

# Foreword

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## A New Game

In 2005 I published the book *How Good is Your Limit Hold'em?* This contained 24 hands of limit hold'em structured in a quiz format and all these hands were analysed in some depth. The examples were aimed at (what was at the time) middle-limit play and the book was based loosely on my experiences of trying to become a winning player at these levels.

The book was generally well received and from the reviews and feedback it appeared that the feature of this book that appeared to be most appreciated was that it tried to give a good understanding of how a strong poker player thinks at the table. This is in contrast to many other poker books which instead focus on more theoretical areas such as starting hand charts and specific plays. Therefore a while back – and somewhat embarrassingly this is actually now a few years ago – I had the idea to produce a new book which focused purely on this aspect of the game. The idea was to identify key areas of poker play and explain how to think through them correctly.

Poker theory has advanced dramatically in the last few years and it seemed clear that a new book needed to reflect this development. Key features such as hand ranges, pot equity and tournament equity have become much better understood and new tools for understanding play such as ICM (the independent chip model) have been developed.

## A Battle Manual

The structure and scope of this book is very different from that of my previous effort. That book focused purely on FL (Fixed Limit) play while this book examines play in different poker variants including FL, NL (No Limit), Omaha, tournament and sng (sitngo) play. The common feature of the two books is that both of them (hopefully) give an insight into how a strong player thinks at the table. *However, simply sitting down at the poker table and “playing a good game” is no longer enough to be successful.* In addition to playing well it is now crucial to study effectively, to prepare well and to be ruthlessly honest in analysing your own play. “Playing a good game” must incorporate these factors.

This book will address these issues. It will identify how successful players go about analysing their own game and that of their regular – and sometimes not so regular – opponents. There will be material on using statistics, performing calculations, analysing your own play, studying and planning. It will also explain how to find and use information. In short – it will be a battle manual for the serious poker player.

## Accompanying CD

Theoretical explanations are all well and good but it is also instructive to see how these ideas are incorporated into live play. I have therefore produced an accompanying CD with four videos which show how many of the ideas discussed in this book are put into practice in the heat of battle.

## Succeeding at Poker

I want to emphasise: reading this book will *not* instantly turn you into a brilliant player. However, it will show you what good players do and explain how you can emulate their approach to poker. The rest is up to you. Good luck (unless you’re playing me).

Byron Jacobs,  
Hove, E. Sussex,  
February 2011

# Introduction

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## Who is this Book for?

My aim with this book is to reach as wide an audience as possible. Of course if you already play poker to any kind of serious degree then I am hoping that you will find much of interest here. However, many people, when they discover that I play poker on a semi-professional basis, are intrigued and want to know more. Doubtless a number of them are being polite, but I often discern a serious curiosity about what skills are required to be a successful poker player. I am hoping that this book will answer such questions and thus also attract those with just a passing interest in the game who have occasionally wondered how the online game works and what it takes to succeed.

I am therefore aiming this book high and wide, hoping to attract casual poker enthusiasts as well as serious players who have already logged hundreds of hours on the virtual felt. As this is the case, a few of the explanations of concepts in the book may seem a little basic to the more experienced readers. However, this is absolutely not a beginners' book and there will also be a great deal of deep analysis of some quite difficult ideas. I am hoping that more experienced readers will tolerate the basic stuff and less

experienced readers, whilst perhaps not entirely understanding the more advanced material, will at least get a flavour of what poker at a high level is all about.

## **The Theme of this Book**

*Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.*

Yes, I know the above quote is by now rather over-used, but nevertheless I thought it quite apt. Lao Tzu's use of the concept of catching fish as a metaphor is clearly a remarkably prescient anticipation of the development of online poker...

Many, many poker books will promise you a route to instant success. Typical back cover sales pitches scream at you: "Buy this book and become a winner!", "If you want to crush NL games, you need this book!", "How I turned \$10 into a billion dollars overnight!!!" I make no such claims. I cannot (and I don't believe anyone else can either) simply offer up a specific game plan – for any variant of poker – which can turn you into an instant winner. Poker is not really any different from anything else: if you adopt the right approach and work hard then – ultimately – you will be successful; if you don't, you won't.

