Hand-Reading and Exploitive Play in Hold'em




Owen Gaines

# Hole Card Confessions 

Hand-Reading and Exploitive Play in Hold'em

## By

Owen Gaines

## Hole Card Confessions <br> Copyright © 2010 by Owen Gaines <br> Published by Owen Gaines

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means without written permission from the author.

To request to use any part of this book in any way, write to: owen@qtippoker.com

To order additional copies, visit www.qtippoker.com

ISBN-13: 978-0-615-42531-3

Printed in the United States of America

Edited by: Jack Welch (jackdogwelch@yahoo.com)

## Table of Contents

Acknowledgements ..... viii
About Owen Gaines ..... x
About This Book ..... 1
Introduction ..... 3
Quiz ..... 7
Information ..... 9
The Information War ..... 9
Different Environments ..... 15
Your Hole Card Confessions ..... 16
Levels of Thinking ..... 17
Get in Their Head ..... 19
Summary ..... 20
Quiz ..... 21
Player Types ..... 23
Reasons for Playing ..... 23
Player Types ..... 24
How to Categorize Players ..... 27
Learn How Categories Think ..... 32
Quiz ..... 33
Range ..... 35
Range Review ..... 35
Shaping a Range ..... 37
The Shape of a Range ..... 40
Quiz ..... 46
Eagle Eyes ..... 47
Specific Notes ..... 47
DST ..... 54
Examples of Notes in Action ..... 55
Quiz ..... 59
Enter Steal Equity ..... 61
Two Ways to Skin a Pot ..... 61
General Relativity ..... 69
At the Table ..... 70
Open Limping ..... 73
The Bread and Butter. ..... 75
Quiz ..... 75
Exploiting a Range ..... 79
Relativity Strikes Again ..... 79
Cumulative Information ..... 79
Range Responses ..... 81
Quiz ..... 103
Advanced Concepts ..... 105
Against the Level 1 Thinkers ..... 105
Against the Level 2 Thinkers ..... 108
Leveling Wars ..... 111
Implied Odds ..... 112
Paying for Information ..... 113
Dealing with Unknowns ..... 114
Understanding the Impact of Aggression ..... 116
Quiz ..... 118
A Field Trip ..... 121
What Now? ..... 155
Working Away from the Table ..... 155
It's a Process ..... 156
Quiz ..... 157
Quiz Answers ..... 159
Introduction Quiz Answers ..... 159
Information Quiz Answers ..... 160
Player Types Quiz Answers ..... 161
Range Quiz Answers ..... 163
Eagle Eyes Quiz Answers ..... 164
Enter Steal Equity Quiz Answers ..... 165
Exploiting a Range Quiz Answers ..... 169
Advanced Concepts Quiz Answers ..... 171
What Now? Quiz Answers ..... 172
Glossary ..... 175
vii

## Acknowledgements

Throughout my years of learning to play poker well, I've participated in many poker forums like those at dragthebar.com. The help I've received in poker forums has been invaluable and has played a huge part in making me the poker player I am today. A great thanks to all my poker friends who have helped me think about hands in different lights and explore different options in a hand.

## About Owen Gaines

I was always a bit fascinated with poker. I had read a small book or two about poker long before I got a chance to play the game. Then, in 2004, a friend told me I could play poker online. I decided to check it out. I knew little about poker at that point, but I bought a lot of books on Limit Hold'em, joined a poker forum, and began to work very hard learning the game. I deposited $\$ 300$, but I lost that rather quickly in the $\$ .50 / \$ 1$ Limit Hold'em games. I decided to give poker one more $\$ 300$ attempt. That one stuck. The hard work began to pay off and I built a nice bankroll for the Limit Hold'em games. Since my hourly rate playing poker was double that of my entry-level, nine-to-five job, playing poker professionally seemed the best option for me. So, I became a professional poker player in the summer of 2005. From there, I played about a million hands of Limit Hold'em and experienced good results.

In early 2007, after a short break from the tables, I set aside $\$ 300$ to explore No-Limit Hold'em. Never really interested in NoLimit, I had heard good things about that form of poker. Fortunately, my limit experience helped me easily transition to no-limit. I started playing a lot of no-limit and worked my way up the stakes. I found I really enjoyed playing no-limit. In five months, I turned the $\$ 300$ into $\$ 30,000$ and have been playing No-Limit Hold'em as my main game since.

As I write, I have played approximately three million hands of poker. Playing professionally for over five years, I provide the sole income for a family of five. Online poker suits my family's lifestyle well; my family and friends have all adjusted and become supportive.

I've always enjoyed teaching and have taught in several different fields. In early 2009 , I started offering personal poker coaching and making poker-training videos for dragthebar.com. I've had a great time helping others develop their poker skills. It's my sincere hope that players will improve their poker game from my efforts in this book.

## About This Book

At one point or another, we have all been told practice makes perfect. However, my straight-laced piano teacher was quick to offer a caveat. "Perfect practice makes perfect," she would preach to me. Oh, how right she was.

Experience gained playing poker is obviously a huge part in developing a more robust, profitable poker strategy. However, if my piano teacher were still here, she'd tell you merely sitting down mindlessly putting in hands at the table will not take you very far. Every time we come to the table, we need to come with purpose in mind. However, many players - even the most experienced players - simply can't define perfect practice at the poker table. These players are easily discerned at a table. Their eyes are wandering to TVs after they've folded a hand preflop. They fail to understand they are swimming in a pool of information that can make them mountains of money. But, hey, "You don't know what you don't know," I always say.

If poker is a battle for information, what information am I looking for? How do I find it? What do I do with this knowledge once I've found it? I'll answer these questions and more from the experience I have gained over 3 million hands of analyzing opponents of every variety. That experience gained over that number of hands allows me to make incredibly accurate assumptions about the strategies of different opponent types. This knowledge is one of the most valuable things I can offer other players; it puts them on the fast track to becoming handreading experts.

With this information and some experience, you'll often find your opponent's hole cards are speaking volumes. It's just a
matter of tuning your ears to their frequency. Once you're tuned in, you will have obtained a key ingredient needed to become a force at the poker tables.

Because poker is full of jargon, many times beginning players quickly get lost when reading a poker book. To avoid this, every time I introduce a term I consider poker jargon, I will put the font in bold, so you'll be able to look up that term in the glossary at the back of the book.

Throughout this book, you will see hand notations for hole cards. When you see an "s" at the end of the hand (like 67s), this indicates the hand is suited. When you see an "o" at the end of the hand (like 67o), this indicates the hand is offsuit. If neither letter is present after the hand, this means both suited and offsuit hands are included. I use a similar notation when describing the community cards. KTs2 would be a flop where the K and T are the same suit and the 2 is a different suit. When you see a " + " after a hand (like TT + ), it indicates that hand and every other stronger hand type. So, TT+ indicates a pair of Ts, but also every pair higher than that (JJ, QQ, KK and AA). AT+ indicates AT but also every other non-pair A holding with a card higher than a T (AJ, AQ, AK). Also, I like to use the term "Villain" to describe an opponent in a hand. So, of course, that makes each of us the "Hero". I always use the male pronoun when speaking of a villain. This is simply for ease of writing and implies no disrespect to all the female poker players in the world.

I'm also a firm believer in testing your comprehension of the material presented. To that end, you will find a quiz after every section. Take your time; make sure you understand the material before moving on. The better you grasp the concepts, the more readily you'll be able to apply those concepts in real-time at the poker table.

## Introduction

In 2010, I published a book entitled Poker Math That Matters. I started that book by introducing the two keys to good poker. Because that book focused on just one of the two keys and this book focuses on the other, I'm going to include the same concept for this book's introduction as well.

Poker is a seemingly simple game on its surface. Yet, as discovered by many people coming to the game, poker is actually quite complex. However, every complex decision in poker can be distilled to just two things, the two keys to good poker. So, without further ado, here are the two keys.

1. Accurate assumptions
2. Making the best decision

So simple and yet this really defines the decision process for players. The concept is the foundation of anything I do with poker. More importantly, it will help beginners and experts alike put the game in perspective, create goals and analyze poker situations.

Let's begin by defining these two keys. First, let's look at accurate assumptions. I find it easiest to divide assumptions into two sections. One concerns our opponent's range of hands, and the other considers how he will play that range ${ }^{1}$. This key uses inductive reasoning to determine an opponent's likely hands. Players like to call this "hand-reading". This key also uses

[^0]inductive reasoning to predict what decisions (like betting, calling or folding) the opponent will make with those hands. These predictions are, of course, the focus of this book.

The second key is making the best decision. We'll simply say this key involves making the decision that makes the most money. After we've determined our assumptions in the first key, the second key comes along with mathematics to show us what play is most profitable on average.


Figure 1. How the two keys to good poker are improved.
Let's talk a bit about how to develop these skills. Take a few seconds to examine Figure 1. Notice that developing accurate assumptions is mostly improved through playing experience, while making the best decision is primarily improved via work away from the table. In Poker Math That Matters, I discussed why understanding how making the best decision is the most important key for a beginner to develop. If you are not able to
use the mathematics of poker to analyze poker hands, then you're certainly going to want to get Poker Math That Matters and remedy that problem ${ }^{2}$. The player who understands the math behind good poker will always have an advantage over the player who does not. However, this book is now moving on to the other key, accurate assumptions.

Again, in Poker Math That Matters, I stated in real poker all the hand-reading in the world will do you no good if you do not know what to do with the information gained. However, if you have no assumptions to which to apply the math, you are equally ill-equipped to play good poker. Notice in Figure 1 accurate assumptions are mostly improved through playing experience. I could more specifically have said observant playing experience.

After playing millions of hands and analyzing tens of thousands of players, I've been able to develop incredibly accurate assumptions about my opponents' strategies. Sometimes when players are in a hand, I'm able to declare what they have before they expose their hole cards. The information I've been able to gain to that point allows me to deduce their holding with incredible accuracy, almost as if the hole cards had telepathically confessed to me the secret of their identity. Observers often are struck by this ability as if it's a magic trick. However, I'm convinced this skill is something everyone can develop as they gain experience observing other people's play.

I've given personal coaching to dozens of students now. One of the most valuable things I offer is my understanding of players

[^1]and the assumptions I'm able to make about them during their play. My goal is to give this information to you as well.

When compared to the objective methods using the mathematics of poker, accurate assumptions are far more subjective.
Individuals may disagree about their assumptions regarding a player's strategy, and each may have good reasons for feeling the way he does. There's really nothing to be done about this disagreement. I often frequent forums where players are discussing a given hand. The one who submitted the hand simply asks "What's the best play here?" Not understanding the two keys to good poker, they may think there's a one-size-fits-all answer. Certainly there is not. If we had the opponent's strategy, there would be no discussion to be had. We'd simply plug in the numbers and we'd ascertain the best play. Given different strategies from our opponent, the math may give us a different best play.

So, the discussion needs to begin with our assumptions regarding the opponent's play. For this reason, my first question to the one who submitted the hand is "What information do you have about your opponent?" From there, we can begin to make assumptions about his strategy. Yet, many times players will still vehemently disagree about the best decision in a hand. They simple differ on their assumptions of the player's strategy. And again, there's little to be done about that. They'll simply have to agree to disagree and be on the lookout for further information that might show them perhaps one of their assumptions of that player's strategy needs to be tweaked a little.

The hole cards in Hold'em introduce an unknown aspect to the game. An unknown factor often creates a situation where more time is needed for the more skilled player's edge to be realized over the lesser skilled player. When we develop strong hand-
reading skills, we peel away that unknown factor and allow a greater, more quickly realized edge to evolve.

There's no magical key or moment when you suddenly have the ability to have a firm grasp on your opponent's strategy. It's a process of understanding the information you can use, how to gather it and how to interpret it. You take one piece of information at a time and then build on that with another piece and so on until you have a vast tool chest to use.

So, without further ado, let's begin tuning your ears to hear the hole card confessions.

Quiz
(Answers on pg. 159)

1. What are the two keys to good poker?
2. Into what two sections can we break up accurate assumptions?
3. Which of the two keys to good poker is developed mostly through playing experience?
4. Even though beginners should be certain to focus heavily on understanding the mathematics of poker, why is developing accurate assumptions also vitally important to begin to develop?

## Information

## The Information War

I remember a particularly great session I had playing poker online. The poker site allowed a user to show their hole cards after a hand was over. I was sitting at a heads up, No-Limit Hold'em table waiting for someone to join me. Soon a player sat down, and we began our match. Immediately after the first hand, he exposed his hole cards. I thought "Well, thank you very much." Then he did it again the second hand, third, fourth and so on. He showed me his hole cards every time! In about three minutes, I had developed such a good sense of his strategy he was going to have to get very lucky to beat me. Even if he did get lucky and take some money from me, if he sat there long enough, he simply had no shot at beating me. This player had no idea he was sorely losing one of the biggest battles in the poker war, the battle for information.

