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**Authorized torrent preview of**

**Poker’s 1%**

The One Big Secret that Keeps Elite Players on Top

Ed Miller
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Introduction

This book is about a single idea. I call it a secret on the cover, but it’s more of an open secret. It’s an idea that’s very well known by all the top players in the world. For years now, these players have been studying and refining this idea to create distance between themselves and everyone else who plays poker.

It’s not like there’s a conspiracy. This secret is not jealously guarded by the poker Illuminati or anything. People have been talking and writing publicly about this idea for years. But, for various reasons, the vast majority of poker players are today still, on a practical basis, unaware of it.

With this book, I aim to change this state of affairs. I want the poker players of the 99 percent—all the folks that grind all those hours—to understand the fundamental reason that elite players have become elite and left everyone else in the dust. I want people to understand what has made players such as Phil Galfond so successful.

This understanding alone won’t make you elite. After all, it’s just a thought. To become elite, you need to do hundreds and thousands of hours of analysis informed by this central idea. Work. Just like any other field, to become elite, you need to know what work to do, and then you need to work, work, work.

I make this analogy often, because I think it’s apt. Getting good at poker is the same as getting fit. It’s not enough to pop in the workout DVD, sit on the couch, grab some popcorn, and watch. The DVD is useful because it motivates you, and it instructs you in how to do the work that will give you maximum benefit. But results only come when you actually do the work.

I have several goals with this book. First, to motivate you. Here’s my pep talk. If you read this book and then put in the work I show
you how to do, you can get a whole lot better at poker than you are today.

No, you likely won’t win millions like Galfond or Ivey. Just like you won’t become the next Adrian Peterson or Cristiano Ronaldo just by going to the gym every day. To reach the tip top of poker requires elite inborn ability, knowledge of the idea in this book (and more advanced ideas too), and the drive to work like crazy.

But most regular folks can get really fit if they put in the work—and they do their workouts correctly. And similarly, most people can get pretty darn good at poker if they put in the work, but they need to work correctly.

I hope that’s motivating. You can get pretty darn good at poker—much better than you are today—by reading this book and doing the work I show you how to do.

Second, this book is designed to get you working the right way. I talk to a lot of people about poker. Most poker players are focused on the wrong things. Almost all of them have developed thought processes that will stunt them. Eventually, if these players challenge themselves against better opponents, they will be unable to win. This is true even if they work to get better, because they will be working on the wrong things.

The idea in this book is key to breaking out of this cycle. It’s an idea that will, if you use it regularly to analyze your hands, point you toward the systematic errors you make that leave you vulnerable against better players.

In many ways, this is a very simple book. I present one idea, and I show you how to use it. I have made the book as simple as possible. Some might say I have oversimplified things. If I’ve oversimplified something, it’s because I want to make sure the point is clear and doesn’t get lost in difficult calculations.
The reason I believe that this idea has remained an open secret for years is because the application of the idea can quickly become very complex. The math behind this idea starts out complicated and becomes exponentially more complicated as you demand more precision.

If you want perfect, forget it. If you want near perfect, you’ll need high math aptitude, lots of patience, and thousands of hours to work things out.

Most of the public discourse on this idea is at the near perfect level. It’s complicated and difficult for lots of players to follow and apply.

This book is written at the “good enough” level. If you understand everything in this book, it is good enough to get you over a hump and make you a force at small and medium stakes no-limit hold’em, either live or online. (Medium stakes online at the time of this writing means roughly the $1-$2 or $2-$4 level. Medium stakes live means the $5-$10 level.)

I have a feeling that most people who read this book will learn the central idea, try out the analysis as I present it, and go no further. That’s fine. It’s good enough to make you one of the best regulars in your medium stakes game.

But it’s not good enough if you want to crack the 1%. If your goal is to become elite, you have to dive further down the rabbit hole and do the complex work to refine the ideas as I present them in the book. Everywhere in the book where I throw a number out and say something like, “This number is approximate—it’s close enough,” is a place where you will need to work to try to get a better number.

For the most part, you’re on your own for that. At the end of this book, I will direct you to a few more advanced books and some software tools that will help you. But most of this refined-level work is unpublished and truly a secret. It gets hashed out over
dinners among elite players and in long hours in front of glowing computer monitors.

That’s the reality of modern poker.

The goal of this book is more modest. I want to bridge the gap between the 1% and everyone else. I want to show you what you may be missing. I want to give you a few “aha” moments. And I want to start you out on the path from here to the top.

How far you take it from there is up to you.
Don’t Play No-Limit Hold’em Like It’s A Slot Machine

This is a slot machine.

You put your money in, press a button, and it deals you a hand. You choose cards to discard, hit another button, and it deals you replacement cards. Then it checks what hand you made and pays you accordingly. Six coins for a flush. Four for a straight. Nine for a full house. Make quads, and you get twenty-five coins.¹

¹ Apologies to my friend Bob Dancer for calling a video poker machine a “slot.” Bob has carved out a career for himself playing video poker professionally. He’s also created a lot of video poker educational
The payouts are fixed. Make the hand. Get paid. That’s how it works.

The vast majority of no-limit hold’em players play poker like they’re playing a slot machine. They’re trying to make big hands. That’s foremost in their thought process. Let’s flop a set. Let’s make a flush. Low straights are sneaky. Let’s try to make one of those.

Sometimes when I take on new students, I sit and watch them play for a while. They’ll toss a few chips in with a hand such as Kd6d. I’ll ask them why, “What’s your plan for that hand?”

Invariably, the answer involves flop, turn, and river cards that, when combined with a king and six of diamonds, make a rare and very strong poker hand.

It’s nearly universal. Almost everyone who isn’t already a stone cold professional player thinks this way. I’ll get in cheap and see if I can flop something. Let’s make a big hand this time. Stacking people sure is fun. Implied odds, implied odds, implied odds.

Unfortunately, there’s a problem. A big problem.

Poker is not a slot machine. If you make a flush, you don’t get paid six coins. Sometimes you stack someone. But much more often, you get almost nothing for it. And every once in a while, you’ll run into an even better hand, and you’ll be the one getting stacked.

Take these hands, for instance.

Some people limp in, and you limp with:

---

materials, and he teaches classes on the game. If video poker interests you, look him up.
The blinds call and check. The flop comes:

\[
\begin{array}{c}
2 \\
3 \\
4 \\
\end{array}
\]

Bingo!

Everyone checks, you bet half the pot, and everyone folds.

Someone raises preflop, and you call with:

\[
\begin{array}{c}
3 \\
3 \\
\end{array}
\]

The big blind calls. The flop comes:

\[
\begin{array}{c}
9 \\
4 \\
3 \\
\end{array}
\]

The big blind checks, and the preflop raiser checks. You bet half pot, and both players fold.

Someone raises preflop. A player calls, and you call with

\[
\begin{array}{c}
8 \\
6 \\
\end{array}
\]

The big blind calls. The flop comes:

\[
\begin{array}{c}
\heartsuit \\
\heartsuit \\
\heartsuit \\
\end{array}
\]

Everyone checks to you. You bet half pot, and everyone folds.

Be honest. How many times have you played hands like these? You hit gin on the flop, and you don’t even begin to sniff someone else’s stack. I’ve played these hands a zillion times.
How about this one—it’s a $2-$5 game with $1,000 stacks. A player opens to $20. Another player calls, and you call with 8h6h. The big blind calls. There’s $82 in the pot with $980 behind.

<table>
<thead>
<tr>
<th>$2-$5</th>
<th>Image:</th>
<th>Action:</th>
<th>Hand:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP2</td>
<td>Player</td>
<td>$20</td>
<td>♦️♣️</td>
<td>$1000</td>
</tr>
<tr>
<td>Cutoff</td>
<td>Player</td>
<td>Call</td>
<td>♦️♣️</td>
<td>$1000</td>
</tr>
<tr>
<td>Button</td>
<td>Hero</td>
<td>Call</td>
<td>8♥️6♥️</td>
<td>Covers</td>
</tr>
<tr>
<td>Big</td>
<td>Blind</td>
<td>Call</td>
<td>♦️♣️</td>
<td>$1000</td>
</tr>
</tbody>
</table>

The flop comes Ah9h2h. Everyone checks to you. You bet $50. The big blind calls, and the other two players fold. There’s $182 in the pot with $930 behind.