The overall concept behind this book is not that I will identify what is absolutely the correct way to play in particular situations (this is something of a minefield at the best of times because poker is such a situational game). What I will do instead is examine a large number of different poker scenarios and explain how a strong player both thinks at the table and then analyses afterwards away from the table. By adopting this approach my intention is to give the reader the tools to be able to improve their own game rather than simplify identifying "correct" plays with the implication that if the reader can understand and adopt these in their own game they will naturally improve.

Most of the poker discussed in this book comes from cash FL play as this is my speciality and the game I have focused on for most of my poker career. However, there will also be numerous examples of play from other poker variants such as Omaha, NL play and – in particular – tournament and sitngo play. You will also note that nearly all the examples arise in situations either from heads up play or concern hands which very quickly become heads up. This is quite deliberate as the vast majority of poker hands these days are played heads up and multi-way pots, whilst not exactly unusual, are not seen nearly as much. Furthermore, play in multi-way pots tends to be more straightforward – you either have what you consider to be the best hand or you have decent odds to draw. Plays and techniques which are crucial in heads up battles such as bluffing, semi-bluffing, floating, assessing ranges, inducing bluffs, balancing etc., are much less relevant in multi-way pots as they most often require you to show down the best hand to win and thus tend to be more straightforward.

## **Tournament Play**

It is my opinion that tournaments and sitngos are a fantastic training ground for developing players as knowing some basic strategies means that, even if you are more or less a complete beginner, you can play these events at the low limits and already have an edge in the games. Some readers might find this surprising but there will be a section in this book where I explain at some length precisely how this can be achieved.

The chapter on tournament play contains some material that may well appear basic to experienced tournament players. However, as I explained earlier, I am hoping this book will attract a wide-ranging readership that includes people with just a passing interest in poker. They might enjoy poker as a hobby and like to be able to play two or three tournaments a week but not have time to study tournament theory in any great detail. Following the advice in the tournament section will enable such players to very quickly find themselves in a +EV (positive expected value) situation when they enter tournaments with large fields and modest buy-ins, say up

to around \$30. Many excellent books have been written on all aspects of tournament play and I do not propose to compete with them. Much of their emphasis is on complex strategies which are often more relevant to higher buy-in events. What I will do is offer a game plan which will enable players to compete successfully in tournaments with moderate buy-ins, even with little experience.

Although I specialise in FL play I am well aware that other forms of poker – especially NL play – are nowadays more popular. However, when writing up hands from FL play I have tried to ensure that the ideas and concepts discussed are of a sufficiently general nature that players will be able to adapt them to their own game of preference if that does not happen to be FL. I strongly believe it is a good idea to, at the very least, have an interest in other poker variants as many poker concepts are surprisingly transferable. This is a theme which will crop up again in the course of this book.

## **The Material and Topics in this Book**

In this book I will cover a number of topics which I believe are crucial to success at poker. Obviously I have divided these up into what seems to me to be a useful chapter structure. However, knowledge and understanding of poker cannot be delivered in discrete, bite-sized chunks and in many cases the themes will overlap or intertwine. This is especially the case with calculations. There is a whole chapter on calculation but doing poker maths is important in other sections as well. The same applies to planning – again there is a whole chapter on this but you will notice that I discuss planning in many other places too.

Furthermore there are topics such as balancing (making your own play hard to read) and meta-gaming (considering the overall flow of the game and potential future actions) which are important but do not merit a chapter in themselves. Such topics crop up all over the place.