It's been said poker is a battle for information, and I couldn't agree more. Every player needs to gain as much information as they can about their opponent and conceal as much information as they can from observant opponents. Information is the key to developing accurate assumptions. Every poker table, whether live or online, is filled with spots to mine for informational gold. We just have to learn where to look. So, let's take a look at some of the key areas to find information. While this is not an exhaustive list, here's the places we'll discuss in this chapter.

## 1. Showdown hands

2. Exposed hands
3. Betting patterns
4. Frequencies
5. Physical tells
6. Listening
7. Timing tells
8. Meta game
9. Notes
10. Online tools

I'm going to briefly introduce each of these.
Showdown hands are one of the most valuable and reliable informational nuggets you'll be able to mine at the table. When hands go to showdown, usually we get to see our opponent's cards. This is a critical point in poker. We can then go back and think about every street in that hand and analyze all the decisions the opponent made throughout the hand. This is an extremely valuable way to gather information about our opponent's strategy. How does he play that type of holding preflop in different positions? How does he play that hand strength on the flop in position or out of position? You return to every stage in the hand and recall how he's interpreting his situation with that holding and what ensuing action he takes.

Sometimes our opponents show us their cards even though the hand didn't get to showdown. While not as valuable as showdown hands, this can still be very valuable information. One reason it's less valuable is we may not have seen every street of play. Perhaps the hand ended preflop, and he showed his cards then. Well, we didn't get to see his play on the flop, turn or river. Also, the information may not be as reliable in terms of actually comprehending his thought process. There can be different reasons why an opponent may show his cards. A player may show his cards simply because he's proud of a successful bluff or wants everyone to see what a big lay down he's making. In this case, the information may be just as reliable as a hand they had at showdown. However, some other reasons
they may show their hands can introduce an element of deception. They may be showing their hand to create an image they can use to their benefit later. For example, if a player shows a big bluff he made, he may now plan on not bluffing later in the game and simply showed that bluff in order to have people call his big bets later when he has a strong hand. So, we need to be careful with this type of information and try to understand our opponent's motive for showing his hand. A related piece of information comes when people fold but then they tell everyone what they had. Again, some opponents will often tell the truth here and others often will not. So, we have to be a bit careful with this information.

Betting patterns are another source of information. For example, some opponents will tend to bet small with a strong hand but bet large with a weak hand. Others will only bet large with a big hand and then bet small with a bluff. Sometimes there are reliable patterns to be perceived and sometimes there aren't. Some players fit this mold so well you can customize your play completely in response to their bet size.

Another way to gather information about an opponent's strategy is by observing frequencies. For example, imagine an opponent sits down at the table and you've never seen him play before. The first hand he raises preflop. You have no idea what this means about his range. For all you know, he could have AA or 72o. The second hand he raises preflop again. Then the third, fourth, fifth, sixth and seventh hand he is dealt, he raises preflop. Now, either this player is having a really hot streak of good starting cards or he plays a lot of hands and likes to raise preflop. Having a hot streak of premium starting hands is fairly unlikely, so we can start to make some assumptions he is likely raising many weak hands preflop, even though we have yet to see his cards.

Physical tells are certainly the most glamorized and popular way to gather information about our opponent's strategy. This is a skill you can gain when playing live poker. Perhaps someone's hands shake when he has a big hand or he gets very quiet when he's bluffing. While this information can be quite reliable and useful, it's only a small part of being able to gather information from our opponent which we'll then use to create assumptions about our opponent's strategy.

Many times, if you're listening, players will simply tell you their strategy. Perhaps someone at the table turns over QTo, and another exclaims "You play that from early position?!" Now you can be fairly certain that player doesn't play QTo from early position. On occasion, online, you'll unearth these nuggets in the chat box from players who enjoy chatting to others at the virtual table.

The speed in which a player makes his decision often reveals the strength of his hand. Variations in the pause needed to make a decision is called a timing tell. Even though physical tells are unavailable when playing online, you are still able to get timing tells. Sometimes a player will take longer to think about a given hand when it has marginal value or is very strong. They have to think about their decision. However, they may act very quickly if their hand is weak by doing something like checking very quickly, displaying a lack of interest in the hand. Many times when a player has a draw on the flop or turn, you'll find them act very quickly as well. They're probably not considering pot odds or implied odds. They're just going to see if they hit their draw on the next card almost regardless of the price.

Here's another example of using a timing tell. Say a player bets, then you raise, and he quickly folds. There may be a good chance he was betting a very weak hand because he didn't even have to think about whether or not to call or reraise.

In online play, a good way to gather information (or more precisely, store information) is note taking. In most online poker rooms, you can type notes about your opponent's play. In 2008 I played online poker with over 26,000 opponents. If I played 200 hands with some opponent in January and then never played him again until September, there's a decent chance I'd never remember him. However, if I've taken notes about things I've noticed about him, I have the information available as soon as he sits down again.

All the happenings at a table create what players call the meta game. This can include many different things. As an example, if a player has just received a couple bad beats, and he's obviously frustrated. We may recognize this and understand this player's range may be a bit wider now and he may be making more aggressive plays. Another example could be if you've just sat down at a table and receive a string of good hands which has you doing a lot of betting and raising. You may now want to be careful bluffing because players will likely see you as a looseaggressive player and decide to call you more often.

Online play also offers many tools unavailable when playing live. One powerful tool is a hand database with a heads up display (HUD). Poker Tracker is particularly popular. These software gather the hands you've played against your opponents and then display statistics about their play which you can use to create assumptions about their strategy. Other sites, like pokertableratings.com, do this gathering process on a massively large scale. You can type in an opponent's name and locate useful information about his playing style and whether or not he's been winning or losing. Most online poker sites also offer you the ability to review previously played hands, which can be very useful in gathering information about your opponent's play.

Another way we can gather information about our opponent is to put the players into classifications. Several different categories have been created into which many players fall. I'll discuss this more in detail later in the book, but the idea is once you've properly classified a player, it's likely he'll think about situations the same way as do others in that category.

As you can see, there are many different techniques to gather information to make accurate assumptions, and you may think of other ways as well. However, it's important to understand that this is not perfect information. There is always a margin of error in information we gain. For example, with the player voluntarily showing us his hand, he may be preparing to trick us later. When observing patterns, our opponent may truly be catching amazing cards. With tells, our opponent's nose may simply be itching during the hand. With online play and timing tells, our opponent may be acting slowly this hand because he's changing channels on his TV. With notes, our opponent may have read a few poker books and changed his strategy since the last time we played with him.

Also, sometimes, especially online, players will take actions that are just totally off the wall compared to all information we've gained up to that point. It's difficult to say exactly why. I've termed this phenomenon the bacon factor because of the following story. I once played a hand online, and the opponent showed a hand I never thought he would have in his range, given his play. I had the opportunity to discuss the hand with him later, and he told me he was cooking bacon at the time and had to press a button quickly because the bacon was burning. So, while information is critical to gain, we need to be careful making assumptions too aggressively with the information. Always be looking for new information to shape and reshape
your assumptions in a given hand and about that player's strategy as well.

I once sat at a table and noticed immediately the two players to my right were throwing chips all over the table with raises and reraises every hand. I'd seen a few of their hands at showdown, and they had very weak holdings. I began to get really excited about the opportunities I was going to have at this table.

However, after 15 minutes went by, the player two seats to my right left the table. I decided this was still a fine table to sit at because there was still the crazy player to my immediate right. However, after another 20 minutes I realized something. He had tightened up significantly and seemed to be quite good. It then dawned on me that what likely happened was the previous player, who was sitting two seats to my right, was actually the bad player. And the player to my immediate right was simply exploiting the bad player and often raising to isolate the bad player. If I wasn't still observing, I may have lost a significant amount of money by making inaccurate assumptions.

## Different Environments

Many times, especially when playing live, you'll find yourself sitting in an information-saturated environment. Many hands are going to showdown, opponents often needlessly show their hands, everyone is discussing the play of hands and giving their opinions, and all have easily detectable betting patterns. This can turn into a poker player's paradise.

Other environments are full of good players where hands are not often going to showdown, and no one is giving away information by needlessly exposing their hands or discussing strategy. Their bet-sizing is difficult to analyze, and they are capable of giving you false information to deceive you into making a mistake. If
you find yourself in this spot, you need to ask yourself why you're playing in that game. If your goal is to make money, you may want to strongly consider finding a different table.

In Poker Math That Matters, I talked about how you set the price for your poker education by deciding what size game you start playing. If you begin in a 25 NL game instead of a 400 NL game, you're obviously going to lose less money as you learn the game. Well, there's a very similar lesson with accurate assumptions. The micro stakes games are littered with players who are giving away tons of solid information. If you are not able to properly gather that information and use it effectively, you have no shot of doing so against the better players that are mostly found at higher stakes. So, the training grounds for accurate assumptions start at the micro stakes. Once you gain efficiency in accurate assumptions there, you can feel comfortable moving up and getting involved in the information battle against better players.

## Your Hole Card Confessions

Earlier I said it's important to conceal information from your observant opponents. During a hand everyone's actions are giving a story; even your actions are doing so. Because of this, many players go through great efforts to mute their hole card confessions. However, as we explore this concept a bit further, we may find those efforts to be a waste of time, energy and even money.

Giving off useful, reliable information is only a detriment if your opponent is listening and is willing and able to do something about it. Many opponents simply are deaf to any information being given at a table. Other players operate in such a static manner it's akin to them sticking their fingers in their ears and screaming "Lalalalala!" Still others are able to hear the information, but do not understand the game well enough to use
the information well. Even more players hear the info, understand how to use it, but are not willing to take the appropriate action for whatever reasons. Against any of these players, changing our optimal actions with the idea of concealing information or balancing our play is not a good choice.

The only time we need to be concerned about giving off useful, reliable information is when we know our opponent is able to gather the information and is capable of using it against us. If you find yourself against such an opponent, you may want to see if there is lower fruit to be picked elsewhere. However, at higher stakes the player pools are often quite small, and you may have no choice but to begin trying to conceal information.

## Levels of Thinking

As in any game of strategy, there are tiers of thinking that become more complicated as a player's skill level increases. In Hold'em, skill can be boiled down to four practical levels of thinking.

Level 1: What do I have?
Level 2: What does my opponent have?
Level 3: What does my opponent think I have?
Level 4: What does my opponent think I think he has?
While playing well at level 4 does indicate someone is a very skilled player, it should not necessarily be a player's goal. You'll see why as we discuss each level.

Level 1 is very simply looking at your hand and properly identifying your poker hand. This is challenging for a beginner, but quickly becomes second nature with practice. The beginner
bases the strength of his hand mostly on the poker hand ranking chart. Some a bit more advanced will consider the texture of the board. The former would hold T $\boldsymbol{T} \mathbf{T}$ on a board like T\&Q\& $2 \uparrow \mathrm{~K} \uparrow$ and say "Wow! I have a set!" They would consider themselves to have a strong hand since it's higher up on the poker hand rankings chart than Ace-high, one pair and two pair. The latter player would consider the texture of the board and say "Well, I do have a set, but there's a flush possible and any J has a straight." He may consider his set to be a marginal hand. The strength of the hand is seen on that static ranking and doesn't take into consideration that strong or weak are relative terms and hinge on the opponent's hand. A full house is just as weak as two pair when your opponent holds quads. They both lose the pot.

Level 2 enters the arena of exploitive play and is where you should spend the majority of your time against poor players. If making money is your goal, then you should sit with poor players often; therefore, you should be playing at level 2 thinking often. ${ }^{3}$ In level 2 thinking your concern is your opponent's likely hands and how you can form a strategy to take advantage of that range. This is the main focus of this book.

Level 3 thinking assumes your opponent is thinking well on level 2. This means your opponent is approaching a competent level. So, you need to be aware of this and begin to take measures to conceal information and balance your play. While not the most profitable situation poker has to offer, it can make the game more challenging and fun.

[^2]Level 4 is when the game is approaching what players call leveling wars. The "I know he knows I know" games begin to find an almost endless procession. This is assuming your opponent is thinking well on level 3. Again, when the skill of the game is reaching its peak, don't expect a lot of money to be transferred in the long run.

As you can see, if your opponents are mostly thinking on level 1 and the beginning stages of level 2 , then the best idea is to play on level 2. Anything further is over-thinking the game, and you'll lose value. Let me give you an example.

The river has come down $3 \uparrow T \backsim T \vee K$. The pot is $\$ 50$, and you both have $\$ 150$ left. You have A A A . Given the way your opponent played his hand, you believe he has a flush very often. Let's pretend this is a spot where you'd never shove as a bluff. You know that, and a good player probably knows that as well. If you want to get paid by someone thinking heavily about your range, you may have to bet a moderate amount like $\$ 30$.
However, your opponent in this hand thinks on level 1. He has a hand quite high on the hand rankings chart, and he will rarely fold it. A $\$ 30$ bet and a $\$ 150$ bet are both going to look very similar to him when he's holding a hand as strong as a flush. Do not make the mistake of thinking on level 3 in this scenario. If you do, you're likely to miss out on a lot of money.