<table>
<thead>
<tr>
<th>💢♠️9♥️2♥️</th>
<th>Pot: $82</th>
<th>Range:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player (Big Blind)</td>
<td>Check/Call</td>
<td>♦️♣️</td>
<td>$980</td>
</tr>
<tr>
<td>Player (MP)</td>
<td>Check/Fold</td>
<td>♦️♣️</td>
<td>$980</td>
</tr>
<tr>
<td>Player (Cutoff)</td>
<td>Check/Fold</td>
<td>♦️♣️</td>
<td>$980</td>
</tr>
<tr>
<td>Hero (Button)</td>
<td>$50</td>
<td>8♥️6♥️</td>
<td>Covers</td>
</tr>
</tbody>
</table>

The turn is the 3c. The big blind checks. You bet $150, and he check-raises to $420. You call. There’s $1,022 in the pot with $510 behind.
The river is the 4d. He shoves for $510.

How do you like your small flush?

You hate it, right? This is the cue for you to take your sunglasses off and say, “This is soooo sick,” between seven and nine times. Then someone calls clock on you, and you wait it out for 55 seconds, fidgeting nervously with your chips and sunglasses. Finally you end up folding because ultimately you know as well as everyone else that the guy has the king-high flush.

On a slot machine, you try to make a flush because if you make one you will get paid six coins. However, in no-limit hold'em, very frequently making a flush doesn’t pay squat.

The Flipside

On the other hand, sometimes making a flush is hugely valuable. Consider this hand—it's a $2-$5 game with $1,000 stacks. You open to $15 from one off the button with Ac4c. The small
blind reraises to $55. The big blind folds, and you call. There’s $115 in the pot, and you have $945 behind.

<table>
<thead>
<tr>
<th>$2</th>
<th>$5</th>
<th>Image:</th>
<th>Action:</th>
<th>Hand:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutoff</td>
<td>Hero</td>
<td>$15/Call</td>
<td>$4</td>
<td>Covers</td>
<td></td>
</tr>
<tr>
<td>Small Blind</td>
<td>Player</td>
<td>$55</td>
<td></td>
<td>$1000</td>
<td></td>
</tr>
</tbody>
</table>

The flop is 8h5c3s. The small blind bets $70. You min-raise to $140, and he calls. There’s $395 in the pot, and you have $805 behind.

<table>
<thead>
<tr>
<th>8 5 3</th>
<th>Pot: $115</th>
<th>Range:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player (Small Blind)</td>
<td>$70/Call</td>
<td>?</td>
<td>$945</td>
</tr>
<tr>
<td>Hero (Cutoff)</td>
<td>$140</td>
<td>$4</td>
<td>Covers</td>
</tr>
</tbody>
</table>

The turn is the Tc. The small blind checks, and you bet $270. The small blind calls. There’s $935 in the pot, and you have $535 behind.

<table>
<thead>
<tr>
<th>8 5 3 10</th>
<th>Pot: $395</th>
<th>Range:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player (Small Blind)</td>
<td>Check/Call</td>
<td>?</td>
<td>$805</td>
</tr>
<tr>
<td>Hero (Cutoff)</td>
<td>$270</td>
<td>$4</td>
<td>Covers</td>
</tr>
</tbody>
</table>

The river is the Qc.
You made a flush. I guarantee that the moment you see that river card, you will be mentally fist-pumping as hard as you ever do at a poker table.

This is a flush that matters.

What's the difference between this hand and the other hands? In this hand, making a flush and winning a huge pot was Plan D. Plan A was to win the pot preflop with a blind steal. When that didn’t work, Plan B was to win the pot on this favorable flop.2 When that didn’t work, Plan C was to win the pot on the turn with a fairly massive bet. When that didn’t work, it became fairly clear that the small blind held a big overpair.

It was time for Plan D. Suck out.

If you’re like most no-limit players, you rarely, if ever, play hands like the above. Maybe you fold preflop. Maybe you just call on the flop rather than raise. Maybe you even fold the flop. Maybe you raise the flop, but you check it back after you get called when you turn the flush draw.

If you don’t play hands like the above, then you’re doing it all wrong.

2 If it’s not obvious why this flop is “favorable”, keep reading. This stuff is what the book is about.
Flushes are rare hands. A slot machine pays you a fixed six coin payout every time you make one. It’s a payout that’s finely tuned to compensate you (almost) fairly for the hand’s rarity.

There’s no finely tuned fixed payout in poker. Fishing for flushes on the flop and turn will leave you disappointed. Too often you will end up winning very little for your big hand. The rest of the time, when you miss your hand, you’ll be folding and folding, bleeding money slowly away.

And if you make a small flush and play a massive pot, there’s a good chance you’ll be losing it.

Flushes are much more useful when the pot already happens to be massive when you make one.

The Other Problem

Here’s the other problem. You’re playing to try to make big hands and stack people. Simple enough.

That guy on your left, guess what his plan is. If you guessed that he’s trying to make big hands and stack people, you’re correct. How about that older gentleman in the Yankee’s hat across the table? Yup, he’s trying to make a big hand and stack someone. How about that woman with the headphones on trying to ignore the unhygienic fellow to her right? She’s trying to make a big hand and stack someone. So is the smelly guy.

Once upon a time, you could sit, wait for big hands, and count on some bumbling fool with no kicker to hand you a stack for it. Those days are gone. When I sit in a randomly-selected $2-$5 game in Las Vegas these days, I’d guess at least seven out of my nine opponents all have the same game plan. They want to make big hands and stack people, while refusing to pay off other players’ big hands.
If everyone else plays with your same strategy, who wins? Not you.

**The Bottom Line**

As long as you build your strategy around trying to make big hands, you will never be good enough to move up and match wits with the professionals. You will lose to them. Until you abandon the entire thought process and rebuild from scratch, you will never beat them.

Poker is not a slot machine. Stop playing it like one.
Smashing Tight-Aggressive Players

The first step many players take, after they realize that throwing money at pots hoping to hit a jackpot doesn’t work, is that they become tight-aggressive (or TAG) players.

People have written entire books attempting to explain how to play this way. I’ll explain it in twelve words.

Stick to good hands preflop. Bet when checked to. If raised, fold.

Betting when checked to is the aggressive part. Sticking to good hands preflop and folding if raised is the tight part. Tight-aggressive, there you have it.

This works. As long as you don’t have a ranch back home full of rescued alpacas to support, you can make a modest living playing my twelve word strategy in medium stakes no-limit hold’em games across the country and likely around the world.

The TAG strategy improves upon the slot machine strategy because it picks up many small and medium pots with aggression, while still being present to catch the occasional stack with a monster hand.

Slot machine players do a lot of flop missing in between big hands, so they also do a lot of checking. If you bet when they check to you, most of the time they fold and you win.

The tight part of the TAG strategy is critical, or otherwise most of these players would give back their gains, and more, by paying off with second-best hands or by making wild, poorly-supported bluffs.

Therefore, beating a TAG player is simple.

Raise.
That word kills a TAG strategy. “If raised, fold.” That’s how a TAG plays. So beating a basic TAG strategy is simple. Raise.

Okay, okay. I'll admit that it’s not quite one-word simple. You want to choose intelligently the situations to raise. You specifically want to pick situations where the TAG player will tend to bet junk hands, but to pot-control with medium-strength hands. Situations where the TAG will bet medium-strength hands, but fold them to a raise are also just as good. Choosing these situations well requires both an understanding of board textures and also how to construct opponent hand ranges.

Once you have these understandings, however, destroying a prototypical TAG player is indeed as easy as raising. The TAG strategy revolves around betting frequently with the intention of folding to a raise. This intention creates perpetual, enormous vulnerabilities that, once you know what you’re looking for, are very easy to exploit.

My two previous books, How To Read Hands At No-Limit Hold'em and Playing The Player, lay out a detailed blueprint for destroying a typical TAG player. If you haven’t read these titles yet, don’t worry. You can understand everything in this book without that background. But after you’re done here, definitely go back and read them.
The Big Picture

In two short chapters I’ve trashed the two strategies most widely employed among regular no-limit hold’em players. If I sit down in a $1-2, a $2-$5, or micro- or small-stakes online no-limit hold’em game, at least 75 percent of the regulars in the game will be playing some approximation of either the slot machine style or the TAG style.

