it hinges on two technical factors: the amount of information available to the players, and the ability to control the pot odds offered to your opponent. Let's look at each factor in turn.

## Information Availability

Poker is a game of incomplete information, but not all games of incomplete information are created equal. From game to game, there are degrees of information availability. How much information is hidden and how much is available greatly affects the interest and playability of a game.

In classic five-card draw poker, all your opponent's cards are hidden. Aside from the betting patterns, the only source of information you have is the number of cards your opponent chooses to discard. With so little information to weigh, your strategic options are limited, and the game plays very mechanically. Nowadays, classic five-card draw is only played in home games.

At the other extreme of poker variations lies another classic game, five-card stud. Here players have only one hidden hole card, while all other cards are dealt face-up. Once again basic strategy becomes mechanically simple ("Don't play unless you can beat the board."), this time because too much information about each hand is available.

The best poker variations strike the right balance between hidden and exposed cards. Texas hold 'em lies right in the center of that sweet spot. Two hidden cards allow plenty of room for deceptive maneuvering, while five exposed cards allow a good player to make plenty of deductions about the opposing hands.

## Controlling Pot Odds

The goal of all forms of poker is to avoid making mistakes while inducing as many mistakes as possible from your opponents. Every time you make a mistake, you lose, and your opponents gain. Every time you induce a mistake from your opponents you gain, and they lose.
These gains and losses don't occur immediately. You may make a bad mistake and still win a hand and pull more chips into your stack. But in the very long run, your results at the poker table will approach the sum of all your opponents' mistakes, less the sum of your mistakes. This principle governs all games which are mixtures of skill and chance.

There are a variety of mistakes one can make in poker, but one of the most serious is to make a bet or call which is not correct given the pot odds available to you, either because you haven't made the right deductions about your opponent's cards, or because you have a generally correct idea about his cards, but you've ignored the pot odds entirely.
The no-limit form of hold 'em poker is very advantageous to good players for a simple reason. By making superior deductions about the hands their opponents hold, they can make bets that offer their opponents more chances to make errors. Whenever their opponent misreads the situation and makes such an error, the good player gains, and his opponent loses.

Example No. 1. Suppose you are playing limit hold 'em (bets are limited to a specified amount each round) and you believe, from the previous betting, that your opponent has four cards to a spade flush with just one card to come. The flush, if he hits it, will beat whatever hand you have, but he will lose otherwise. The pot now contains $\$ 100$, and the betting limit is $\$ 10$, and you bet that amount.

It's now your opponent's turn. He has seen six cards so far, the two in his hand and the four
common cards in the center. If he's drawing to a flush, four of these cards are spades. Of the remaining 46 cards in the deck that he hasn't seen, your opponent needs one of the nine remaining spades. The other 37 cards will lose for him. The odds against hitting his flush are 37-to- 9 against, or just a little over 4-to-1. The pot now contains $\$ 110$ and it costs him $\$ 10$ to call, so he's being offered 11-to-l pot odds. Since the pot odds are bigger than his odds of making the winning hand, it's correct for him to call. Your bet was perfectly correct as well since you're a 4-to-l favorite to win the hand. But with the betting limit of $\$ 10$, there was no way for you to prevent your opponent from drawing at the winning hand.
Now suppose we have the exact same hands and pot, but the game is no-limit hold 'em. You can bet any amount you want, not just $\$ 10$. This time you bet $\$ 100$. Your opponent can still call the bet, but now there is $\$ 200$ in the pot and he has to call for $\$ 100$. The pot is only offering him 2-to-1 odds, but his chances of hitting his flush are still 4 -to-l. Since the pot odds are smaller than the chance of making his hand, he's supposed to fold. Because you had an unlimited choice in what to bet, you were able to pick an amount that enabled your opponent to blunder if he wanted to contest the pot. By controlling the pot odds, you allow your opponents to make errors that they couldn't make in a limit hold 'em game. Those errors end up as money in your pocket.

## What is a Hand?

If you go to a poker tournament, you'll notice that the top players are always sought out for their advice. A typical hand discussion between a beginner and a top player might go something like this:
Beginner: Can I ask you a question about a hand?
Pro: Sure, go ahead.
Beginner: OK, thanks. So I'm holding king-queen suited, see, and there's one call in front of me... Pro: What position are you in?

Beginner: Oh I don't know - I guess maybe I was fifth to act ...
Pro: What position was the first caller in?
Beginner: I guess he was second ... no wait, he was right under the gun ... yeah, that's right... no, maybe he was second... well, it was something like that.
Pro: How many chips did you have?
Beginner: Gee, a lot, maybe \$4,000, \$5,000 - right in there.
Pro: And what were the blinds?
Beginner: Oh, not that much, maybe \$50/\$100, \$100/\$200, something like that. But anyway, I called, see, and then this guy behind me raised! And everyone else folded around to me, and I didn't know what to do...

Pro: How many chips did he have?
Beginner: You mean the guy who raised me? I don't know, who can remember all this stuff? Hey, I want to talk about the hand!

To the beginner, his hand was the cards he held, and what the players immediately before and after him did. To the pro, a "hand" was a lot more than that. It's an entire situation, full of different elements, which has to be seen as a whole before good plays can be made.


[^0]:    ${ }^{1}$ The term "Cadillac of Poker" was first used in Doyle Brunson's book Super/System.