## Get in Their Head

The important thing about gathering information is learning how our opponent thinks. Poker really has a very limited number of options. A player can either check, fold or bet. The limited number of choices in a poker hand can be deceiving in understanding our opponent's reasons behind his decisions. Imagine this scenario.

You're playing in a 200NL game online. You're 100x effective ${ }^{4}$ with the small blind. This is his second hand at the table. He completes in the small blind, and you raise to $\$ 9$ with T\&TV. He calls. The flop is Q 2 2ad. He checks/calls your $\$ 14$ bet making the pot $\$ 46$, and you both have about $\$ 177$ left in your stacks. The turn brings the T\&. He check/calls your $\$ 40$ bet on the turn. The pot is now $\$ 126$, and you both have about $\$ 137$ left. The river is the $\mathrm{A} \downarrow$. He shoves. You're happy to call, and he turns over $3 \leqslant$.

What can we glean about our opponent's thinking in that hand?
We may ask ourselves if he was slowplaying a big hand on the flop and turn or simply waiting for no flush to appear before he got all his money in the pot. Understanding his reasoning behind his play is important and may take some more information to truly get a good grasp of his thinking.

## Summary

Getting good at the information gathering process simply requires time and experience. Throughout the rest of this book, I hope to give you what I've gleaned from my experience in playing million of hands. However, there are also other ways to speed your process of developing accurate assumptions. One of my favorite ways to learn about gathering, interpreting and using information is to watch professionals play poker and listen to them as they play. One of the best sites for this is dragthebar.com (I'm a coach there.). They have hundreds of

[^3]videos where the professionals share their experience with you, an invaluable tool for any player.

Always be on the lookout for information. When you're not involved in a hand, don't lose focus. Watch your opponents and gain information you can use when you're in a hand against them. Sometimes people miss opportunities to gain information. A common one follows a bad beat. They're so upset they forget to realize they just saw a hand at showdown, one of the best types of information.

Quiz
(Answers on pg. 160)

1. Name seven different types of information to gather at table.
2. Why can showdown hands offer more reliable information than exposed hands?
3. What are some informational advantages of live play over online play?
4. What are some informational advantages of online play over live play?
5. What are two reasons it's a good idea to begin learning Hold'em at small stakes?
6. What is an information saturated environment?
7. What criteria must be met in order for your giving off information to be a detriment?
8. On what level of thinking should you normally find yourself?
9. What is a good way to accelerate the process of developing accurate assumptions?

## Player Types

Reasons for Playing
One of the first poker books I ever read was The Psychology of Poker by Alan Schoonmaker. I really enjoyed the book as it opened my eyes to the idea of thinking about how my opponent is thinking. Too often we too easily fall into the trap of egotistical thinking. This is where we think our opponent will play a hand a certain way because that's how we would play it. Obviously, that's not always the case.

People play the game for different reasons, and that fact has a large impact on their strategy. Motivations for playing can include money, entertainment, competition, social involvement, or even to feed an addiction. A check/raise is an exceptionally aggressive play which some players even find offensive. The person playing merely for social involvement or entertainment may be unlikely to check/raise you at any point in a hand. Such tactics are almost directly opposed to his purpose of playing; he's looking to have some fun and that doesn't involve making other people uncomfortable or upset. However, the person playing more for profit or competition will happily take advantage of the ability to get more money in the pot by check/raising. He's hardly concerned about your feelings or how he's perceived at the table.

People come to the table with different motivations and different ideas about how to fulfill their motivations. If winning is your goal, it's your job to figure out what's going on with each player and then take advantage of the weaknesses in his strategy.

## Player Types

The poker world is full of jargon and player types are no exception. There are nits, TAGs, LAGs, maniacs, calling stations, and then some. I'll review these terms, but the concepts of their play are certainly more important than knowing the terms.

Let's start with the nits (sometimes called rocks). In general, these players are rather risk averse. They like their money, and are unwilling to part with it easily. They are very tight preflop, sticking with the premium starting hands, almost regardless of position or situational analysis. The premium hands consist of big broadway hands like AK, AQ, AJ and KQ. The premium hands also include pairs like TT through AA. However, most nits will also play any pair 22-99 hoping to hit a set on the flop. Because of this, they often earn the title set-miner.

Postflop, rocks tend to play straightforwardly and sometimes even passively with their strong holdings. If they show any sign of wanting to build the pot, they almost certainly have a monster holding. On wet boards, you'll have to notice how they play big hands. Some of them want to get the money in very quickly to charge draws. However, others of them want to make sure the draws don't come in and then put their money in after the board has come down safely. They very rarely make thin value bets postflop, so they're more likely to check down marginal holdings. Both preflop and postflop, if they put money in, they've got the goods. Since strong starting hands tend to make strong hands postflop, these players often are sitting with good holdings. If a nit can find players who will pay them off when they are building the pot, they'll be able to make a nice profit at the tables by simply being patient. The nits have perfected patience. In games where players adjust to their reluctance to bet
without a big hand, nits will have a hard time making much, if any, money at the poker table.

TAG is an acronym for a tight, aggressive player. These players are normally competent at playing poker. Preflop these players will take advantage of position and situational analysis ${ }^{5}$.

Postflop they are also able to show aggression to exploit the holes in their opponent's strategy. While TAGs will lean on the strength of good starting hands, they will also show aggression both preflop and postflop to extract value, as well as pressure their opponents with an occasional bluff. These players are less risk averse than nits, yet when the pot gets big, they will typically have a strong holding. The TAG style is a solid style against most any opponent. However, most TAGs have similar playing styles. So, at a table full of TAGs playing the same strategy, little money will exchange hands in the long run.

Let's move on to the LAGs. This is an acronym for a loose, aggressive player. They expand their starting hand requirements preflop a bit and are unafraid to toss chips around the table. They're not afraid of risking chips and often like to get in the game "to mix it up". A LAG can be difficult to play against, and it often takes quite a few hands to figure out if he's a good player or a bad one. The LAG walks a fine line between spewing away his chips and keeping his opponents on edge. You'll often have to rely more on specific notes on each individual LAG instead of being able to neatly categorize their play. Playing a LAG style well requires a solid understanding of the game and a large amount of discipline. The world of a maniac is only a stone's throw away.

[^4]The maniac is a player who has little to no starting hand requirements and is very aggressive with his betting and raising. They've never heard of the word risk. They will force everyone to play big pots at the table. These are simply very bad players. However, having said that, it's not uncommon to watch a maniac simply pillage an entire table of everyone's chips. If they get a streak of fortunate cards, they can take their stack from 100x to 700x in just an orbit or two. Most the time, however, that stack disappears just as quickly as it was built. The maniac can actually have quite a strong strategy against players who refuse to call on the final streets without big hands. His opponent understands the maniac is betting large with weak hands and therefore starts calling with weaker holdings on the flop and maybe even the turn. However, by the time the river comes, sometimes the board is even more threatening and the final river bet is often an all-in bet as large as half a starting stack. Some players will crumble under the pressure at this point. The maniac is then able to scoop in all that money from the flop and turn betting.

A calling station, like a maniac, is a special breed of players. Like the maniac, they are loose preflop, appearing to have nearly zero hand selection requirements. However, they are not nearly as aggressive with betting and raising. As the name suggestions, they simply call at every opportunity. It's not uncommon to see these players call three large bets postflop with 55 on a 34 TQK board. They often feel everyone is always bluffing. The only time calling stations have any hope of winning money is when someone continually launches large bluffs at them. Other than that, their money has the life span of a dew drop in a desert.

Notice that every one of these styles can be wildly successful at the right table. The nit can make loads of money when his opponents pay him off with weak hands. The maniac can make
a ton of cash when people fold the river after previously calling large amounts. The calling station can make a bundle when opponents launch large, frequent bluffs. We need to take away a couple important points from this observation. The first is the importance of game selection. Game selection isn't just important to winning poker, it is winning poker. The ninth best player in the world is a loser if he's sitting with the top eight. The second important thing to understand is that to really crush a game, you need to be able to play different styles yourself. While the TAG style is a good all-around style, it may not be the most profitable style given the play of your opponents. If your opponents are doubting nits, you're going to want to morph into nearly a maniac. Facing a bunch of maniacs, you'll want to morph into something akin to a calling station. I'll have more to say on this later.

## How to Categorize Players

I mentioned earlier a powerful weapon in the information battle is classifying players in these player types. Once you've properly classified a player, it's likely he'll be thinking about situations the same way as do others of that player type. Categorizing is useful when you've not gained specific information about the player's actions.

Here's an example of using categorization. You get involved in a hand against the big blind. You've been at the table for an hour and you've only seen the BB play two hands. He folded both of those on the turn after his opponent made a large bet. You've not had the opportunity to get any further information. Now to your hand. You both start with 100x preflop. You hold JゅJV and raised pot from the button. He called in the big blind. He check/called your half-pot bet on a T $62 \boldsymbol{n}$. The turn is the $4 \boldsymbol{*}$. He again check/calls your half-pot bet. The river is the $9 \downarrow$. Now he leads into you with a pot-size bet.

What should you do?
You've never seen his actions on a river. We really only have a couple pieces of information to go on. He's been amazingly tight preflop, and he's crumbled under the pressure of big bets. Given this information, I'd classify him as a likely candidate for the nit category. These types are both tight preflop and averse to putting money in the pot with marginal hands. You might beat a hand like ATs, but most of the time the nit will not bet the river, especially with a pot-sized bet, with that hand or weaker. You have to be good $33 \%$ of the time to call on the river. Against a nit, that's very unlikely. Folding an overpair is never fun, but here it's almost certainly the best play.

Let's look at one more. You've just sat down at a 200NL table, and a player to your right raised preflop three out of the four hands you've seen. Two of those hands he won after the rest of the players folded preflop. The third one he won on the flop after shoving $\$ 70$ into an $\$ 18$ pot on a $T$ flop, and his opponent folded. On the fifth hand at the table, you're the big blind. Play folds to the villain on the button and he shoves all-in for $\$ 85$. The small blind folds, and you look down at A 9 .

What should you do?
We have yet to see any of our opponent's cards. However, we have a few pieces of information that allow us to classify him into a likely player type. So far he's played four out of the last five hands. While he may be getting very good starting hands, it's also likely he's just loose preflop. Also, he's raised every hand he's been involved in and had no problem making a large overbet on a rather dry board. The evidence so far suggests we can classify him as a maniac. While your holding is not normally a hand with which you're ready to stick in half your stack preflop, you almost certainly have more than $50 \%$ equity in
this situation against a maniac. Take your likely edge and stick the money in.

You won't always have the information you want to make difficult decisions. However, you have to take whatever you have and do your best with it. Categorizing is handy tool to assist with this problem.

One of the best ways to begin categorizing players is to spot their preflop tendencies. Even though online you can't get physical tells, you can get over a hundred statistics on a player by using a HUD. I can do very well with only two numbers, the VPIP and PFR. The VPIP stands for voluntarily put money in the pot. This is the percentage of times a player decided not to fold before the flop and therefore put money in the middle of the table. If a player voluntarily puts money in the middle preflop 25 times out of 100 , his VPIP will be at $25 \%$. PFR stands for preflop raise. This is the percentage of time an opponent decided not only not to fold preflop, but to raise preflop. If a player raised preflop 25 out of 100 times, his PFR would be $25 \%$. These two numbers can help you categorize a player quickly and accurately. ${ }^{6}$

Notice the PFR will never be higher than the VPIP. If a player raises preflop, he also voluntarily put money in the pot. However, the PFR can be lower than the VPIP. The larger the gap between these two numbers, the greater the indication the player is a more passive player. For example, if a player is a $30 / 4$, we know he's calling preflop with $30 \%$ of hands, but only raising preflop with $4 \%$ of hands. This tells us that most of the

[^5]time when he enters a hand, he's doing so passively with a call instead of aggressively with a raise or reraise.

A nit will have very low numbers as their VPIP and PFR. In full ring games, a nit may be $10 / 7$ (VPIP/PFR). A $7 \%$ range is AQ+, $66+$. So, you get a feel for just how strong his range is when he enters a hand. Notice also that a 10/7 has a rather small gap between his VPIP and PFR. When this player enters a pot, he not only has strong hands, but he's generally raising with them as well. He's playing strong starting hands and playing them rather aggressively (at least preflop) ${ }^{7}$. Many times these players earn the title of set-miner. These are players who play every pocket pair preflop and then hope to hit a set and get the money in the middle. In a 6-max game, the nit may look more like a $15 / 12$. Again, he's leaning on the strength of good starting hole cards.