I hear people say that poker is dead. All the easy money is long gone, they say. Games these days are just a bunch of nits trying to squeeze blood from a rock.

I laugh. It’s ridiculous. When 75 percent of regular no-limit hold’em players use strategies that can be absolutely crushed with a simple counter-strategy, the game ain’t dead. It’s nowhere close to dead. The average no-limit player makes significant mistakes in virtually every single hand they play. This is not what a dead game looks like.

The game only feels dead if you’re the one playing like the slot machine or playing like a not-so-great TAG. If you insist on just sitting back, trying to flop more sets than your opponents do, then yeah. Good luck with that.

If you are willing to put in the work to understand the game on a much deeper level, then you’ll sit in a typical $2-$5 or $5-$10 game and see it for what it is—eight people who have no idea how to play no-limit hold’em well and you.

An Inconvenient Truth

No-limit hold’em is a math problem.

That’s all it is. It’s a math problem. It’s just like the word problems you used to answer on standardized tests, except about a zillion times more complicated. There are 52 cards. Stacks start at $500
and can be bet in increments of $5 at a time. Everyone gets two cards. That’s 1,326 possible combinations. Then one of 19,600 flops comes. After that, there are 2,162 permutations of possible turn and river cards.

These are big numbers, and when you multiply them together, they get really big. But they’re numbers—finite numbers. This fact means that no-limit hold’em is just a math problem.

Because it’s a math problem, there is, somewhere out there in math land, a solution to it. There’s a perfect way to play no-limit hold’em—a way that’s unbeatable and that beats anyone playing the game differently.

Because it’s such a complicated math problem, we humans are nowhere close to solving for the perfect solution. Even using computers, because of the vast complexity of it, we don’t currently know the perfect solution for a six- or nine-handed no-limit hold’em game.

There’s a lot of good news, however. First, solving for the perfect solution is completely unnecessary to make money playing poker. Second, we can figure out a lot about what the solution looks like through some simple thought experiments. Third, if you play the game with a strategy informed by thinking about the solution, you will absolutely destroy the 99 percent of players out there who haven’t even begun to think this way.

**The Bottom Line**

Here’s the bottom line. The way you think about no-limit hold’em right now, it’s probably wrong. There is, in fact, a right way to think about and play no-limit hold’em. When we’re playing the game, we’re really just playing through a math problem, and that math problem has a math-based solution. The closer you get to the solution, the better you’ll do. There is not a top player today who does not understand this truth.
My goal in this book is to show you, in an intuitive way, how you can improve your play by understanding more about what this math solution looks like.

If heavy math isn’t your cup of tea, rejoice. I am not going to throw a bunch of numbers at you to memorize, nor am I going to slog through repeated lengthy derivations of concepts and values.

Quite the opposite, in fact. I am going to try to give you as intuitive as possible an understanding of how to play no-limit hold’em—how to really play the game—without the heavy numbers and lengthy proofs. I just want you to play better. That’s what I’m prepared to do.

There will be a few numbers in the book. It’s impossible to write a useful poker book without at least a few basic numbers. Please note, however, that all the numbers in the book are approximations. We’re not solving for perfect poker here, so the numbers are not going to be perfect. They’re instead designed to be intuitive. I want you to have a series of aha moments when you read this book. I’m trying to get you to change the macro level way you think about many common no-limit situations. The nitty-gritty details—they are for another book (probably more like one hundred books).

With that, let’s get started. We’ve got a lot of ground to cover.
The Frequency Game

No-limit hold’em is a game of frequencies. Get your basic frequencies wrong, and no amount of soul owning will make you a winner. Get your frequencies close to right, and you can play 48 tables like a robot and print money.

This is the key insight of the book. By the time you’re finished reading, you’ll understand exactly what I mean.

Chances are, when you think about poker, you don’t think in terms of frequencies. You think about odds and outs. You think about implied odds and hand ranges. You think about value bets and bluffs. But you don’t really think about frequencies, which is a big problem, because frequencies are the heart and soul of the game.

Think about other gambling games. Roulette is a simple one. There are 38 numbers, and each spin the ball lands randomly on one of them. The frequency for any particular number is 1 in 38. This game favors the house, since the house pays only 35-to-1 on a winning bet.

But what if the frequency were shifted slightly? What if instead of a 1 in 38 chance of landing on a 7, it were a 1 in 33 chance? All of a sudden, you could now bet 7 repeatedly and beat the casino until the security guards dragged you outside feet first.

The frequency could change for a number of reasons. The wheel could be biased. You could devise a way to predict the ball’s path based on rotational velocities. No doubt there are other possible explanations for a change in the frequency.

More to the point, would you notice? If you walked by such a roulette wheel in a casino, would you notice that the frequency was off? Could you spot the opportunity? If you could, making money would be so easy. Just bet the house maximum on 7 until the suits cry uncle.
But could you spot it? I bet you couldn’t. If you’re like most poker players, you walk right by the roulette wheels without giving them a second glance.

Even if you stopped and watched for a few spins, could you tell that the frequency for a 7 had changed from the expected 1 in 38 to 1 in 33? Probably not.

If you just watched a few spins, you’d be unlikely to see the ball land on a 7 even once. There would be nothing that would tip you off.

In order to detect the altered frequency, you’d have to be watching the wheel quite carefully and purposefully. Not only would you have to watch many spins, but you’d also have to know exactly what you were looking for. Only then could you identify the profitable opportunity. However, once identified, making money from it would be easy.

A pass line bet in craps wins 49.3% of the time and pays even money. Since it wins less than half the time, the bet favors the house. What if you could increase that frequency to 50.7%? Again, you’d kill the house placing pass line bets.

If you were watching a shooter, could you tell the difference between one who wins a pass line bet 49.3% of the time (because the dice are behaving as a random model predicts) and one who wins 50.7% of the time (presumably because he can alter the rolls of the dice in some slight way)?

Again, likely not. It’s too subtle a difference for the human brain to detect through normal observation. You’d have to watch for quite a while and know exactly what you’re looking for.

Yet that slight change flips who wins and who loses.
And so it is with poker. No-limit hold’em is, of course, a much more complex game than roulette or craps. But, like those two other games, poker is a gambling game. And, like those two other games, whether you win or lose depends on the frequencies of various events. And, like those two other games, you cannot figure out whether you have winning frequencies or losing ones unless you know exactly what you’re looking for.

And this is precisely what 99 percent of no-limit hold’em players cannot do. They cannot sit in a game and identify if all the frequencies at play add up to them winning or losing. They simply don’t know what they’re looking for.

**Folding Frequencies**

Any time one of your opponents bets, what you do next breaks down into three frequencies. You have a raising frequency, a calling frequency, and a folding frequency.

Let’s say it’s the turn in a $2-$5 game. There’s $210 in the pot. Your opponent bets $180. You could fold 30 percent of the time, call 60 percent of the time, and raise 10 percent of the time. This set of frequencies makes your opponent’s bet win or lose some amount of money.

Or instead, you could fold 50 percent of the time, call 35 percent of the time, and raise 15 percent of the time. This set of frequencies makes your opponent’s bet win or lose some different amount of money. That is, your opponent’s hand and the board have stayed the same, but the value of his bet (and, therefore, his entire hand) has changed based on the frequency of your responses.

Take a moment to think about what that means. I haven’t talked about what hands you might hold. This is because, to a significant degree, the hands you hold do not matter. Your opponent’s bet
makes money based primarily on the frequencies of your responses.

For example, if you fold too much on a specific turn card, your opponent’s bet makes money. If you start folding less, he’ll make less money, and therefore you’ll make more money.

This is true so long as you choose the hands to call and raise with some level of intelligence. If you decide to increase your calling frequency by doggedly calling down with 72 off suit every time you are dealt it, well no. That’s not going to make you money.

But as long as you’re picking hands at every point that make some poker sense, then what I said is very true. If your frequencies are better than your opponents’ frequencies, then you will win over time. Tweaking your hand choice will improve you incrementally, but the frequencies are most important.