## **Poker Tools**

Throughout this book I refer to or make use of a number of poker tools including database packages, poker websites, poker software etc. I do not want to give the impression that these are the only tools that can help with your game. They happen to be the ones that I like and find easiest to use but they are not the only ones. There are literally hundreds of similar utilities available. If you use google and key in “poker hand range calculator”, “ICM poker” or “poker tournament equity” you will see what I mean. Many of these will perform more or less the same function but if you spend some time searching around you may well find utilities that you prefer or have slightly more functionality.

## **Doing the Maths**

Maths is an important part of poker. This has increasingly become the case over the last few years as the ideas behind hand ranges and equity have become better understood. If you and maths don't see eye to eye then that's unfortunate because in the modern game there isn't really a way to play poker successfully without looking at the maths behind a lot of situations. If you don't consider the maths then a lot of the time you'll just be guessing. Understanding the maths – or at the very least having a feel for it – enables you to ask precise questions about situations.

For example – on the turn you have a strong, but not overwhelming, hand. You bet and get raised. You know that this opponent may well have a better hand but you also know that it's possible that the bet represents a semi-bluff or even an outright bluff. A player who has little concept of maths may well assess this situation by thinking something like, “My hand is just too strong to fold here. There is no way I am being pushed off a holding this good – I'll have to call,” or “I don't think a bluff here is likely when I have shown I am strong – I'll have to fold.”

These assessments of the situation are little more than guesswork. A player who has an understanding of the underlying maths can formulate a more accurate picture of the situation and make a more useful statement such as, “If the villain has a weaker hand than me more than 25% of the time here, the +EV play is to call. If the villain has a weaker hand less than 25% of the time the +EV play is to fold.” This is much more precise. Now our hero can assess the opponent in terms of their general playing style, their stats or even meta-game considerations to arrive at an intelligent decision. Now our hero is playing poker rather than tossing dice.

Poker is a complicated game and when you try to look at the maths it can get scary. I have looked through poker material which featured equations of such mind-boggling complexity that I have seriously wondered if the Apollo moon landings relied on more straightforward mathematics. Therefore my aim in this book has been to present the mathematical side in as an accessible way as I can. Fortunately nowadays there are a number of utilities which we can draw on to simplify much of this work. I have also tried to show different ways in which poker maths problems can be approached.

One feature of much of the mathematical analysis has been an emphasis on the logic and assumptions taken. A lot of the calculating work is what might be termed “dirty”. It relies to some extent on guesswork and experience to formulate assumptions and deductions regarding future actions. When calculations are of the “dirty” variety (i.e. when it’s not feasible to use absolutely precise figures), the emphasis is frequently on ensuring that the underlying logic is good. Dodgy logic plus dirty calculation is unlikely to yield any useful information. However, when the logic underpinning the calculations is sound then useful results almost always ensue.

## **Analysing Hands**

Many of the examples given in this book are analysed in great depth. This is rather unusual for a poker book as the most common approach is to analyse numerous situations but not necessarily in great detail. Since

readers may be more used to material which is structured in this way, I will say a few words about my preferred approach.

I am of the opinion that thinking hard about specific poker problems is one of the very best ways to improve your play. In this way it is different from some other games such as chess or bridge. In chess, for example, hundreds of different things can happen and to be a competent player you need to know something (but maybe not a huge amount) about very many different situations. The same applies in bridge. However, poker isn't really like that.

If you play chess or bridge for a few hours you might just play a few hands or games and they are all likely to be completely different. However, when we play a few hours of poker we play hundreds or maybe even thousands of hands and a huge percentage of them are more or less exactly the same. This is essentially due to the constraints imposed on the play by the tight betting structure. We bet a good hand and get raised; we have a good semi-bluffing hand; we don't have anything but maybe our opponent doesn't either; we have a marginal hand but we're not folding; we are very strong pre-flop but the flop isn't great. The same stuff – again and again.

However what makes poker fascinating is that although the same structures appear, the subtle differences in card combinations render each situation uniquely different. This is why I believe that looking very deeply at situations is good. You gain a very good feel for the subtleties that actually make a difference and those that don't. So, if you find it a little dull to wade through several pages of material devoted to just one decision then I'm sorry, but that's the way you get good. I am convinced that this kind of detailed understanding will be clearly reflected in your bankroll and there is a clear mathematical justification of this on page 185.