The TAG will tend to have higher numbers than the nit. In full ring games, the TAG may look more like $12 / 10$ or $15 / 13$. Again, there's a relatively small gap between the VPIP and PFR. They're still being selective with their starting hands, but they're actually raising more hands preflop than the nit is even playing. Something to check with these players is their positional awareness. Most winning players will add additional hands in later positions like the cutoff and button. They're still playing mostly the same starting hands in early and middle positions as the nits. In a 6-max game, the TAG may look more like a 19/16.

When you find a player who seems to be playing with some hand selection, but seems unaware of the power of position, you have

[^6]probably found a type we've not talked about yet. We'll call him the starter. They're the type that play something akin to 24/13. Notice the gap between the VPIP and PFR is proportionally much larger than the nit and TAG. Typically these are players who have read a book or two about Hold'em but still are rather poor. Possessing some idea of starting hand selection, they don't understand how to use the power of position well nor the more advanced concepts of the game.

The LAGs can have a wide variety of numbers. In full ring, a LAG may look something like $18 / 15$ all the way to perhaps a something like $35 / 30$. In 6 -max, the LAG normally starts around $25 / 20$ and may even take on a game with a style as aggressive as $45 / 35$. Again, dealing with a LAG is tricky business, and you're going to have to be on your toes to figure out what he's all about. He's playing a lot of hands, but still showing selective aggression to give his opponents difficult decisions.

You don't need to identify maniacs. They identify themselves by standing on the table with a bullhorn proclaiming "I'm a maniac!" The number of people at the table doesn't matter. Maniacs are shelling out numbers like 80/60. I've played with some at 90/80 after many hands. There's no stopping them, and you'll spot them very quickly.

Calling stations are quite easy to spot as well. They're the ones limping in every pot and passively calling almost any and every bet postflop. They'll have numbers something like $50 / 5$ or even more dramatic at $80 / 2$. They're playing loads of hands preflop and have a massive gap between their VPIP and PFR.

Table 1. Player Types and Their Typical VPIP / PFR

| Player Type | Typical Full Ring | Typical 6-max |
| :---: | :---: | :---: |
| Nit | $10 / 7$ | $15 / 12$ |
| TAG | $14 / 12$ | $19 / 16$ |
| LAG | $23 / 20$ | $30 / 25$ |
| Maniac | $70 / 50$ | $70 / 50$ |
| Calling Station | $70 / 5$ | $70 / 5$ |

## Learn How Categories Think

How can you learn how player types think? Again, experience will be invaluable as you grow as a player. But, while you're gaining experience, there are some excellent ways to increase your understanding of how different player types think.

One good way is just to ask them! You almost never want to criticize a player at the table, especially if he's doing things that will be shipping chips in your direction. There's a vast difference between exclaiming "What were you thinking?!" compared to "Nice play. How did you know how to do that?" They very likely will give you honest information. You can do this in live play, of course, but you can also use the chat box in online play. Once you get them started, they may give you a mound of informational gold.

Another way to speed up the learning curve is to play over the shoulder of other people. One of my favorite things to do is watch some of my friends play poker online. Some are good at the game, and others are quite bad. I ask them questions as they play and listen carefully to their responses. I remember watching a particular hand where the board came down
$T \rightarrow 2 \vee 3 *$. My calling station friend was holding 6*6 and
said "Oh, I just rivered two pair!" Ever since then I've bet much larger on those types of boards against calling stations. Two pair is higher on the hand rankings chart than one pair!

Another way to learn about how players think, especially a TAG, is using poker forums. Sites like dragthebar.com have forums where you can post a hand and discuss the optimal play. Most of the time, the people participating in these discussions are TAGs. Many times I'll find myself wondering how my TAG opponent would play a given holding in a particular situation. "Would he raise me if he had AQ here?" I post the hand from my opponent's perspective and give him AQ. Then I ask, "What is the best play?" I can then simply read the responses and see how TAGs tend to think about that holding in that situation.

Another very solid way to learn about how a given player type thinks is to classify yourself. My natural tendency is to be a nit. I like my money, and it took a long time for me to learn how to use my stack as a weapon instead of guarding it with both arms. I understand the nit. I played about 300,000 hands as a nit. Because of that, the easiest players for me to play against now are the nits. Most of the time, I know their range so well in spots they might as well turn their cards over. What's your natural style? It's likely player types like you are having the same thoughts in given situations.

Quiz
(Answers on pg. 161)

1. What are three different reasons someone may play poker?
2. Which player type tends to want to protect their money the most?
3. Which player type forces everyone to play large pots?
4. Against what types of players will maniacs make a lot of money?
5. Against what types of players will calling stations make a lot of money?
6. Which player type has a good all-around playing style?
7. What two important points should we take away from an understanding that every style can be profitable?
8. Against which type of player are you likely playing when you see a VPIP / PFR of 40/4?
9. What are four good ways to learn how different player types think?

## Range

Range Review

In Poker Math That Matters, I spent a significant amount of time explaining and demonstrating ranges and how to work with them. At the risk of sounding like a broken record, if you're hazy on this topic as discussed in this book, please be sure to get Poker Math That Matters to get up to speed. However, for those who reject that advice, I offer a quick review on the concept of a range here.

When we make assumptions about our opponent's holding, we are building what we call a range of hands. We're not just giving him one hand: "I'm putting you on AK." We build a range by saying "I think you could have hands like AK, AQ or some small pocket pairs." This is a range of hands, and we can understand the probability distribution of that range to help us make mathematical decisions based on assumptions about his

When we talk about combinations in Hold'em, we're talking about the number of ways an opponent can hold a given hand. There are 1,326 possible combinations of starting hands in Hold'em. ${ }^{8}$ Each paired hand has six possible combinations. Each unpaired hand has 16 possible combinations. However, as cards from the deck become known to you - from the community cards, your hole cards or otherwise - this impacts the possible combinations your opponent can hold. For example, while there are 16 possible combinations of AQ , if you have an A in your

[^7]hand, this reduces the possible combinations for your opponent to hold AQ. Instead of 16 , there would now be $12 .{ }^{9}$

I do want to introduce a handy shortcut. Imagine you're playing online and you see a statistic that shows a player plays $8 \%$ of his hands in a given situation. You can take some hands and figure out how many combinations he can have by dividing them by 1,326 to get $7 \%$. Here's an example.
$22-\mathrm{AA}=78$ combinations
$\mathrm{AK}=16$ combinations
$\mathrm{AQ}=16$ combinations
These three total 110 combinations.
$110 / 1326=0.08$
The range $22+, \mathrm{AQ}^{+}$is $8 \%$ of the total starting hands possible.
However, there are a couple easier methods. The first way is memorization. While this requires some work, it's fairly simple to do with smaller ranges. You can take a software like PokerStove and experiment with different hands to find out what combinations make up $8 \%$.

Another way to do this is to realize a pocket pair is about $0.5 \%$, and an unpaired holding is about $1 \% .^{10}$ So, if a player can only hold every pocket pair, then that's about $6.5 \%(13 * 0.5)$. If you threw AK and AQ in there, you'd put about another $2 \%$ on top of that. This would make about $8.5 \%$ of starting hands. You can play with PokerStove to see this happen.

[^8]It's important to tinker with these various equations to get used to ranges and develop a good feel for how significant or insignificant certain parts of a range are. So, when you imagine a range of $\mathrm{AQ}+, 44-66$, you will immediately know it's weighted rather heavily towards the unpaired holdings. ${ }^{11}$

I normally recommend beginning players to start off playing in full ring games instead of 6-max or heads up. In full ring you tend to get more opportunities to experience smaller ranges and more straight forward playing styles. Working with smaller ranges is easier than working with larger ranges. There are just fewer hands and combinations to think about because players tend to play more tightly and passively in full ring as compared to 6-max or heads up games.

## Shaping a Range

Shaping someone's range is both a science and an art. It's an art insomuch as we have to be able to skillfully use our informational tools to - hopefully - accurately assume what hands are in the range. It's a science in the sense we can analyze the shape of the range by understanding the certain probability distribution of each hand in the given range.

Shaping a range is much more analogous to sculpting than it is to constructing. Just as a sculptor begins with a large piece of material and skillfully removes pieces, we do the same thing by beginning with the total possible combinations of hole cards and then skillfully remove combinations as we gain information. Every time we gain useful information, we can chisel away some hands and gradually get a greater understanding of our opponent's range that we can better play against.

[^9]When we're in a hand, our opponent can begin with any of the 1,225 combinations left for him to hold. Then the hand begins. Let's just jump in by looking at an example.

We're sitting in a live 10 -handed game with blinds of $\$ 1 / \$ 2$. We're on the button with two cards. The UTG player seems to be a TAG. He's been quite tight, seems aware of positional advantages, tends to value bet well and keeps pots small with marginal hands. He raises preflop to $\$ 7$. Immediately, we take out a hacksaw and buzz off a giant portion of starting hands. From what we've seen, we're assuming he's raising with 66+, AJ + , KQ. We're already down to $8 \%$ of hands. Everyone folds to us. We call, and the blinds fold. We started with $\$ 200$, and the pot is now $\$ 17$. The flop is $\mathrm{A} \downarrow \mathrm{J}\langle 3$. He checks. We take out our refining tools and begin to chisel away here. We know his type likes to build big pots with big hands. They also like to charge people to draw when the board has draws present. It seems unlikely he wouldn't bet with any of his big Aces, AA or JJ. Being out of position, he's unlikely to be slowplaying as well. Given this information we can start to heavily discount the probability he's holding top pair or better. We chisel those away and get something looking like 66-TT, QQ-KK, KQ and the remote possibility of a slowplayed monster. We check behind. The turn is the $\mathrm{Q} \downarrow$, and he checks again. This turn card would help QQ and KQ. The QQ would now have a set and would likely bet to build a pot. The KQ may still check, though, since it's still not as strong as top pair. We decide to bet $3 / 4$ pot, and he calls. Pull out the chisels again. With the three overcards on the board, 66-TT is unlikely to call when out of position. If QQ did check the turn, it would likely be with the intention of check/raising, but he didn't do that either. By the time the paper stops flying from our chiseling, we're left with KK and KQ. Using the information given to us during the hand, we've been
able to narrow our opponent's most possible holdings to a very small range.

So, the process of shaping a range is to start with all possible hands and then as your opponent gives you information, you remove or discount certain holdings, and this leaves you with a smaller portion of hands. This process will continue as long as your opponent is giving you information with which you can remove hands. Sometimes an opponent's action will not allow you to remove any hands and you are simply left with a large range of hands. Perhaps you're playing against an opponent who goes all-in preflop every hand. He's done this for all 20 hands you've played against him. You've not called yet so you've not seen any of his hands. The $21^{\text {st }}$ hand now starts, and, again, he pushes all-in preflop. We really can't remove any possible holdings. It seems he simply has any two cards in this situation. But, while we can't remove any holdings, we still can shape his range. Let's discuss the shape of a range.

## 40

The Shape of a Range
As I mentioned, once we have the makeup of the range, we're actually able to shape it using combinatorial mathematics to understand the probability distribution of each holding. There are a handful of very common range shapes for us to understand. When you begin to develop a feel for the shape of someone's range, you can use this information to play a solid, exploitive game. And that's where I'm taking you. Getting a feel for the shape of a range is much simpler than doing math at the table by counting combinations. The range shapes we'll discuss are bell, polarized, weak, strong and flat. The beginning of our graphs looks like Figure 2. On the left side are weak holdings. The middle is marginal holdings, and the right side is strong holdings.


Figure 2. The base for the shape of a range.

Let's begin with the bell shape range. Figure 3 shows the bell shape range as being filled with marginal holdings and little to no weak or strong hands. The hand on page 38 was a perfect


Figure 3. The Bell Range
example of a bell range. The board was $\mathrm{A} \bullet \mathrm{J} \bullet 3 \downarrow \mathrm{Q} \downarrow \mathrm{A} \downarrow$, and our opponent's assumed range was $\mathrm{KK}, \mathrm{KQ}$. Those were all perceived by him to be marginal hands. He has a bell-shaped range. ${ }^{12}$

[^10]Let's now look at the weak range. It's fairly self-explanatory as Figure 4 shows. We've already seen a pretty good example when


Figure 4. The Weak Range
the maniac shoved $\$ 85$ in preflop on the button and we held A9 on page 28. Most players, even maniacs, will raise smaller preflop with their monster starting hands. Generally, when those players make crazy shoves, their hands are quite weak. These villains are hoping you'll fold. Any maniac is likely to have a weak range in that spot.

Let's move on to the strong range as seen in Figure 5. Again, it's sell-explanatory as simply a range made up entirely of strong


Figure 5. The Strong Range
hands. We saw this in our example on page 27 of the nit suddenly leading out with a pot bet on the river. He simply does not bluff this way or bet out marginal hands that large.
Therefore, his range is full of strong hands in that spot.
Moving on to Figure 6, we see the polarized range. This is the opposite of the bell-shaped range. It's a range comprised almost entirely of very weak or very strong hands without any marginal hands in it. Let's look at an example of a polarized range.