This focus on frequencies over hand choice is exactly backwards from how most people play poker. They think about hand strength first. Then they place hands into fold, call, and raise buckets based on perception of strength. The frequencies are permitted to just fall out from these placements without a second thought.

Say a player on a particular river card happens to hold eight folding hands for every two calling or raising hands. This player will have a fold frequency of 80 percent. And never will the player think, “What is my folding frequency on this river card?” or, “Gee, should I really be folding 80 percent of the time on this river card?” He’ll just fold his folding hands and call his calling hands.

Folding frequencies, as it turns out, are enormously important. When you fold, I win. It doesn’t matter what my hand is. Therefore, if I want to win money from you, all I need to do is find situations where your folding frequency is too high and bet whatever two cards I happen to hold.
In today’s game, the vast majority of regular no-limit players have folding frequencies on the turn and river that are too high. This means that all I have to do to win money is to identify such situations and then bet. This particular move is perhaps the most important way that I make money playing no-limit hold’em.

However, much like in the roulette and craps examples above, if you don’t know to look for it, you can play poker for thousands of hours and never notice that people’s folding frequencies are wildly out of whack.

**Betting Frequencies**

Betting frequencies are equally important. When you bet the pot, you are offering your opponent odds to call. When you bet $100 into a $100 pot, for example, your opponent gets $200-to-$100, or 2-to-1 on a call. These are strong odds that encourage calls from a wide range of hands.

The problem with this simple pot-odds point of view is that after calling these early pot-sized bets, more cards—and potentially more bets—are on the way.

But how often, exactly, are more bets on the way? What does your opponent’s betting frequency look like on future streets?

This is, it turns out, a critical question. Say you expect your opponent to bet the next card only 20 percent of the time. Because the betting frequency is so low, you expect these bets to be mostly good hands and few bluffs.

If this is the case, you can essentially ignore the threat of future betting and treat the 2-to-1 proposition before you at face value. Most of the time, 80 percent, your call will indeed close the betting, and you’ll get your 2-to-1. The other 20 percent of the time, your opponent has a big hand, and you can fold safely without fear that you’re making a mistake.
Now go the other direction. Say your opponent has a 100 percent betting frequency on the next card. If this is the case, you can be sure your opponent is firing tons of bluffs, and you can simply call down with all your good bluff catching hands. Sure, your opponent has ruined those 2-to-1 odds with his second bet, but you’re up against a much weaker set of hands, and you can just close your eyes and stick your money in with your above average hands.

Whenever you make a bet, in order to play a strong, math-based strategy, you must also bet the next street a certain percentage of the time. Not too little and not too much. Your betting frequency must be correct and hit that happy medium.

In practice, when most people play no-limit hold’em, their betting frequencies are woefully out of whack. They bet too frequently in many situations and too infrequently in others. These situations are predictable and therefore very exploitable.

You just need to know what you’re looking for.
**MOST POKER BOOKS SUCK**

Right? You wouldn’t pay a dime for them because they aren’t worth a dime. They’re full of tired old—wrong—advice and fluff stories about the author that just wastes your time.

I know. Honestly, I started writing poker books because when I was trying to learn the game, so many I read sucked so badly.

This book doesn’t suck.

I hope that’s clear by this point. This book is fully-loaded with advice that will ultimately make you back at the tables many times over what you pay for the full, legit copy.

Please consider buying a copy. I depend on book sales to support my family. Sure, if everyone pirated my books beginning tomorrow, I could play poker 40 hours a week and support my family that way. But I’d never write another book. I enjoy writing and teaching. To me it’s a win-win. Win for the reader because you get better at poker. Win for me because I get to live life the way I want to.

Use discount code

**ThanksForSupportingAuthor**

http://edmillerpoker.com/
The Secret Of The 1%

And so it is that we’ve come to the big secret. This is the insight that bought Phil Galfond a Manhattan apartment with a custom-built metal slide and the insight that keeps the rest of the poker community fighting over scraps.

Poker is not a game of people played with cards. It’s not about knowing when to hold’em and when to fold ‘em. It’s not about trying to make hands and stack people. It’s not about playing tight. It’s not about being patient. It’s not about bullying people. It’s not about being the most aggressive player at the table. It’s not about any phony ideas like these that lie at the heart of 99 percent of players’ strategies.

Like all other gambling games, no-limit hold’em is a game of frequencies. The math of the game dictates that you check, fold, call, bet, and raise in all situations with specific basic frequencies. These frequencies are all but impossible to exactly solve for. But if you are satisfied with just getting close to the right frequencies, you should be satisfied with that (at least if you would like a custom-built metal slide). It’s actually not that hard.

If your frequencies are more correct than the players you play with, you will win their money.

Run over that last sentence with a highlighter. It’s true. Yet if you are unused to thinking about poker this way, you probably won’t believe it at first. That’s ok. The rest of the book is devoted to getting you to buy into what that sentence means and its implications.

The rest of your poker career should be devoted to figuring out how to make your play take maximum advantage of that idea.

If your frequencies are more correct than the players you play with, you will win their money.
A strong poker strategy begins with figuring out what your frequencies should be in all situations. Then you figure out what hands to play what ways to fill out those frequencies.

**The Two Rules**

The basic math of the game dictates that the following two rules hold in most situations:

1. If your opponent bets or raises, you should usually call.
2. If you bet one street and your opponent calls, you should usually bet again on the next card.

These rules run counter to the conservative strategy most regular players adopt, but it’s fairly easy to show why they must be true.

Starting with the first rule, let’s put these rules into context. Say it’s the river. Your opponent bets $100 into a $100 pot. How often should you call?

You’re getting the aforementioned 2-to-1 pot odds, so you should call with all hands that have a 33 percent chance or better to win. More to the point, your opponent is getting even money on his bet (risking $100 to win $100), so if you fold more than 50 percent of the time, he can bet any two cards profitably.

If you routinely allow your opponent to bet any two cards profitably by folding more than 50 percent of the time (to a pot-sized bet), you are just handing over your money.

Now consider that most river bets are closer to half-pot than full pot. Say your opponent has bet $100 into a $200 pot. Now you’re getting 3-to-1 odds, so you need to win only 25 percent of the time to call. And your opponent is getting 2-to-1 on his bet, so if you fold more than 33 percent of the time, he can bet any two cards profitably.
You need to call more than 67 percent of the time to deny your opponent a profitable half-pot river bet with any two cards.

That’s a lot of calling! It’s a whole lot more calling than your typical $2-$5 no-limit regular player does. (Yes, you can indeed bet any two cards profitably on the river for half-pot in many games. Try it.)

The same logic also applies on previous streets. When your opponent bets, there is a threshold beyond which he can bet any two cards profitably. When your opponent bets, he’s giving you odds to call, and he’s giving himself odds to bet any two cards. If you expect to not get trampled, you have to call frequently enough to deny a profitable bet for any two cards.

Therefore, when your opponent is betting less than the pot, you should usually call.

Now let’s look at the second rule—it is similar. I already showed you what happens if you bet one street and then fail too frequently to bet the next one. You give your opponent effective 2-to-1 pot odds to call on an early street. And with your big hands you let them off the hook too easily because you aren’t bluffing enough.

Consider this example hand.

A player opens for $20 in a $2-$5 game, and I call on the button.

<table>
<thead>
<tr>
<th>$2-$5</th>
<th>Image:</th>
<th>Action:</th>
<th>Hand:</th>
<th>Starting Stack:</th>
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<tbody>
<tr>
<td>Cutoff</td>
<td>Player</td>
<td>$20</td>
<td>??</td>
<td>$700</td>
</tr>
<tr>
<td>Button</td>
<td>Hero</td>
<td>Call</td>
<td>?2</td>
<td>Covers</td>
</tr>
</tbody>
</table>

The flop comes Ah9s4d. He bets $25 on the flop, and I call.
The turn is the 7d. He checks, and I bet $70 into the $97 pot. He folds.

This is a classic hand where the typical $2-$5 player violates both rules and beats himself in the process. The preflop raiser bets an ace-high flop, and assumes that he can represent the ace. He gets called. When he doesn’t have the ace, he checks the turn and folds to a bet (assuming, perhaps, that I have the ace).