## **In Defence of Limit Hold 'Em**

I sometimes feel that the FL game is the poor relation amongst the poker variants. When the online poker revolution really took off around 2001/2002, limit was the game of choice and accounted for a vast per-

centage of the online poker traffic. At the time there was almost no information on how to play any form of poker and so the best players could show consistent profits. Naturally enough this situation soon changed and players became more aware of the theory of the game and, specifically, which hands were playable in which positions.

This created something of a problem in full ring games (9 or 10 players) since even weak players would only be playing at a tiny disadvantage if they had the discipline to play correctly pre-flop (which can be learnt in about half an hour and even if your memory is poor you can simply keep a sheet handy and refer to it) and didn't make any horrible decisions post-flop. The edge for the stronger players thus almost evaporated whilst variance increased alarmingly. In particular stronger players became frustrated at the impossibility (due to the fixed bet size) of protecting their strong hands.

In these circumstances NL (and tournaments for that matter) suddenly appeared to be a much more attractive proposition for the better players. Now the bet size is no longer fixed and it becomes much easier to protect strong hands. Weaker players also found these forms more appealing, probably for one or more of the following reasons:

- 1) Poker started to appear on TV and the games played on TV always featured tournament or NL play. Thus players coming to poker via TV would only be interested in these formats and would commence their poker careers in them.

- 2) NL and tournament play is, outwardly at least, a bit sexier than FL play. On every hand players play for their entire stacks or tournament lives. It is possible to make huge bets both as value bets or as bluffs and the pots can become massive. If you start off playing NL, then FL, with its fixed bet sizes and small pots, might seem to be a very feeble game in comparison.

- 3) Players who come to poker very likely have a bit of a gambling background. Tournaments and NL play recreate the "gambling thrill" much more effectively than FL ever can. If you give yourself an allowance of, say, \$100 for your poker hobby then you might notice the following two options:

a) You can play FL, say at \$0.10-\$0.20, and if things go well for a few sessions you might have grinded your \$100 up to \$125. This might perhaps be mildly rewarding but is unlikely to satisfy the thrill-seekers.

b) You can enter twenty \$5 tournaments and if things go well in *just one tournament*, you might make a final table and quite likely be playing for hundreds or possibly even thousands of dollars in prize money. Win or lose you will have had your adrenaline rush and will probably feel that it has been money well spent.

A lot of people like to gamble and option “b” fulfils this desire in a very much more satisfying way than option “a”. So, why play this “dull” FL game?

For a start, FL isn’t dull – I would contend that FL play is at least as skilful as tournament and NL play. It’s true that FL can be fairly dull in the full ring format but this version pretty much died out (at anything beyond the very low limits) several years ago. Nowadays FL is virtually always played very short-handed (4-5 players) or even heads up (my own particular favourite game). When FL is played short-handed it is a fabulous poker game which rewards skilful play and allows creativity to flourish. It is also the best place to learn poker for the simple reason that in FL play you often get to make decisions on every single street. This is in marked contrast to tournament or NL play where the major decision often boils down to, “shall I shove all my chips in here or not?” The problem is that this decision is very often reached pre-flop and if not pre-flop then it’s often on the flop.

This is all well and good but it leaves very little room for poker to be played on the turn and river. FL play, in complete contrast, requires mastery of play on all four streets. In this book there will be many, many examples of high level thinking from FL play and you will notice that almost all of them require decisions to be made on all streets. Learning how to play poker on all streets is undoubtedly the best training you can have and you won’t get that if the only decision you have to make is whether to shove all your chips in pre-flop.

## Playing Poker Seriously

### Should I become a poker pro? (short answer)

No (or at least, probably not).