You're in a NLHE game with $\$ 2 / \$ 5$ blinds. You have $\$ 500$ on the table and everyone else has you covered. Play folds to the button who raises to $\$ 20$. He's a good LAG. Even though we're starting with all 1,225 combinations, we can still only pull out a chisel instead of a hack saw. This opponent knows how to use position and can have a very wide range here. He may even be raising close to any two cards in this spot. You're in the big blind and, after the small blind folds, you look down at A $\uparrow$ Tゅ. You decide to call. The flop comes T bets $\$ 30$ into the $\$ 40$ pot. Again, we can't really do much chiseling here. A player like this will fire a continuation bet on this flop with almost his entire range. You decide to call. The turn is the Ks. You check, and he bets $\$ 75$ into the $\$ 100$ pot. Unfortunately, our chisel is still getting little use. The turn is an overcard, and he may find it a good card to continue putting pressure on us trying to get us to fold a marginal hand. He also may continue to semi-bluff with any heart or club flush draw or a straight draw like QJ or A3. He could also feel he's extracting value from our range with a $66+$ middle pair or better, since there are a good number of draws on the board. His range is still


Figure 6. The Polarized Range
really wide. We decide to call. The river is the $6 \boldsymbol{\downarrow}$. We check, and he shoves $\$ 375$ into the $\$ 250$ pot. OK. Pull out the hacksaw. After a massive river bet from this player, we need to get very busy with that hacksaw. The flush card came on the river, and he's throwing it all in the middle. It's a rare player who will make this shove even with a set of kings or a straight. This is normally a monster hand like the nut flush or a very weak hand trying to use the scare card to get you to fold. The marginal portion of his range just got hacked right out of his range. Here he has a polarized range.

Before his river overbet, we were left with a flat range as shown in Figure 7. In his range there were marginal, weak and strong hands.


Figure 7. The Flat Range
In the coming sections of this book, we'll learn how to exploit our opponents using the shape of their range mixed with their strategy.

46

Quiz
(Answers on pg. 162)

1. Using estimates, what percentage of starting hands is 66+, AJ+?
2. How is shaping someone's range both an art and a science?
3. How is shaping a range similar to sculpting?
4. What type of range has only strong and weak hands in it?

## Eagle Eyes

## Specific Notes

It's extremely important to keep your focus on the game, regardless of whether or not you're directly involved in the hand. Information is always being given at a table and that information can make you loads of money.

We've learned about different player types and how to categorize different players based on some of their actions. However, as we continue to get more information, we'll be able to really hone in on our opponent's specific thought processes in many different valuable situations. When playing live, we'll just have to make mental notes and do our best to remember our interpretation of the information. When playing online, we're actually able to take physical notes on our opponents at the table (See Figure 8). When we face them again, we already have that information ready to go. I'm an avid note-taker. Not only does it help me get the information I need to play well, it also helps me stay focused when playing. Even when I'm not in a hand, I'm always digging through other hands I wasn't involved in and seeing what information I can gain from the player's actions.


Figure 8. Screenshot of notes on a poker site.

When you're playing online, you don't have a lot of time between actions. This means you have to move pretty quickly or you risk running out of time and being forced to fold. If you're not a good typist, you'll need to fix that. Get a typing tutor program for a few bucks, and work on your typing skills. You'll also want to develop some acronyms or short phrases to speed things up. For example, if you were looking through my notes on a player you might see "ciocb IP with bp on dry flop". To me this means the player checked instead of making a continuation bet when in position with bottom pair on a dry flop. Notice even though the line is very short, it contains very specific and useful information.

Hopefully you're asking, "What do I take notes on?" It's a great question, and beginners really just don't know. Over the years, I've developed a mental list of things I've found useful in shaping a player's range. You can do this, too, as you break down hands and think about how you might chisel away at someone's range. I'll give you some things I look for that I find valuable during play. However, this is not an exhaustive list, and you always want to make sure you are thinking on your own. The list will help you develop some thoughts on how an expert carves out on opponent's range as every decision is made.

Let's begin by looking at some preflop notes.
Specific holdings in specific positions - Imagine a tight player raises from UTG. You're playing online and check your HUD for his PFR percentage in early position. It says $8 \%$. We can make some assumptions about his range, based what we know about starting hand percentages. If he will raise every pocket pair, then that's about $6 \%$ of hands. A couple more percent is probably made up of AK and AQ. That gets us to $8 \%$. However, there are other ways someone can make up a reasonable $8 \%$. Some players will fold small pocket pairs
preflop in early position like 22-66. If that's the case, then their $8 \%$ opening range might contain more broadway hands like AJ+, KQ, 77+. Taking specific notes on what you see to help define a player's range can be very useful. I always take a note when I see a tight player raise a small pocket pair like 22 from early position. That way I know pocket pairs are a large part of their opening range and can later use that information to my advantage. While we already know the shape of this player's range is strong, understanding the makeup of the $8 \%$ will give us a good idea for the shape of his range on different flops. We'll touch on that in more detail further in the book.

Imagine you're in another hand with ATs in middle position. A tight player opens from UTG and it folds to you. You decide, most likely wisely, to fold. Play then folds to the button who reraises. You've not seen much from him, but so far he seems like a fairly tight player. He reraises. Next thing you know, they're all in preflop to create a 200x pot. The UTG player turns over AA, and the button shows JJ. The UTG player's actions were fairly standard and not really worthy of any notes. However, the button showed his thinking about medium pocket pairs against a likely tight range. Many players would just call with the JJ preflop; however, this player is more aggressive with those hands preflop and is willing to stack it against a very tight range and 100 x stacks. It is valuable to note his tendencies with these types of hands. The player who calls with hands like JJ is then likely to have a very polarized range or a very strong range when he reraises a tight player.

Different raise sizes - Many players vary their raise sizes based on how they feel about the hand and situation. If they would rather people fold, they'll raise larger. If they rather them call, they'll raise smaller. In online play, most sites have a button to make a pot-size raise preflop. However, some players will not
use that button and will create their own bet size. Online a standard opening raise preflop is to 3 x or 3.5 x the size of the big blind. Most of the time if I see a player raise UTG to 4 x , they often hold a hand like AK or TT that they know is strong but they hate playing it postflop because things tend to just get awkward. Therefore, they raise larger to try to end the hand right then. These tendencies are amplified as players with holdings like AA try to lure opponents further into a hand by raising smaller. They don't want to scare anyone away. I often confirm a player's actions when I see this tendency by taking a note. And I certainly take a note when I see them go against this tendency.

Another interesting spot occurs preflop when a good player raises a bad player who limped in the hand. Imagine you're at a $\$ 1 / \$ 2$ table where everyone has $\$ 200$. A very bad, loose and passive player has limped in a hand from early position. He's determined to see nearly every flop for a reasonable amount of money. Play folds to the cutoff seat. The cutoff is a very good, aggressive player. He raises to $4 x$ the big blind. This is a rather small raise in this spot. Often when a player has a strong hand in this spot they want to raise larger to get more money in the pot since the loose player is so likely to call. However, good players often raise smaller here when they're simply trying to get heads up against the bad player and keep the pot smaller in the process. Note what types of hands he has at showdown given different opening raise sizes.

Positionaly aware - It's always good to know if your opponent is aware of the power of position. Some players will have a static range of hands they consider playable, regardless of position. Maybe they play any two broadway and any pair from every position. When you see a player with very similar VPIPs from every position, you are likely against a player who doesn't
understand the power of position. A player who does understand position will normally have a much higher VPIP and PFR in later positions than earlier positions. Notice in Figure 9 my VPIP and PFR from early position to late position. Obviously I'm aware of the power of position.

| Position | Hands | bb/100 | VPIP\% | PFR\% |
| :--- | ---: | ---: | ---: | ---: |
| 1) small blind | 78216 | -19.04 | 22.1 | 15.7 |
| 2) big blind | 77899 | -27.57 | 20.8 | 12.0 |
| 3) early | 87749 | 12.85 | 13.9 | 13.5 |
| 4) middle | 88879 | 17.95 | 17.8 | 16.4 |
| 5) cutoff | 74355 | 19.48 | 23.2 | 20.5 |
| 6) button | 77068 | 32.34 | 30.4 | 25.6 |

Figure 9. VPIP and PFR as positional advantage increases.
Let's look at some examples of note taking regarding postflop actions.

Continuation betting - Making a continuation bet is often a profitable strategy. Difficult as it is to make a strong hand on the flop, your bet continues to put pressure on your opponent.
Because of this, many players will make a continuation bet with a large portion of their range. However, there are some patterns you may observe. Getting a good grasp on your opponent's strategy regarding continuation bets will allow you to begin shaping his range very early in the hand. Some players will continuation bet with a very polarized range. They will bet with their very weak hands and strong hands; however, they often check with what they perceive as marginal hands like middle pair. Most of the time they're doing so to keep the pot smaller and perhaps capture a bluff from you on the turn. If you notice a
person doing this, you can give them a bell-shaped range when they check instead of making a continuation bet. Conversely, you can give them a polarized range when they bet.

There are also some patterns to be noticed based on whether or not a player is in position or out of position on the flop. For example, some players make continuation bets much more frequently when they're in position as compared to when they're out of position. When out of position, many players will simply check on the flop if they don't make a hand and then fold if their opponent bets.

Also, players may feel differently about different flop textures. Some are more prone to make a continuation bet with AK on a
 expect people will fold less frequently on the latter board since there are so many more draws. While this is solid thinking, it's still dependent on their opponent's range. If your opponent's range is $22-99$ and $\mathrm{AQ}^{+}$, the 8 T 9 board is not a very draw heavy board at all.

Yet something else to note is the sizing a player chooses to make with a continuation bet. Some players will make a pot-size bet when they have a hand but only bet half pot when they have nothing. These patterns can again be amplified given different board textures. Many players will never continuation bet less than half pot if they have a strong hand on a very wet texture like $8 \rightarrow 9$ because they don't want to let all the draws continue cheaply.

Fit or fold - A valuable note is to understand how a player will play on the flop. Do they simply fold to aggression if they don't make anything? Do they call with any pair and then fold to future aggression on a later street? How weak of a draw will they call against different-sized bets? Will they call a half-pot
bet with a gutshot or two overcards? Understanding if a player plays fit or fold will help you shape their range.

Slowplaying monster flops - Does your opponent tend to slowplay when he flops a big hand or does he try to get money in as quickly as possible? Sometimes players will only slowplay a big hand if the flop offers few draws. For example, some players will slowplay TT on a T $\downarrow 2 \downarrow$ flop, but will never slowplay it on a $T \diamond 9$ Q flop.

One and done - An important thing to note about your opponents is their tendencies after they've made a continuation bet. If they c-bet and you called, do they normally give up on the turn if they don't have a strong hand? Many players qualify as a one and done c-bettor. They fire a continuation bet with a huge part of their range, but will stop their aggression on the turn if they don't have a hand. Will your opponent continue their aggression on the turn with a strong draw or will they tend to take free or cheap cards on the turn? Will your opponent continue aggression if a scare card comes on the turn after you called the flop? Do they continue to bet marginal hands on the turn? Will they slow down on bad turn cards, even though their hand was super strong on the flop? Do they tend to bet more or less often on the turn if they're in position or out of position?

River betting - Understanding your opponent's strategy on the river is extremely important. With what types of hands does he make value bets? Some players will almost never make a bet with a hand like middle pair. They prefer to simply check it down or check and perhaps call if you bet. Some players will never turn a hand like a pair or ace-high into a bluff on the river. Some players will only make very large river bets with very strong hands. Some players bet very small on the river with weak hands, trying to set their price to showdown when they're out of position.

Believer or doubter - Some players are always thinking people are bluffing them. They're doubters. Other people normally feel when people are making bets they have a good hand. They're believers. It's good to note when you see a player make a call, especially on the river, that shows they not only believed their opponent was bluffing often but they also were willing to put the money in the middle to see the cards. I always note when a player has seen me make a bluff as well. They're less likely to believe I have a good hand in the future.

Creativity - Some players are quite creative with their strategies. Other players opt for a static, straightforward style. It's important to know which players are which. Some players never get creative. You can often identify the straight-forward opponents by seeing how many tables they're playing. Some players play twenty tables or more simultaneously. They may have very little time to be creative with their play when they're playing so many tables. Straightforward players generally try to keep pots small with small hands and try to make pots large with big hands.

DST
While taking notes is extremely important, it's also important not to go too far with limited information. Just because someone did something once doesn't mean they're always going to act that way or that we correctly interpreted his thoughts. I normally use the acronym DST in front of my notes when I've only seen something one or two times from a player. This stands for Doesn't Seem To. If I see a player check back middle pair, top kicker on the river, I'll often make the following note. "DST value bet thin on the river in position." If I see him do that again, I may remove the DST. If I see him bet middle pair a time or two, I may remove or change my old note. I'm doing this so I'm not too aggressive in my assumptions until I get a
better idea of how that player actually thinks. Do not be too aggressive with your information.