Even a tight preflop raiser will hold an ace less than half the time on any given ace-high board. He bets half the pot on the flop, offering 3-to-1 odds on a call. That means I have to win only 25 percent of the time to justify calling the bet.
Yet on the next card, after I call, he checks more than half the time (since he has no ace more often than not). And when I bet the turn, even if he checks some aces, he still folds more than half the time that I bet.

What does this mean? It means that even if I’m playing two blank cards with no chance whatsoever to have a strong hand, I still win more than 25 percent of the pots after calling the flop. My turn bet shows a profit as well since I’m giving myself odds by betting less than the pot, and my opponent is folding more than half the time.

Throw in the fact that I’m not playing blank cards—I can make a good hand just as well as my opponent can—and my opponent is absolutely killing himself with this strategy.

He’s violating both of my rules. He makes a bet on the flop where he follows through on the turn less than half the time. Then when I bet the turn, he folds more than half the time. Why is he making these mistakes?

It’s because he’s thinking about hand value first, not frequencies. His entire strategy revolves around that ace on the flop. He bets the flop because he thinks, as the preflop raiser, that he can represent an ace. He hopes that his opponent will play a strategy of calling with aces and folding everything else.

When he gets called, he assumes his opponent has an ace. Therefore he decides to stop bluffing. He checks and folds the turn.

In fact, his strategy works fine if I cooperate and fold all my non-ace hands on the flop. Now I’m violating one of the rules—folding to a bet more than half the time—and he’s profiting from it. After I break a rule first, he can break the rules on the turn and not get killed for it.
But all I have to do is follow the rules, and my opponent beats himself. Specifically, I must usually call his flop bet. Once I do that, I win by default.

**The Fallout**

These two rules are pretty simple, but I’m guessing that no matter how long you’ve played poker and no matter how many books you’ve read, you haven’t seen them before. In fact, there’s a good chance that this book will turn everything you believe about how to play no-limit hold’em on its head.

My guess is that the second rule is a little less foreign to you. If you bet one street and get called, you should usually bet again. This is a commandment to be aggressive. They called you? Just fire a bigger barrel at them on the next card. Called you again? Fire again! Shove!

Yes, that part of conventional wisdom is indeed correct. The math clearly supports a highly aggressive play style. The thing is, even those who fancy themselves “tight-aggressive” players aren’t nearly aggressive enough. They give up too much when called. They play far too many situations like our anti-hero did above. They bet once or twice and, when called, give up before firing the final barrel.

More specifically, most players give up too much on certain board textures while being more aggressive on others. This is a symptom of putting hand strengths before frequencies. Frequencies don’t care what the board texture is. If you’re supposed to bet 70 percent of the time, you bet 70 percent on A-2-2 and 70 percent on Q-T-8. But a 70 percent hand range looks a lot different on A-2-2 than it does on Q-T-8. If you want to bet 70 percent on A-2-2, you are required to bet with a lot of air hands such as T9. On Q-T-8, you can usually find enough hands that connect with the board that you don’t have to continue with air hands such as A3.
I am intentionally oversimplifying the impact of board texture here. Board textures can shift the value of position considerably, and therefore can affect how frequently the out-of-position player wants to continue in a hand. But once you understand how board texture affects position, the idea here becomes primary. You don’t fold hands just because they don’t meet some arbitrary hand strength standard. You choose your frequencies first and then find hands that fit.

So you should, indeed, be aggressive. Once you start betting, you should keep it up more often than not on a wide variety of board textures.

The first rule will likely be tough to wrap your head around. But you absolutely should not play tight, at least if being tight means folding very frequently to turn and river bets. If your opponent bets half-pot at you postflop, you should be calling or raising the great majority of the time, folding only your most hopeless hands.

Preflop is another story. It’s right to play tight preflop, but not because preflop is some special street. It’s because preflop is usually played very multiway. The rules kick in once the field narrows to two players. (Weaker versions of the rules apply to three- and four-way pots as well.)

So if you’re playing heads-up, the rules apply from the moment the cards are dealt. Otherwise, you’re playing tight preflop in a 9-handed game, but usually by the turn you’re in a situation where the rules demand that you stop with all the folding.

If you’d like, you can think of the correct way to play no-limit hold’em as tight but sticky. Preflop, you are selective with your hands because you have so many opponents. But once you enter a pot, you fight. You bet frequently, and you keep betting when you get called. When your opponent bets, you aren’t an easy fold. You
stick around. Your give your opponents few freebies, few cheap ones.

When checked to, you usually bet. When raised, you usually call.

In other words, you’re a huge pain in the ass.

This is the way the 1% plays. Elite players bet a lot and don’t fold very much. If you see an elite player critique lesser play—in a video, on Twitter, in an article, or in a coaching session—you will see the same themes come up over and over again. “Why’d you stop betting? Keep going!” and, “Why’d you fold? You have to call there at least two-thirds of the time.”

It has to be this way, as it’s what the math of the game demands.

A few quick points before we move on.

1. **If you doubt me, rail some $25-$50 or higher no-limit games on the Internet.** Guys who play these games are the 1%. Watch how they play. Don’t focus on individual hands. Look at frequencies. When someone 3-bets preflop, how often does the other player fold versus call or 4-bet? When someone bets the flop, how often does the other one fold? How often does the flop bettor give up when called? When there’s a postflop raise, how often does the other player fold?

   If you watch long enough to get a feel for these basic frequencies, you’ll see that the players roughly follow my rules. The guy that bets and gets called usually bets again. And the guy that gets raised usually calls.

2. **The variance is massive.** Whenever I teach my students about the frequency-based play I advocate in this book, one of the first reactions is, “I can’t play that way. My variance will skyrocket!”
Yes and no. Yes, if you play against opponents who also understand these rules, the variance is indeed huge. If all players are constantly betting and calling, then you're playing a ton of big pots with small edges. That spells huge variance. You can't expect to play $5-$10 no-limit on the Internet or higher without a very, very healthy bankroll.

But ignoring the rules and folding too much isn't going to solve the problem. It's just going to lock in your losses against elite competition. When you're getting owned every other hand, no bankroll is big enough.

But no, if you follow the rules against lesser competition, your variance won't balloon out of control. There are two reasons. First, your win rate will go up a lot. A strong win rate goes a long way to mitigate potential downswings. Second, you will find that your opponents fold way too much. This keeps your variance down. The variance really comes when you're playing frequent big called pots. But as long as your opponents are giving you too many pots, the variance stays closer to what you're used to.

In fact, if you're used to playing too many hands preflop (something I'll go into in the next section), you may not see your variance go up at all. You'll just boost your win rate by cutting out the fishy preflop hands and investing your action in a smarter way.

3. **You can break the rules, but only after your opponent has broken them first.** Even then, break them only when you are pretty darn sure you know what your opponent is up to. The way I break the rules most often is to fold to large turn and river bets from opponents who don't bluff often enough. It's a frequent folly for players to make big
turn and river bluffs often enough. Against these players, you can safely cheat and fold to the big bets.

But (and it’s a big but), it’s very easy to think you know what your opponent is doing, cheat, and get yourself owned because your opponent is less predictable than you thought.

A high-stakes example of this error occurred on the 2013 World Series of Poker Main Event final table in a hand between Jay Farber and J. C. Tran. Tran opened the pot for nearly the minimum. Farber made a small 3-bet. Tran made a small 4-bet. Farber then made a small 5-bet. Farber’s 5-bet had committed half the effective stacks, and Tran was getting roughly 5-to-1 to call and close the action preflop.

Tran folded AQ off suit. The only way folding makes sense getting 5-to-1 is if Tran thinks Farber has AA most of the time.

Farber had 66. Tran broke the rules in a big way by making a fold in a situation where he’s compelled by the math to call almost always. Presumably he decided he could break the rules because Farber would 5-bet only with AA or perhaps occasionally something else. But this read, as it turned out, was wildly incorrect.