### Should I become a poker pro? (more detailed answer)

Originally my plan for this book was to call it *Quit the Day Job and Play Poker* and I was planning that my first piece of advice in that book was to explain precisely why you should not do this. It all comes down to personal preference and how one wants to lead one's life but I would say that – for the great majority of people – poker is much better to have as a hobby (even a very serious hobby) than as a full-time profession.

Having said that I know a lot of people who play poker professionally and most of them wouldn't have it any other way. There are a lot of advantages compared to having a “regular job”. You can make your own hours, your rewards are totally based upon your effort and skill and you are your own boss. When it's good, it can be very good. However, you will inevitably have periods of time where you simply don't earn money and it takes a great mental strength to be able to deal with this especially if you have outside commitments (e.g. a family).

## Variance

*If you're not getting in 15K hands a month, you're just playing bingo.*

Anonymous online comment.

Variance is the poker player's nightmare. Variance is to a poker player what a natural disaster is to an insurance company. Actually “variance” is really something of a euphemism. When poker players say variance what

they really mean is “horrific bad luck”. However, no one likes a whining poker player and “horrific bad luck” is about as whiney as you can get, so players say variance.

In some ways poker is a bit weird. Most games instantly reward good play. Play tennis better than your opponent and, 95% of the time, you will win. Play a lot of tennis matches (to account for the occasional off-day) against a weaker opponent and you will end up ahead 99.9% of the time. Play a huge amount of poker against weaker opponents and you might win 55% of the sessions you play.

In the *long run*, if you’re better than your opponents you will win. However, the *long run* is a very slippery concept indeed. You can – and will – suffer adverse runs of luck that will last an appallingly long time. It is perfectly possible for the best players in the world to put in high volume and still having losing years (maybe not for limit play but for tournament play it’s certainly possible and also for the highest-stakes NL players). It requires a phenomenal mental toughness to withstand endless bad luck and still be able to perform at a high level. I don’t believe that anyone in poker handles bad luck well, but some players handle it less badly than others. Being able to keep playing at a good standard when luck has utterly deserted you is a key poker skill. It generally takes considerable experience to develop a good feel for how variance can affect your bankroll.

It is easy enough to do some basic maths to understand why bad runs can last so long. Let’s say you like to play multi-table tournaments with big entries (these can – *in the long run* [it’s that phrase again] – be very profitable because they are often filled with casual players who have little idea of correct strategy). You play in events with entries around the 1,000 mark. Although you might get something like 2x or 3x your entry fee back if you finish in the top 100 or so, it’s unlikely that you’ll make a really good return unless you get to the final table. At many stages in the tournament you will be all-in in a coin flip situation and you might need to win six of these to get to the final table. The chance of winning six consecutive coin flips is 1 in 64 (or about 1.56%) so, in principle, this would get you into the last 16. However, because you play better than a lot of the other players this amount of good luck might get you to the last ten – the final table.

So, if you have a good edge in such events you have a 64-to-1 chance to make the final table. Bearing in mind that you only really make a good return on your entry fee when this happens, how long can you fail to do this? The chance of it happening 100 times in a row is about 20%. If you play a couple of these tournaments a week there is a 20% chance that you can go a whole year without making a final table – and this is in an event where you have a pretty good edge over the opposition. The chance of it happening 200 times in a row is 4%. So now even if you can play one of these every day, there is still a reasonable chance (around 25-to-1) that you wouldn't make a final table for nearly seven months.

You might think that big tournaments will always be somewhat random and there is always going to be a substantial luck factor, so maybe cash games are a better bet to minimise variance? Not really. A very strong player in FL play might have an edge of 1BB/100 (i.e. an expectation to win 1BB per 100 deals) over the opposition in six-max play (ultra-short and heads up play can often yield higher win rates for the expert players) at the level where they play. This is a very impressive win rate and one that is probably achieved by around 5% of players. Bankroll management guidelines suggest that for a winning player a bankroll of 500BB is a good safety net. However, all the winning “experts” I know who specialise in FL have experienced downswings of around 1,000BB or more. I've had two of 900BB and one of 1,300BB.