Also, many players are always changing their game and trying to get better. They may have just read a new poker book or joined a poker-training site, like dragthebar.com, and are now making adjustments to their game. So, always reexamine your old notes as you see your opponents making changes.

## Examples of Notes in Action

Following are a few example hands to demonstrate what bits of useful information we can gain about an opponent's strategy.

You head to your local casino, get $\$ 300$ in chips and sit down at a $\$ 1 / \$ 2$ NLHE game. You post the big blind and get dealt
$\mathrm{A} \downarrow$. Play folds around to a player in middle position who raises to $\$ 8$. The button calls. They both have more money than you do. You decide to call. The pot is $\$ 24$, and the flop is $\mathrm{A} Q \mathrm{Q} 4 \mathbf{4}$. You check and the middle position player bets $\$ 25$. The button folds and you decide to call. The turn is the $6 \uparrow$. You check and your opponent bets $\$ 60$. You decide to call once more. The river is the $2 \downarrow$. You check and your opponent checks. He turns over K ${ }^{2}$ and you win the pot.

What did we learn about this player?
His raise preflop in middle position with a holding as weak as K2s shows us he's probably a pretty loose and aggressive player preflop. When he raises preflop in the future, we'll be unlikely to narrow his range much at all. His continuation bet on the flop shows us he can make large continuation bets with draws, even into multiple opponents. His large bet on the turn tells us he's more likely to bet the turn with his draws instead of taking free cards. He was in position on the turn, so he did have the opportunity to just check and see if he hit the flush on the river.

However, he decided to bet, and bet the pot. We won't be able to narrow his range to only made hands on the turn when he bets in position. His check on the river is interesting as well. He paired his two and decided to simply show it down. However, given your action so far, it's very unlikely his pair of twos is going to win the pot. The fact he has two spades as well reduces your combinations of spade holdings, and you've called two very large bets out of position already. So, we can gather he's probably not very good at reading hands. Also, we learned he probably doesn't turn what he considers showdown worthy hands into bluffs on the river, at least in position. So, when he bets on the river, he's likely to have a fairly polarized range. We certainly learned a lot about that player in just one hand, didn't we? We could also - probably - safely categorize this player as a LAG, while keeping the maniac category close at hand. If I were playing online against him, I'd make the following notes in the note box.
"open 4 x in mp with K 2 s , fired pot c -bet into 2 with only ff, barreled pot on turn IP with FF, checked down rivered pair of 2 s IP otr."

I'll translate, so you know what my poker note shorthand is saying.
"Opened four times the big blind in middle position with K2s, fired a pot-size continuation bet into two players with a four flush, bet a second time on the turn in position with a four flush, checked down a rivered pair of $2 s$ in position on the river."

Let's change the ending of that hand a bit. Say the river was the JV. The pot is still $\$ 194$ on the river, and you have $\$ 207$ left in your stack. You decide to go for a check/raise. Your opponent obliges after you check by betting $\$ 120$. You follow through with your plan by check/raising all-in. The pot is about $\$ 520$,
and your opponent only needs to call $\$ 80$ to showdown.
However, he doesn't even think about it. He quickly throws his cards away and curses under his breath.

We didn't get to see his hand this time, but what can we learn?
We were unable to learn about his preflop range, his continuation betting tendencies, his tendencies of betting the turn with draws in position nor his tendency to check down made hands on the river. However, given the speed of his river fold and the amazing price he was getting to call in such a big pot, it's almost certain he only had a bluff. With any sort of hand at all, he'd at least have to consider calling. So, we learned this player is probably very aggressive and likes to bluff and bluff large. We have to be more cautious with our information here, though. For example, I wouldn't yet classify this player as a LAG. Most player types fire a big bluff now and then.

Let's look at another one. You take your virtual seat at an online poker site. A $\$ 2 / \$ 4$ NLHE game and you've bought in for $\$ 200$. After folding a couple hands, you get $\mathrm{A} \boldsymbol{\mathrm { K }}$ in the cutoff seat. Play folds to you and you raise to $\$ 14$. Everyone else folds, but the big blind calls. He has you covered. The flop is A $\downarrow \mathrm{K} \downarrow \downarrow$. The big blind checks, and you bet $\$ 25$ into the $\$ 30$ pot. The big blind makes a quick call. The turn is the T t . The big blind checks and you decide to bet $\$ 60$ into the $\$ 85$ pot. After a few seconds, he calls. The river is the $9 \boldsymbol{A}$. The big blind checks again and you decide now to bet $\$ 150$ into the $\$ 205$ pot. The big blind presses his time bank until it's almost gone and then folds. He shows $\mathrm{Q} \downarrow \mathrm{Q}$ •

What can we learn about him from this hand?
His preflop call is quite passive. Many players will have a wide range raising from the cutoff when it's been folded around to
them. Most players value QQ as a very strong hand in that situation. His quick call on the flop shows us that he's a doubter and rather sticky postflop, even out of position. ${ }^{13}$ His turn call also points to his unwillingness to fold very marginal hands to heavy aggression on later streets. We also may ponder the idea he's overvaluing his gutshot on the turn. If that's the case, he's likely unaware of pot odds. After the river came down and you're still firing big bets as an unknown player to him, he still has to seriously consider the decision to fold his queens. He also needlessly exposed his hole cards. Not only is that a poor decision in the battle for information, but it also verifies he likely wants to show everyone what he considered to be a very tough, but good, fold. So, while we can't learn about his preflop looseness or tightness, we can glean that he's probably rather passive preflop. We also can classify him as a doubter and very sticky postflop. Possibly we can classify him as a calling station.

Let's do one more. You've been playing at a $\$ 2 / \$ 4$ table for an hour. Everyone at the tables has about $\$ 500$. The player across the table from us has played just four hands and has shown only premium holdings so far. He's UTG in this hand and opens to $\$ 14$. It folds to you on the button, and you call with 89. The blinds fold. The flop is K $\$ 9$. He bets $\$ 10$ into the $\$ 34$ pot and you call. The turn is the T $\uparrow$. He checks and you check. The river is the $A$. He again checks and you check it down. He flips over $3 \leqslant$ and you win the pot with your pair of 9 s.

What did you learn about this player?
Well, we know he's been quite tight so far, but we did learn he's raising any pocket pair in early position. We also learned he will

[^11]continuation bet very marginal made hands when out of position. Also, notice his sizing is really quite small when he's just taking at stab at winning the pot right there. He seems to be a one and done c-bettor, since he surrendered after his small c-bet didn't work. The river was a really good card for him to bluff, but he didn't. He simply decided to check down with his 33 , when it's likely never good in that situation. Probably safe to say, this player is a nit.

Quiz
(Answers on pg. 163)

1. Why is it always important to keep your focus at the table regardless of whether or not you're involved in hand?
2. What are three things you can take notes about a person's preflop strategy?
3. What are seven things you can note about a player's postflop strategy?
4. What is the important concept behind the acronym DST?

## Enter Steal Equity

Two Ways to Skin a Pot

Before we get into exploiting our opponent's strategy, I need to lay some groundwork for exploitive play. It's important for the transition of understanding how to use your stack as a weapon.

Back in early 2005, I was working hard to learn to play poker well. One day, I was discussing a particular hand in a poker forum. I was thinking of checking in the hand under discussion. However, one of my favorite posters mentioned he'd rather bet. I asked him why. His answer opened a whole new world of poker to me. "Because betting gives me two ways to win the pot", he said. And there it was. There was more than one way to skin a pot. I can have the best hand at showdown, or I can get the villain to fold. To that point, I was mostly just thinking about the equity I had to showdown the best hand. However, there was this power waiting to be used: the power of fold equity or what we could call steal equity. Steal equity is all about what we gain when our opponent folds. So, we have two ways to win a pot:

1. Showdown the best hand.
2. Have your opponent(s) fold.

Showing down the best hand is fairly obvious. When we talk about preflop action, this taps into the idea of hand selection. Stronger preflop starting hands make stronger hands at showdown. When we talk about how well a hand does at showdown, we're talking about the showdown equity of the hand. AA is better than 27 o by the time the hand is over, more often than not. No great surprise there.

Let's look at a slider to get the effect here. Looking at Figure 10, let's say, in order to be played profitably, a hand has to be


Figure 10. The Showdown Equity Scale.
stronger than a 3 on this example scale.
Looking at Figure 11, we can perhaps plot out some hands on this showdown equity scale. AA is, of course, busting the scale, and 720 is just getting it started. Maybe AJs is just over 3, and Q8o is just under 3. Looking at starting hands in a vacuum against a random range all the way to showdown is a fairly simple exercise. You can use a software like Pokerstove and plot starting hands on this continuum. However, unless we're going to be all-in preflop every hand against a random range, this also a fairly useless exercise. More often than not, we're going to have to play poker on the flop, turn and river. So, we have to consider how the hand will play out postflop. This brings us to the world of steal equity.

As I said, steal equity is us profiting when our opponent folds and gives us the pot without a showdown. Imagine play folds to us on the button and we raise with 67s. That holding can hit two pair, a straight or a flush and have high showdown equity. But, we can also just steal the blinds when our opponents fold preflop. Or, we may get a caller and then win the pot by betting the flop and having our opponent fold at that point. So, notice a hand has both showdown equity and steal equity.


Figure 11. The possible showdown equity of various hands.

Looking at Figure 12, we'll see our scale again with the added world of steal equity.


Figure 12. Adding the world of steal equity.

Let's say we still need a value of 3 in order to play a hand profitably. Remember, AA is so strong it can be played using showdown equity alone. However, remember Q8o just wasn't strong enough. But, what if we added a little dash of steal equity? Looking at Figure 13, now we can play the hand profitably.


Figure 13. By adding some steal equity, Q8 gets a value greater than three.
Remember, our 72 o was bottoming out the showdown equity scale. So, in order to be able to play that hand profitably, we have to max out the steal equity of our situation (See figure 12).


Figure 14. Maxing out steal equity to make 720 a profitable hand.
Hopefully, at this point, you're asking "How can I increase my steal equity?" Well, there are many factors that can go into the mix. Among the factors are these.

1. Your opponent(s)
2. Your position
3. Your image
4. Stack sizes
5. Meta game

Let's spend a little time examining each of these.
Let's begin by thinking how our opponents impact our steal equity. Tight opponents give you high steal equity preflop. Imagine play folds to you in the small blind and the big blind only plays the top $7 \%$ of hands, regardless of your raise size. Well, this is the time to minraise any two cards and just take the blinds. Given your opponent's strategy, your steal equity is so high your hand doesn't even matter.

There are similar situations postflop. Some players play what's called a fit or fold style. If they don't flop something at least as strong as top pair, they'll just fold to any flop aggression. This gives you high steal equity postflop. Because of these opportunities, you can play hands that have lower showdown equity. But remember, you must rely on aggression postflop to take advantage of your steal equity. Here I'll add a note of
caution. If the villain is a tight player preflop, be cautious about trying to take advantage of steal equity postflop. This is tricky ground because when your opponent enters a pot, he has a hand with high showdown value, so your postflop steal equity goes down considerably. Recall our example in the small blind with a player in the big blind playing only $7 \%$ of hands: if he were to call my raise, I'd be done with the hand, unless I flopped a monster hand. Making a continuation bet on most any flop there is going to be throwing money away.

And so the converse is true with loose players. A player both loose preflop and postflop forces you to have better starting hands. With little to no steal equity at any point in the hand, you'll have to lean more on the power of showdown equity which comes with having a stronger range than your opponent. You'll need better starting hands, which requires patience waiting for better hands preflop.

A player who is loose preflop but plays an extreme fit or fold postflop strategy is an absolute gold mine. He'll enter the hand with weak cards where he'll not often flop a strong hand and then just give you all the money he invested preflop. You can even raise larger preflop to build a larger pot that you're going to steal often on the flop.

Very aggressive players give you low steal equity both preflop and postflop because they're frequently betting and/or raising, which often forces the hand to end before the showdown.
Because of this, you'll again need to lean more on the power of having better starting hands than the average starting hand in his range.

Let's talk a bit about how position impacts your steal equity. If you've been around Hold'em long, you've probably seen a starting hand chart. They always have the same thing in
common. There are always more hands you can play in late positions than those you can play in early positions. When you're last to act preflop, there are fewer players who have to fold in order for you to win the blinds. When you act last postflop, you can apply more pressure on your opponents and get more information about their hand strength. This increases your steal equity. Therefore, we can play more hands with weaker showdown equity, as we are in late positions where we'll be able to act last more often.

When you have to act first, you will not have the advantage of knowing your opponent's actions, which decreases your steal equity. Because of this, we need to rely on hands with higher showdown equity in early positions where we're likely to be acting first in the hand.