4. **You never have to break the rules.** Say you somehow were granted knowledge of the perfect mathematical solution to no-limit hold’em. You could then fire up 100 tables, play with no HUD, make no reads at all, and absolutely dominate. This is the nature of a mathematical solution. It’s unbeatable (over the long term) no matter what your opponents try to throw at it.
Take tic-tac-toe for example. You don’t need reads to play that game in an unbeatable way. There’s a perfect strategy, and as long as you adhere to that strategy, you can only win or draw. You will never lose. It doesn’t matter how your opponents play.

Poker is a much more complicated game, but also it’s much the same. If you are playing the perfect strategy, reads are completely unnecessary. You just play your game, and your opponents beat themselves.

The entire read-based, psychological aspect of the game just represents our human attempt to take a shortcut past the complicated mathematical problem. And, for that purpose, it’s still worthwhile to make reads and act on them.

But it’s much more important to try to think about what your frequencies should look like and adhere as closely to them as you can. You never have to break the rules to be a good poker player. It is much, much better to never break the rules and miss a few opportunities than it is to break the rules a lot and risk being wrong too often.

If you want to play like the 1%, you have to break down the way you currently play no-limit hold’em and rebuild your game from a frequency-first perspective.
Build Your Pyramids From The Ground Up

This is an ideas book. I don’t want to get bogged down in the numbers. There are two reasons for that. First, the ideas are much more important than the specific numbers. Just understanding the concepts can make you a much better player even if you never work through the precise numbers. Second, the numbers are always changing based on how the variables change.

Here’s a quick example. Rule one says that if someone bets, you should usually call. But how often, exactly, is “usually”?

Let’s say someone bets $60 into $60 on an A-8-5 board.

![A 8 5]

You’re in position. Maybe you can work through the math and decide that, in this scenario, “usually” means 72 percent of the time.

What if the bet is $50 into $60 instead? Well, that 72 number should go up, since you’re getting better odds.

What if the bet is $30? It goes up even more.

What if you’re out of position rather than in position? That drops the number slightly, since you will be at a positional disadvantage throughout the rest of the hand.

What if the board is 8-6-2 instead of A-8-5?

![8 6 2]

That pushes the number up if you’re in position and down if you’re out of position, because the new board is more positionally sensitive than the old board.
Already we have too many numbers, and we're just talking about one street in one hand.

What do the players in the poker elite do with their study time? Many of them spend the time trying to nail down the numbers. They try to fine tune their frequencies in the most important situations. And they also try to fine tune their hand selection for each part of their range. The 1% already understand the concepts in this book, and they spend their study time trying to put these concepts into practice as perfectly as possible.

I view calculating the numbers, therefore, as an independent exercise. Once you get the basic idea, you can do the grunt work of fine-tuning frequencies on your own.

That all having been said, I'm going with 70 percent. From now on, “usually” means “roughly 70 percent of the time.” If someone bets, and I say you should usually call, I mean you should fold no more than 30 percent of the time. You can call, or you can raise, and together those should add up to roughly 70 percent of your actions.

It's a good rule of thumb number that's generally, based on how most people play this game, in the vicinity of the right number. It's a number that's there just to help you to visualize what all this frequency stuff looks like.

You can build a pyramid out of 70 percents. It looks like this:
Each level represents the hands that make it through a betting round. So the base represents the hands you play preflop. The next level represents those hands that make it through the flop betting round. The level after that represents the turn. And finally the top represents the hands that make it through river betting.

If you’re playing a strong strategy, the slope of the sides of your pyramid will be smooth. That is, each time you move up a level, you lose a similar percentage of hands (i.e., roughly 70 percent survive with each new level).³

³ My math-inclined readers will note that the sides of my pyramids should be exponential, not linear. Bam. You got me. But you try to draw a pyramid with exponential sides. It looks funny.
This pyramid represents the hands you keep calling with if your opponent keeps betting at you. It also represents the hands you keep betting with if your opponent keeps calling. It’s both.

The key to both strategies—calling strategy and betting strategy—is that you don’t leave many jagged edges. You don’t want to leave many situations where your opponent can fire one more bet and know that you’ll fold more than half the time. Likewise, you don’t want to leave many situations where your opponent can call once and know that you’ll rarely fire again. Your strategy is strongest when the wall is nice and smooth from bottom to top.

This is nothing more than a visual representation of my two rules. If you call once, you’re usually calling again. If you bet once, you’re usually betting again. From preflop to river, there’s no point where you give up more often than any other. It’s smooth all the way up.

**Playing Too Many Hands Preflop**

Now that you’ve seen the basic pyramid, I’ll show you the pyramid problems that plague 99 percent of no-limit hold’em players.

First, we have what happens when you make the nearly ubiquitous mistake of playing too many hands in 9- and 6-handed games.
Your base level becomes too wide. This is an unfixable problem. Fundamentally, you have too much junk in your pyramid. The junk has to go somewhere, and wherever you put it, it hurts you.

People try to dispose of the junk in different ways. The above pyramid illustrates a classic fit or fold player. All the junk goes on the flop. This is the guy that says, “I don’t mind playing a hand like 96 suited preflop. I have the discipline to fold it if I don’t hit something big on the flop.”

Sorry, man. That’s not good enough. The pyramid has a huge hitch between the preflop and flop levels. This guy couldn’t be easier to beat. I can just bet 100 percent of flops for half-pot and crush him. If he makes it past the flop, we play square from that point on. But meanwhile he’s just handing me all those preflop bets he put in with junk.

Or, as I mentioned before, I don’t have to alter my flop betting strategy at all to beat this guy. I can just follow my rules. He beats
himself with his distorted flop folding frequency. He gives up too many pots on the flop and doesn’t make up for it anywhere later in the hand.

Other players have different strategies to deal with the junk. Here’s another doozy.

This guy maintains his 70 percents all the way through to the end. His sides are smooth. But his top is wide open. This is your classic loose-passive opponent who calls to the river with second pair. He starts with way too many hands and he never gets rid of them. He just takes them all the way to the end.

When you hear people complain about these guys, “You can’t beat them, they never fold!” you’re hearing legitimate complaints. These guys play with smooth sides, which is indeed the hallmark of a tough strategy. Before the showdown, there’s no easy place to attack them. But at the very end of the hand, they show up with
second pair at showdown in a 200 bet pot, which is ultimately the biggest vulnerability there can be.

These folks are rare these days. They are also the only players the slot machine strategists can actually beat consistently. By golly, if you make a flush against one of these opponents, you're likely getting paid. But most games you play in these days won't have anyone who plays like this. Ten years ago? Sure. But not today.

That's the analysis if the above pyramid represents calling. If the above pyramid represents betting, then you have a hyper-LAG type. This is the player who plays a ton of hands and doesn't stop firing even if you call once or twice. Again, you hear the same complaints about this sort of player, “You can't read the guy. He can have anything. What are you supposed to do about that?”

The complaints reflect again the smooth sides of this player's pyramid. There's no obvious place to bail from a marginal hand against this player. The weakness of the hyper-LAG strategy reveals itself only at showdown. To beat someone playing this way, you just have to play your normal tight game preflop and make sure you obey my rule about calling most bets most of the time. If you do that, the hyper-LAGs beat themselves.

There are other pyramid permutations that proliferate among players who play too many hands. This one is popular among many live regulars (including live professionals).
In this case, you have players abandoning their bad hands on the turn. They fold too much to turn bets, and they don’t barrel the turn often enough after their flop bets get called.

But no matter how you try, there’s no way to get rid of those extra hands gracefully. If you play too many hands preflop, you must either have a misshapen pyramid or one with an open top. Wherever the flaw is in your pyramid, your strategy is vulnerable.

**Inappropriate Reactions To Board Texture**

Another common way that 99 percent of no-limit hold’em players butcher their pyramids is that they react inappropriately to different board textures. My two rules hold without qualification on most board textures. But most players react quite differently to various board textures.
A board like

prompts many players to warp their pyramids in the following way.

This is what I call a binary board. People zero in on that ace. Either you’ve got one or you don’t. No matter what your preflop hand range looks like, more often than not you won’t have an ace. Lots of players overfold on flops like these when they don’t have an ace. But once they get past the flop, their range is rich in aces, and they don’t fold nearly as easily on the turn.

Or if they bet the flop and get called, without an ace they give up too often on the turn.