There is no simple solution to this problem – you can't take out insurance against running badly. This is why it is absolutely critical to keep analysing your play and doing post mortems on your sessions. The important thing to focus on is to consistently put yourself in situations where you are better than the opposition. What is absolutely not important is worrying whether Lady Luck is smiling upon you right now.

Variance creates a further problem in that it distorts the learning experience in poker. Let's say you are trying to improve your chess game – so you do the usual stuff: study, maybe have some coaching, work with a software program etc. If you do improve then it's likely that your results will very quickly reflect your increased ability. You can expect to get better results against the same standard of opposition because your own play has

improved. If, on the other hand, your results don't improve you might have to conclude that your studying hasn't been successful and you might have to try a different approach. The point is that you get pretty good feedback just by playing the game.

Unfortunately, poker simply doesn't work like this. If you are purely results-oriented, you will never have a good understanding of where you're at. We all know that we can play well and lose for weeks or even months on end. However, an equally problematic concern (at least if you are serious about trying to play better) is that the reverse can happen – you can play badly and consistently win. The feedback from your results (certainly in the short term and very likely in the medium term) is totally unreliable.

So, how do you know if you're actually improving? Unfortunately there is no simple answer to this but there are some things you can do to help yourself. Looking over your sessions is the main one. If you play FL you can see if you're consistently playing hands with good equity. If you play NL or tournaments (or even Omaha) you can look at situations where you get it all-in. Are you, in general, getting it all-in in situations where you have positive equity? If so, then – win or lose – you are playing well. If not, then perhaps you aren't playing well and you need to address what you might be doing wrong.

This discussion of variance may seem rather long and you may be keen to move on to the meatier part of the book. However, the problems of variance should *never* be underestimated. It doesn't matter how strong you are as a poker player – if you can't handle variance positively you will never be successful. Variance goes hand in hand with bankroll management but I don't propose to discuss that topic as it is very well covered elsewhere. *However, I would contend that the discipline to be able to manage your bankroll and variance is probably the most important poker skill for a player with ambitions to be a long-term winner.*

Always remember that while success is not permanent, the same is also true of failure.

## **Rakeback and Rewards**

One feature of poker play that will not be discussed here are rakeback and reward programs. All I will say is that if you plan to play poker to any kind of serious level then it is essential that you maximise your income from them. Naturally, you will want to find the best deals and, equally naturally, the poker sites go out of their way to make their offers as fantastically complicated as possible so that a Doctorate in Poker Rakeback is required to comprehend every nuance offered. However, there are a number of sites, similar to price comparison sites, that will guide you in the right direction. Working through this requires mainly just common sense. Furthermore the structures and deals change so often that anything I research for this book is likely to be ancient history long before the book is published.

However, I would like to take this opportunity to raise a topic which may be worthy of further discussion. The amount of money that poker players have to pay – simply for the privilege of playing poker – is quite staggering. If you go onto any of the major sites, consider how many games are currently in progress and fiddle around with a pocket calculator you will possibly be astonished by the amount of money that sites take from the game. From my observations over the past couple of years I have a nasty suspicion that the game is possibly drying up a little and the amount of money that is bled away through rake possibly has something to do with this (naturally the US anti-gambling legislation is not helpful in this respect). Anyone over the age of about eight will understand that sites have to take a cut of the action in order to provide their service, but really – do they have to take so much? In 2010 I paid over \$40,000 for the privilege of playing poker – and I don't play anywhere near as much as some players. Meanwhile I paid about \$3,000 to my bank which provides a full secure online service as well as a whole load of other stuff too (and banks do not exactly have a reputation for being charitable institutions). Is it really so much harder to run a poker site than a bank? I wonder if the poker sites are short-sightedly strangling the game in the interests of generating short term profits. OK, rant over – on with the poker.