Stack sizes also play an important role in the amount of steal equity you have. No one likes to lose a huge pot. However, when people have little money left to play with, they often despondently - toss the rest in the pot. When players have little money left in their stack compared to the pot, your steal equity decreases. They're more likely to just toss the rest in with weak hands. However, when players have more money left in their stack compared to the pot, your steal equity increases. They are less likely to want to go to showdown for a lot of money with weaker hands. Because of this, you often need to rely more on showdown equity against smaller stacks and/or smaller SPRs, but can gain steal equity when stacks are deeper and/or SPRs are higher.

If you're playing against observant opponents who are thinking on level 2 , you need to consider what they think about you. In these situations, your image will play an important role in the amount of steal equity you have. If they think you're betting weak hands often, your steal equity is going to be lower. If they
think you're betting only when you have a strong hand, your steal equity will be higher. If your image is that of betting weak hands, you should wait for hands with higher showdown equity. If your image is that of betting only strong hands, you can be more lax with your starting hand requirements and take advantage of steal equity.

Meta game factors into your steal equity as well. There are many different possible scenarios to discuss, so you'll have to do some thinking on your own about all the possibilities. A good example, however, is when a player has just lost a big pot because someone else got lucky. Many players get quite bothered at that point - got tilt? - and become very aggressive. They are prone to take greater risks. If this is the case, your steal equity is reduced.

Similarly, if you're playing against thinking players and you just took a bad beating for a big pot, again, your steal equity may be reduced, as they may feel you're getting more aggressive. A textbook case for having high steal equity could be seen when you're playing live. Imagine a player just won a big pot and is now racking up his chips to head home and lock up his win. He'll be in no mood to give back chips. In this case, you're likely to have very high steal equity.

In tougher games, stealing well is an important skill, if you hope to have a good win rate. Players are better at hand-reading and will not pay off your big showdown hands as often. So, in order to be successful, you have to steal your fair share of pots. In games and situations where steal equity is low, you have to rely on showdown equity, be patient and cut back on the bluffing.

A strong showdown hand, in what's perceived by your opponent as a high steal-equity situation, is one of the best spots in poker. Getting a hand like AA on the button against competent players
in the blinds is just about as pretty as poker gets. You have the best of both worlds. Many players expect you to be more aggressive on the button and will pay you off with weaker hands.

Getting good at analyzing your steal equity both preflop and postflop takes experience and a good grasp of the concepts discussed in this book. I'll discuss these concepts more extensively later.

## General Relativity

The preflop street is an extremely important stage. It's where the battleground is set for the rest of the hand. Getting a good understanding of the preflop game is essential to a winning strategy. When speaking of preflop hand selection, it's been said "Play tight when others are playing loose, but play loose when others are playing tight." Well, the idea of loose and tight is relative. Very little, if anything, is static in poker. It's all dynamic based on your opponent's strategy. For beginning players, we must devise some core definitions for ideas like starting hands, bet-sizing, weak and strong holdings, and sound strategy ideas.

However, all these concepts are relative and need to mold to our opponent's thoughts. Sometimes, AK preflop is the nuts and other times it's trash and I'd rather have 74s. Sometimes, a full house on the river is the nuts and other times it's as good as 3 high. Sometimes a half-pot bet is large and other times it's small. These contradictions are defined by the analysis of the situation in which we find ourselves. The idea of tight and loose is no different. Sometimes playing a 30 VPIP is way too tight, yet other times it's far too loose.

When you have low steal equity, you want to keep your range tighter than your opponents. This is because the majority of
hands will make it to later streets or the showdown. Because of this, you want to do your utmost to make better hands than your opponent. The best way to do that is to ensure your range is stronger than his. However, what's a tighter range? It's relative to your opponent's range. If your opponent is playing 30 percent of hands, you're going to need to play less than 30 percent. However, if he's playing 90 percent of hands, obviously you can play a heck of a lot more hands than 30 percent. And you should. So, "Play tight when other's are playing loose" is normally pretty good advice, but don't think that tight is a static range.

When you have high steal equity, you want your range to be looser. Again, loose is a relative term; however, this time relativity is not based on your opponent's range. Just how loose you can be depends on the amount of steal equity you'll have. When your steal equity is incredibly high, you may be able to play any two cards because your cards don't even matter. If your steal equity is only moderately strong, then you'll have to snug up to a range that fits the situation.

## At the Table

I've played a bit of pool in my life and really enjoy the game. Watching an expert player is a real treat. I remember watching a player run the table and hearing someone comment "No wonder he makes all his shots, they're all easy shots!" Well, this pool player wasn't the luckiest player in the world. He was skilled at controlling the cue ball, so after he made a shot, the cue ball would be lined up in a spot giving him a good next shot. Before he even takes his first shot, a professional player often has a map laid out for how he's going to sink - in order - all of the balls. He has a plan and executes it in a way that gives him simple shots. Amateur pool players often find themselves needing to make difficult bank shots or other trick shots. This is because they
either didn't think ahead of time or do not have the skills to control the cue ball.

You need to have a plan in a poker hand. You can think of the preflop street like controlling the cue ball. Spend some time thinking about all the variables of showdown equity and steal equity in order to analyze situations preflop. You're trying to answer two questions.

1. Is this hand likely to get to the flop?
2. If so, what will the situation probably look like for me postflop?

As you become more skilled at this, you'll find you're putting yourself in better situations and the game starts to get easier.

I do quite a bit of personal poker coaching. ${ }^{14}$ Recently, I was watching a video of one student playing online. We came across two hands I want to share with you. Let's call my student Bob.

In the first hand, a rather loose player limped UTG, and two other players limped behind him. Everyone pretty much had about 100x, and so did Bob. Play folded to Bob in the big blind, and he had 99 . Bob raised to 4 x the big blind, and I had him press 'pause' on the video, so we could examine the situation. Obviously, the showdown value of our hand is strong. Given how the action has gone so far preflop, we almost certainly have the best hand right now. If I could press all-in preflop here and have everyone call with their hand, I'd be happy to do that. However, I can't. Pressing all-in with this much money behind against reasonably sane opponents is going to win the small pot right now. The few times we do get called will likely be by a strong hand lurking in the shadows and we lose a really big pot.

[^12]If we raise, what's our steal equity like preflop? When a seemingly sane player limps in early position, they normal have a stronger range than when they limp in late positions. This means I'd expect him to call rather often. So, if I raise and the UTG player calls, the late position players will be more likely to call. The UTG player often causes an avalanche and we'll end up in a bloated pot on the flop, out of position against three opponents. How do you think your fold equity will look postflop? At least one overcard will hit on the flop about $80 \%$ of the time. You'll be holding a marginal hand out of position against three players. C-betting in that spot is normally a very bad idea. Because you're out of position, you can't even control the action. If you check, one of the three players is likely to bet the flop, and you're normally left with the one option, a fold. Even though we have a strong hand, our steal equity is so low it forces us to play more passively in this spot preflop.

The second hand went like this. The UTG player limped and play folded to Bob on the button. Both players had 100x the big blind in their stacks. The UTG player was a special one. He was playing almost every hand preflop. A couple hands previous, he had check/called three large bets from Bob. Bob had top pair and he ended up with 22 on a board with five different overcards. Apparently, the UTG player doesn't like to fold postflop either. So, that's all we've seen so far. Now, let's get back to the hand in question. We're holding K3s, and both the blinds were extremely tight players. Bob folded, and I had him press 'pause' on the video, so we could examine the situation.

Since our opponent is both loose preflop and sticky postflop, our steal equity is obviously quite low. Most of the time, K3s would be considered a rather weak holding. However, the value of our starting hand isn't static. It's dynamic based on our opponent's range. Considering our opponent's range is probably about any 2
cards, K3s actually has some fairly strong showdown value even as K high. If we flop a King, we're liable to make a fair amount of money in the hand. The hand is also suited, which can add a little more value if we did decide to show a little aggression postflop. We do have the button which allows us to dictate the action early on in the hand, even though it doesn't give us much fold equity in this situation. We can either c-bet or take a free card on the turn or river, since he's most likely to check to us. Also, if he's paying any attention, when we bet before, we had a good hand. So, perhaps our image will give a little more fold equity than we had before that hand. Our stacks are 100 x , so that might give us just a bit of fold equity too. Considering the whole picture here, it's a great opportunity to build the pot and get the players in the blinds out of the hand, isolating the bad player for some profitable postflop poker.

## Open Limping

To open limp means you are the first to voluntary enter a hand preflop and do so by simply calling the big blind instead of raising. Among good cash game players, this is a bit of a faux pas. The normal recommendation is to raise when you are the first to enter a pot. There are good reasons for this. You give yourself the chance to simply take the blind money. And, while NLHE is a big bet game, do not underestimate the value of winning lots of small pots.

Yet another benefit of opening for a raise is it increases your steal equity postflop. You gain what players call 'the initiative' in the hand. This means players are responding to you. You're controlling the hand and dictating the action. You're the one applying the pressure in the hand. It's hard to make a hand on the flop, so this often leaves your opponents surrendering the pot to your aggression on the flop. All good things. However, this concept can be taken too far. You still need to answer - always -
the two questions preflop. Here are a couple situations to go against the always-open-for-a-raise mantra.

You're playing a $\$ 1 / \$ 2$ game in your local casino. Most everyone is playing with $\$ 200$ or $\$ 300$. Players are very loose preflop with many players seeing the flop, even for a large preflop raise. Also, players don't like to fold much of anything postflop. You're UTG and get dealt 33 .

What should you do?
Well, you definitely don't want to throw away a pocket pair in this game. Hitting a set against these players will be super valuable, as they'll call your huge bets postflop with weak holdings. However, think about your situation if you raise preflop. You're likely to get multiple callers. You'll only flop a strong hand about $12 \%$ of the time. That means almost $90 \%$ of the time you'll be staring at flops you just hate. Then you'll look up and realize you're out of position against players who hate to fold. Your only reasonable option will be to check-fold to almost any bet the vast majority of the time. So, raising isn't that attractive. Calling is certainly the most attractive decision in this situation.

Here's a slightly different example where just calling is the best option. It varies from the first as we're not opening the pot. Same table as the 33 example. You're on the button with T7s. Two very loose players limp in and it folds to you. Both players have taken a few big losses and now only have $\$ 80$ each.

What should you do?
Well, seeing a flop in position against these players is probably going to be a profitable venture. However, let's examine your situation if you raise. A pot size raise would be $\$ 11$. If you make that raise, the blinds fold and both limpers call, the pot will
be $\$ 36$. The players will both have only $\$ 69$. With an SPR that low, you're likely to have extremely low steal equity. With low cards like T7s, this is fairly bad news. While the holding can make strong hands now and then, it will rarely win without improving in some way. So again, just calling preflop is the best option here.

## The Bread and Butter

One of my favorite poker books is Elements of Poker by Tommy Angelo. Primarily a book about the mental aspects of poker, Tommy does mention a situation he coins 'the bread and butter' of playing poker. Quite simply, it's having the initiative in a raised pot while playing in position. And now you can understand why. You've captured many of the aspects to create high steal equity, and it's for a pot that's already built and ready to escalate if you want it to. It's a recipe to print money. You want to try to get in that bread and butter spot as often as you can. The ability to do this hinges on your ability to understand the dynamics of the table. Where are the tight players? Where are the loose players? As the button moves around the table, your situation can change dramatically with every hand. The key is being able to answer those two vital questions accurately.

## Quiz

(Answers on pg. 165)

1. What are the two ways you can win a pot?
2. What are the two types of equity to consider during a hand?
3. How can you make a hand with little showdown equity profitable?
4. What are five important factors to consider when evaluating the strength of your steal equity?
5. Against what type of opponents do you have steal equity?
6. How does position effect steal equity?
7. When you have low steal equity, how should you adjust your starting hand range?
8. What determines how loose you can be preflop?
9. What two questions are you trying to answer on the preflop street?
10. What is the bread and butter of poker?
11. You're in a $\$ 2 / \$ 4$ game that only has six players. Everyone has $\$ 400$. All the players are very tight; however, the table features an extreme calling station in the big blind. You're UTG with Q8s. What should you do?
12. You're still at the same table as question 11; however, now the calling station is on the button and you're in the cutoff seat. You have KTo, and the action has folded to you. What should you do?
13. Again, you're at the same table as question 11 and 12; however, now you're the button, and the calling station folded in early position. Everyone has folded to you, and the blinds are very tight players. You look down and see 950 . What should you do?
14. At the same table yet again, but now one of the tight players has raised from UTG to $\$ 20$. He just lost the previous hand and started the hand with $\$ 120$. The calling station has folded with everyone else, and now the action is to you on the button. You look down to see QJs. What should you?
15. The same situation as number 14 ; however, now the calling station in middle position has called UTG's raise. While UTG only started with $\$ 120$, both you and the calling station have over $\$ 400$. What should you do?

## Exploiting a Range

## Relativity Strikes Again

In the section on range shapes, I spoke about weak, marginal and strong parts of a range. As we discuss how to respond to different range shapes versus different types of players, it's important to understand these are relative terms. And more importantly, they are not defined by you. While we may consider second pair to be a marginal holding in a given spot, our opponent may, for whatever reasons, consider it quite strong.