The emphasis on the ace is overdone. Sure, it’s the most important card on the flop. No doubt about it. But the math doesn’t fly out the window just because there’s an ace on board. If someone bets
half pot, you need to call most of the time. On a flop like this one, it means that you’re frequently calling without an ace.

Likewise, you don’t bet all your hands on the flop and then give up on all the ones without an ace on the turn. The math says you need to keep betting most of the time after you get called on the flop. So to close that gap in your pyramid, you check some of your non-ace hands on the flop, and you bet some of them on the turn.

Now here’s another board. It’s one of my favorites.

On this board, people’s pyramids often look like this.

On this flop, everything from AQ to 64, KQ to 65, KT to 85 catches a piece. But on many turn and river run outs, most of these hands don’t get there. This makes people predictably want to stick around early but give up late.
And the run outs where hands get there are obvious—ones involving jacks, tens, and eights mostly. Again, most players allow their pyramids to get warped by the board texture because they are looking at hand strength first and ignoring frequencies.

Any time your opponent plays with a warped pyramid like one of the above, their frequencies will be out of whack at whatever point in the hand the pyramid is warped. If you know to look for it, these points offer vulnerabilities for you to exploit. These are the critical spots in poker games, the places where you can put your money and create an edge for yourself.

Let’s go through a simple example using one of the above boards to show you how this pyramid model translates to the play of actual hands.

It’s a $2-$5 game in Las Vegas played with $500 stacks. Two players limp in, and you have AsJs on the button. You raise to $25. The blinds fold, and both limpers call.

<table>
<thead>
<tr>
<th></th>
<th>Action:</th>
<th>Hand:</th>
<th>Starting Stack:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP1</td>
<td>Player</td>
<td>Call/Call</td>
<td>$500</td>
</tr>
<tr>
<td>Cutoff</td>
<td>Player</td>
<td>Call/Call</td>
<td>$500</td>
</tr>
<tr>
<td>Button</td>
<td>Hero</td>
<td>$25</td>
<td>Covers</td>
</tr>
</tbody>
</table>

The flop is the Qh9s6h. There’s $82 in the pot and $475 behind.

Both players check to you, and you bet $70. The first player calls and the second folds. There’s $222 in the pot and $405 behind.
The turn is the 2d. The first player checks, and you bet $160. He folds.

Consider all the hands he might play this way. He limps in preflop and calls a raise. Let’s say he could have any of the following hands:

- **JJ-22**
- **AJs-A2s, KQs-K9s, QJs-Q9s, JTs-54s, J9s-64s**
- **AQo-ATo, KQo-KTo, QJo-QTo, JTo-T9o**
This is fairly representative of how many not-so-great live regulars handle preflop play. This hand range represents 262 combinations, or 22.6 percent of all possible combinations. It’s a range that’s too loose to play from up front in a 9-handed game.

Now the flop comes.

![Q ♥ 9 ♥ 6 ♥]

Of the 262 combinations preflop, only 229 are now possible with the balance removed because they contained one of the board cards.

How many of these hands call a bet? It’s time to start guessing. Here’s my shot at it.

JJ-99, 66
A9s, A6s, KQs-K9s, QJs-Q9s, JTs-65s, J9s-64s, all suited hearts
AQo, KQo-KTo, QJo-QTo, JTo-T9o
By my count, that's 159 combinations left or 69.4 percent of the combinations that saw the flop. That's pretty close to 70 percent. Our theoretical opponent was too loose preflop, but his strategy on this flop is pretty solid.

Now for the turn. It's the 2d making a board of Qh9s6h2d. Since the 2d wasn't in any of the 159 combinations he holds on the turn, he's still got 159 combos. How many of these combos does he call a big turn bet with? Let's take another shot at it.
99, 66
KQs, QJs-Q9s, JTs-87s, T8s, all suited heart hands
AQo, KQo, QJo-QTo, JTo
54% calls
46% folds

Sets

Under pairs + draw

Top pairs

Open Straight Draws

Flush draws

Inside Straight Combo Draws
This estimate is generous to our opponent. I know many $2-$5 regulars who would fold many of these hands, especially Q-J, Q-T, the straight draws, and some of the flush draws. But let’s go with this for now.

He’s at 85 combinations. That’s just 53.5% of the combinations he held on the turn. Not enough! He’s overreacting to the blank card on the turn by folding too many hands. Candidate hands he shouldn’t be folding would be some of the gutshot draws and nines. (These hands might be good to bluff-raise with.)

And, remember, I said I was generous to our theoretical opponent. Many regs are folding even more frequently on this turn card.

Indeed, our theoretical opponent in this hand has three major problems. First, he’s playing too many hands to begin with. Second, he’s damaged his range by limp-calling preflop with most of his hands but not with AA-QQ or AK. This causes him to have trouble finding enough hands to call with on the turn and river whenever he’s limp-called preflop. Third, he’s overreacted to the board texture by ditching too many hands on the blank turn card. Had the turn come a ten, he would have played a more acceptable percentage of hands against the bet.

**Final Thoughts**

I like this pyramid analogy for no-limit hold’em strategies. It gives you a simple picture of what a solid strategy looks like, and it makes flaws in strategy—which are really flaws in frequencies—immediately apparent. If you find yourself struggling against any particular types of opponents, try to draw pyramids for them. Draw calling pyramids and betting pyramids. If you believe they are playing too many hands preflop, when do they get rid of the extra hands? Where is the flaw in that smooth pyramid side? If you find that flaw, you’ve found the flaw in the strategy, and you know where you should be investing your money.
That’s cool. That’s why I published this excerpt. But I wanted to point out that this book is clearly worth your time. And if it’s worth your time, it’s also worth buying.

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Poker Pyramids Branch

As you may have figured out by now, the pyramid representation is somewhat limited. It fairly represents hands where one person carries the initiative through from the beginning of a hand to the end. One player raises preflop and bets postflop. The other player calls.

But when the initiative changes hands (or could change hands), the pyramids branch in two. One pyramid represents what the strategy should look like if the player keeps the initiative. The other represents what should happen when the player loses initiative (either by checking or by getting raised).

For example, say you raise preflop. I gave you a pyramid in the last chapter that should overview your strategy if your opponent calls you.
But what if your opponent 3-bets you instead? Now you’ve lost the initiative. This is no big deal. Your pyramid has just branched, and now your strategy is represented by a calling pyramid.

The overall strategy points are unchanged. After you get raised, usually you call (rule number 1). Then with each successive bet, usually you call (again, rule 1), creating a strategy pyramid.

Pyramids can also branch because you have chosen to take the initiative from your opponent by raising rather than calling. So far, I’ve lumped calling and raising together in my pyramids. Implicit in my rule, “If your opponent bets or raises, you should usually call,” is that some of those calls you make can be raises instead. It’s the frequency of calls-plus-raises (i.e., not folds) that matters the most, with the breakdown of calls versus raises being of secondary importance.

So far, raising and calling have been lumped together. However, raising is a critical strategic element, and it branches your pyramid.
Let’s say an opponent has raised preflop from three off the button. You are sitting on the button. In this situation, you will call sometimes and 3-bet sometimes. If you call, you start on a calling pyramid. If you 3-bet, you start on a betting pyramid.

If you call preflop and your opponent bets the flop, you get another opportunity to branch your pyramid on the flop. You can call or you can raise.

Whenever you branch, you must maintain two separate smooth pyramids. If you flat call preflop, you must choose a set of hands to do this with such that you can maintain a smooth pyramid thereafter. This is also true for the times you reraise.

This means that you don’t want to put all your good hands in one pyramid and leave the other pyramid with junk.

For instance, some people design their 3-betting range preflop in this situation to include every good hand they can think of. All
pairs eights and higher. All ace-kings and ace-queens. Premium suited hands such as ace-jack, ace-ten, king-queen, king-jack. And then they add some light 3-bets too with hands such as queen-three suited.

The problem with this strategy is that it makes it very difficult to maintain pyramids after flat-calling preflop. If the flop comes ace-high, the flat-calling player cannot have either ace-king or ace-queen. Assuming the other player can have these hands, as the caller it becomes very difficult to maintain roughly 70 percent calling frequencies on all streets. Similarly, on low flops it is impossible for the flat-caller to hold an overpair, which again makes it difficult to call three streets with the appropriate frequencies.

Whenever your pyramids branch, ensure you have candidate hands to call all streets in each pyramid. For example, when you are deciding whether to flat-call the button or reraise against an early opener, keep some combinations of hands such as QQ, JJ, AK, and AQ in your flat-calling range. These will be your candidate hands to call three streets. Obviously, the board may shift the hands you choose to call down with, but you want to seed your hand range with strength.
If you’re new to this frequency-based pyramid thinking, it can seem incredibly daunting at first. It can be hard to branch in two while maintaining balance on both sides. Your goal shouldn’t be to be perfect at this out of the gate.

The first steps you take toward this goal are the most important. Let’s say you raise preflop and get called by the button. The flop comes

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9 5 2

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Instead of betting all of your overpairs, check a few. This spreads the strength out between your betting pyramid and your check-calling pyramid.

Which ones to check? This isn’t so important, though I would likely tend to check KK and QQ most frequently while tending to bet AA, JJ, and TT. (JJ and TT are more vulnerable to overcards...
than KK and QQ, so I'm going to bet them for protection. AA has so much equity that I want to bet it because frequently I'll be betting all three streets with it.) Similarly, I might bet 55 and 22 but check-call with 99. I want to make sure my calling pyramid is seeded with a few hands that I'm likely to want to call three streets with. Weaker hands can fill in to smooth out the pyramid for one- and two-street callers.

On average, of course, the hands that start off in your check-calling pyramid are weaker than those in your betting pyramid. You just don't want them to be so weak that it's impossible to find enough hands to call with on each street.

This must be true every time your pyramid branches. That is, whenever you feel like you want to raise a chunk of hands (except when a call closes the action at showdown), you should likely hold back a few marginally raise-worthy hands and just call with them. These held-back hands form the core of your calling-and-raising range on the next street.
The Big Exception

There’s one big exception to the concept of maintaining smooth pyramids. Whenever pot odds differ significantly from one street to the next, your pyramids will be rough for that round. A common example of this exception occurs between preflop and the flop when you’re defending your blinds.

Say you’re playing $5-$10. Everyone folds to the button who raises to $20. You call from the big blind getting 3.5-to-1. There’s $45 in the pot after you call.

The flop comes however it comes. You check, and your opponent bets $40 into the $45 pot. You are not obligated to call 70 percent of the time. Why not?

It’s because of the drastic difference in the pot odds between the preflop round and the flop. You were getting 3.5-to-1 to call preflop. On the flop, you’re getting just a hair better than 2-to-1. The fantastic preflop odds demand that you call with most of your hands. The postflop odds, however, require that you trim your pyramid by quite a bit. If you tried to maintain a 70 percent calling range, you’d be carrying forward too much junk that you (correctly) called with preflop.

Once you trim your range to this flop bet, your pyramid should be smooth from then on. You should be calling the turn roughly 70 percent of the time and the river roughly 70 percent.

The big picture of this exception is that it’s correct to call small bets (as a percentage of the pot) with those hands that you plan on folding to a bigger bet on the next street. This is true even if you think that bigger bet is coming.

Players get this wrong all the time and fold too frequently to small-sized bets in many situations. I see two reasons for this problem. First, players rely too much on absolute hand strength to make
their decisions (as opposed to the frequency-based approach I recommend). In this paradigm, hands below a certain strength aren’t worth calling for any amount, and the player folds them no matter how small the bet. The math says that calling frequencies should vary with the pot odds offered, but most players have a set of hands that they’re folding no matter what.

The second reason for this is one I alluded to above. Players get suspicious of the small bet, as they assume a larger bet is coming on the next street. They don’t want to get milked for the small bet and walk into a bigger one, so they try to outsmart the situation by folding to the first bet.

The math says that this attempt to outsmart the situation backfires. Let the big bet come. You’re allowed to fold a lot to a big bet after a small one. As long as you make sure you check-call the small bet with some hands that are locks to call the big bet, you’ll be fine. It’s much worse to allow someone more leverage than they’re entitled to by folding to small bets without actually forcing the player to put up the big bet. Often, you will find if you call these small bets, the big bet never actually comes.

The limit of this exception comes when you get a free flop from the big blind. Say two players limp, and you check your big blind. Here you have a nearly 100 percent range of hands to start. (It’s less than 100 percent because you have a raising range.) If your opponent bets the flop, you’re allowed to fold more than half of your hands. Because you got effectively infinite pot odds on the previous round, your pyramid will have a sharp jog on the flop. Of course, thereafter, your pyramid should be smooth as always.
The other exception to the rule of maintaining smooth pyramids is also not really an exception to the underlying math. You might have been wondering, “Gee, what do I do with the hands that fall off my pyramid on the flop or turn or river?” The answer is a superficial exception to the pyramid principle.

Let’s say you raise preflop and get called by the button. A flop comes. You bet, and your opponent calls. The turn comes. You decide that you have one of the roughly 30 percent of hands that you will bet on the flop, but check on the turn. You check. Your opponent bets. What does your strategy look like now?

In this situation, you are allowed to fold significantly more than 30 percent of the time. Why? Because as you’ll find in later chapters, many of these hands you stop betting will be bluffs that aren’t panning out. It makes no sense to check and call with 70 percent of your (mostly) busted bluffs. By calling on the flop, your opponent has essentially paid for the privilege of betting you off your busted bluffs when you give up.
Contrast this situation with one where your opponent raises preflop and you’re the one calling all the way. In this case, your opponent can be betting two blank cards, and if you fold too much he profits.

However, if he calls you on the flop with two blank cards, and you obey the rule of betting 70 percent of the time when called, he cannot call you on the flop with the hope of betting when you check on the turn. Since you usually bet, he pays too much when his flop calls don’t work out. To justify floating the flop, he must have some hand value to go along with the chance to bet you off your bluffs on the turn.

This is as it should be.

Of course, you won’t be folding every time in this situation either. Some hands you have when you bet flop and check the turn will be value hands that aren’t so strong anymore after the turn card. These are frequently hands you will check and call. You can also spike your turn checking range with a few stronger hands that you plan either to check-raise or check-call.

The main point is that when you bet the flop and check the turn, you won’t be calling your opponent’s turn bet 70 percent of the time, and that’s ok. You’ll be calling sometimes. (And you’ll still be calling your roughly 70 percent on the river after you call the turn.)
The Small Exception

The last section outlined the big exception to the basic idea that your calling frequencies should be roughly equal from street to street. When the pot odds offered on the streets differ drastically, your calling frequencies should also differ significantly.

Now here's another smaller exception. Again, this exception doesn't break the math, but instead is a feature of it. The frequencies I have quoted so far are the ideal frequencies averaged over all possible cards. That is, if you call a pot-sized bet preflop and your opponent makes a pot-sized bet on the flop, you should be planning to call roughly 70 percent of the time averaged over all flops.

But some flops will be better for your range than others. Some flops, for instance, privilege position more than others. If you are out of position, you will tend to have lower calling frequencies on these flops. You make up for the lower frequencies with higher calling frequencies on less position-sensitive flops.

For example, assume that you raised preflop, bet the flop, and bet the turn. One player with position on you called along. In this situation, occasionally the worst river card in the deck will hit. You are no doubt familiar with the phenomenon.

You are not required to maintain your 70 percent betting frequency on this card. You get to quit with many more hands than that because this is the very worst outcome for you, and it is a rare one.

When you catch good, you'll be betting somewhat more frequently than average, and when you consider all possible river cards, it averages out to the roughly 70 percent number (or whatever number may be appropriate).

So when you're thinking about frequencies, it's completely fair to ask first, “Is this card better or worse for me than the average
card?" When it’s worse, you can fold or give up on a higher percentage of hands. When it’s better, you usually keep on coming.

The vast majority of flops, turn cards, and river cards, however, are not going to change the dynamics so dramatically that you will adjust your frequencies too much. This little exception is mostly just something to keep in mind when you feel like you’ve caught the worst possible flop or card. When that’s the case, you’re allowed to let it stop you in your tracks.
THAT’S IT

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