As we talk about the shape of a player's range and how to exploit that, we want to be thinking about that range through the lens of his perception of hand strength. That lens can be tweaked, not only by his perception of his static hand strength, but also by his interpretation of our actions. We'll need to consider those thoughts before we decide how to play exploitatively. We may deduce the correct hand range but, if we don't understand how he views those holdings, we're likely to make some big mistakes. So, the question is "How does my opponent shape his range." This is the heart of accurate assumptions. Climbing into your opponent's mind, thinking like he does, you'll try to comprehend his range, how he views it, and what actions he's likely to take as a result of his thinking.

## Cumulative Information

Every piece of information we gain allows us to get closer and closer to our opponents' most likely hands. As we gain more useful information, his likely range gets smaller and smaller. This fact accentuates the importance of the later streets in the game, the turn and river. The river is probably the most
important street in the game. After the river, we have all the information we can have in the hand. Also, someone (if there is no tie) has $100 \%$ equity. Also, because of the way the pot grows exponentially in NLHE, bets are almost always the biggest on the river. You can see how these three factors make the river a very important street. This is a big reason why experts want to play with deeper stacks against poor players. Deeper stacks allow larger bets on the later streets when the expert has the most information about his opponent's range.

Not only is the process of hand-reading cumulative in a hand, it's also a cumulative process as we break down an opponent. The more we play with them and examine their game, the better our assumptions will be against them specifically. When we become expert at understanding an opponent's range, we can use mathematics to analyze the best play against that range and develop a huge edge against them. Let me show you this process in action.

Remember the likely nit from page 27 ? We've played with him a few more orbits now. His UTG opening range shapes up to about $8 \%$ of hands. We've seen him open with 33 , so his normal UTG opening range seems to be about $22+$, AQ + . We saw him fire a very small c-bet on a dry flop and then give up a couple times again. Also, since that hand, we've seen him c-bet large with top pair on a dry board. So, he appears to have a bet-sizing pattern we can use against him.

Take a couple minutes before moving on and think about how you can exploit his tendencies.

Let's say he opens from UTG once more, and play folds to you on the button. You look down and see K2s. Now, this hand is trash against his range. However, our hand just doesn't matter that much here. We'll find out exactly what he's up to on most
flops by looking at his bet sizing. Not only that, we're likely to pick up some money from him on the flop since he seems to continuation bet almost all the time. So, you call. The flop is Q $\mathbf{7} 2 \mathrm{t}$. He bets $\$ 8$ into a $\$ 16$ pot. You could call and see if he gives up on the turn. But, why not just raise, take the money and be done with the hand? Most nits won't adjust to any raise size, especially when out of position. You can likely minraise here and get him to fold 33-66, 88-JJ and AK. Given the fact he likely would have bet bigger with AQ and $\mathrm{QQ}^{+}$, we're likely going to watch him fold close to $100 \%$ of the time. We'd be risking $\$ 20$ to win $\$ 30$ pot, so we only need him to fold $40 \%$ of the time. Given our assumptions about his strategy, there's no reason to raise any larger. There's also not much of a reason to allow the hand to continue any further. Even if he does call with a hand like JJ, we do have five outs against that hand. His predictable, static strategy allows us to take advantage of his very weak range. And that's how we can attack the shape of his range.

So, let's look at how to attack different range shapes versus different types of opponents.

## Range Responses

You can save a little bit of energy at the table by simply recognizing lines certain opponents take that reveal the shape of their range. Then you can know ahead of time how to exploit that range shape against that particular type of opponent. I'll get you started thinking in these directions.

## The Bell-Shape Range

We already discussed what the bell-shaped range is all about. Our opponent's range is almost completely comprised of what he
perceives to be marginal hands. Let's look at the bell-shaped range verses different player types.

As I've discussed, you'll have higher steal equity against players who like their money and need a good hand when the pots get large. These players are normally the nits and the TAGS. These types allow us to quickly identify a bell-shaped range. Most of the time when these players have a bell-shaped range, they are going to be playing quite passively. The exception would be if the stack to pot ratio is very small; in that case, many players will play aggressively with marginal hands. Outside of that exception, most of these players are trying to control the size of the pot by keeping bets smaller, checking on a street or two. Generally, they hope to show the hand down and perhaps get a little bit of value from their marginal hand. They're trying their best to follow the mantra "Big pots for big hands and small pots for small hands." This is even more reliable on very wet boards since most players want to charge draws, and build pots quickly with very strong hands on wet boards. So, when they're playing more passively on wet boards, it's even easier to identify their range as bell-shaped. Let's look at a couple examples of identifying a bell-shaped range and how to respond.

It's a $\$ 1 \$ 2$ NLHE game and everyone has $\$ 200$. A nit player opens from early position, and you decide to call on the button with $7 \$ 8$. The flop is $\mathrm{Q} \uparrow \mathbf{7} \leqslant$. Your opponent checks the flop, so you decide to bet $\$ 10$ into the $\$ 14$ pot. He calls. The turn is the 5 , and he checks. You decide to check as well. The river is the $2 \boldsymbol{\downarrow}$, and he checks again. Let's pause for a moment and shape his range.

Without even going street by street and chiseling his range, it's easy to see he's not proud of his hand. As I told you, nits like to get the money in quick with their big hands, especially when the board has draws like this. They wait and wait for the monster
hands and they do their best to get paid when they have one. He's done nothing but check, check, check. He did check/call your flop bet out of position, so it's likely he has some sort of hand. These types rarely raise in early position with suited hands like T9s, so he really has very few flush draws. Most of the time, you'll see a nit take this line with pairs somewhere between the 7 and Q. I'd bet he has a hand like 88 -JJ.

Now, stop and think about your hand.
Inexperienced players look at their hand here and think, "Well, I have a pair; let's check and see if it's good." Let me save you the suspense. It's not. Of course, sometimes you'll check and be surprised this player went outside his normally tendencies and check/called the flop with something like AJ. However, that will certainly be the exception and not the rule. The point is, your hand is trash against virtually his entire range.

What should you do?
The answer is to bluff. Yes, turn your pair into a bluff.
How much should you bluff is the next question. Well, the pot is $\$ 34$ right now, and you both have about $\$ 180$ left. How about a $\$ 20$ bluff? He'd need to fold to your bet about $40 \%$ of the time. Will he do it? Maybe, maybe not. But, let's dig further. Here's what his hole cards are confessing.
"Dear opponent. I really want to show this hand down. I like it, but not that much. I'll go ahead and play a small pot. Please, let's just play nice, keep the pot small and turn the cards over to see who has the best hand."

This should be your reply.
"Dear opponent. I appreciate the fact you're out of position and have a marginal hand. That is always a tough spot. I also appreciate you want to just keep the pot small and see a showdown. However, that's just not going to happen. This is going to get very expensive for you, if you want to see a showdown."

How about betting $\$ 100$ into the $\$ 34$ pot? That sounds about right to me. That's the way you attack a bell-shaped range that's begging you to keep the pot small. Use your stack like a weapon and crush their hopes of getting to showdown cheaply. The nit will likely fold $100 \%$ of his range to this bet. You can run the math as long as you like, but it's hard to beat having your opponent fold $100 \%$ of the time. In these situations, I would say your $\$ 20$ bluff is a losing bluff. The hand has really played out just the way he would like it. Only two streets were bet and the bets weren't that large. You're probably going to get called by a hand like TT quite often, especially if you're viewed as an aggressive player.

Now, some players get concerned here and say "But, what are we really representing?!" My response is this. When a nit gives you his story, you don't need one. He just loves his stack too much to make a huge call with his bell-shaped range. He'll fold and wait until he has the nuts next time. Only thing he doesn't realize is we know he never has the nuts in that situation.

Another example could be this. Again, we're in a $\$ 1 \$ 2$ NLHE game, and everyone has $\$ 200$. Play folds to the TAG button who raises pot. The small blind is an absolute calling station. He's the reason everyone is at the table, and he calls. So, you call in the big blind with $9 \diamond T *$. The flop is T $\mathbf{7} \boldsymbol{*} 2 \boldsymbol{*}$. The flop checks around. The turn is the $\mathrm{A} \uparrow$. The small blind checks, and you decide to bet $\$ 14$ into the $\$ 21$ pot. The buttons calls, and the
small blind folds. The river is the 3 . You check, and the button bets $\$ 20$ into the $\$ 49$ pot. Let's take a look at what's gone on.

The button player is much more aggressive player type than the nit in our previous example. He has position in this hand, and there's also a very bad player in the hand who loves to call. A TAG will be quite aggressive with a four flush on this flop, as well as any top pair or better hand. His check lets us know right away he has a weak holding. After we lead the turn and he calls, it's very likely he has an ace. Our bet into both of them, especially with the calling station still in the hand, lets the TAG know we probably aren't just out-right bluffing. We probably have a pair or a strong draw. The Ace doesn't bring a legitimate draw either, so his range is probably looking like a split pair of aces and that's about it.

The river is where the hand gets interesting. TAGs can make much better river value bets than nits. He's very likely to make some small river bet with a hand like AT or better, since we can certainly have worse pairs here. His small bet is a good sign he does not really want to invest a lot of money in the pot; he wants us to call with a fairly weak range. Our response is the same as the last hand. It's time to check/raise. He hardly ever has a flush here, but we can often have one ourselves. Against this type of player, we have a greater need represent a hand, and we certainly can. We also can clearly see he has a bell-shape range and wants to keep the pot small.

What about the size of our raise? Well, this is different than the last situation as well. It's probably overkill to make the bet absurdly large like we did before. This player is unlikely to call a normal-sized raise in this situation. The pot was $\$ 49$, and he bet $\$ 20$. So, a pot-sized raise would be around $\$ 100$. This opponent would probably realize he needs to be good $33 \%$ of the
time to call here, and that's almost surely enough to make him fold nearly every time. ${ }^{15}$

The LAGs, calling stations and maniacs make identifying a bellshaped range much more difficult. Take the calling station, for example. He rarely shows aggression, regardless of his holding. If he check/calls a couple streets, what does that tell you? It doesn't tell you much of anything, since that's how he plays almost every type of hand he can hold. He can have weak made hands, weak draws, medium strength hands, strong hands and strong draws. Since his actions are almost always the same, they tell us little about his range. So, you operate on a flat range against a calling station most the time, so we'll address them later.

The maniac can also make it difficult to recognize a bell-shape range, except with the opposite actions of the calling station. His tendency is to let the chips fly. Many of them will jam the chips in with middle pair just as quick as they will with 7 -high. So, again, when they take their aggressive actions, it's often difficult to really pin them down on a range shape.

The LAG is a bit similar to the maniac but, as I mentioned, you'll often need to rely more heavily on specific player reads with LAGs, instead of being able to neatly categorize their play.

## The Weak Range

Again, the weak range is when our opponent's range is almost completely comprised of what he perceives to be weak hands. This is a pretty straight forward range to identify and play against. The opponents are simply waving a white flag, and the

[^13]first one to put a chip in the pot will normally just take it all. Your steal equity is extremely high against this range shape, so your cards will matter very little. If the river has not yet been dealt, it's often a good idea to just toss out a small bet and just take the money, almost regardless of your hand strength. ${ }^{16}$ I often compare this to walking down the street and finding a quarter. Just bend over and pick it up.

If the river has been dealt, you'll want to consider your hand strength. Here are some general rules based on your hand strength. If you have a marginal holding, but still likely have the best hand, it's normally best to just go ahead and check it down. There's no sense in turning the best hand into a bluff in these situations, since only better hands will call you, and your opponent will have one from time to time. If you have a strong hand, it's normally best to just bet. You want to give someone a chance to make a call with something weaker. It's always disappointing when you have a huge hand and realize your opponents have weak ranges, but that's just how it goes sometimes.

If you have a ridiculously weak hand on the river and everyone is showing signs of a weak hand as well, it's normally best to try to pick up the pot with a bet, since you'll likely lose every time at showdown.

Let's look at a couple easy spots to identify a weak range. Play folds to the straightforward small blind, and he completes.
You're in the big blind, and everyone has 100x. Since this player is not tricky, it's unlikely he has a big hand. He probably just

[^14]doesn't like to fold his small blind and give you the blind money. He has some weak holding and wants to see a cheap flop. What's your best response? "Nope! Can't see a cheap flop, my friend." Toss in a raise with any two cards. Even if he calls, your steal equity is likely to be very high postflop, since unpaired cards will not flop a pair about two-thirds of the time. Often he'll just fold preflop. The rest of the time - usually - he'll check to you on the flop, you'll make a small c-bet, and he'll fold. It's all good. Just bend over and pick up the money.

Let's look at another example. You're on the button with $4 \star 5 \star$, and everyone has at least 100x. A calling station limps in middle position, and it folds to you. The blinds are pretty loose as well, so you decide to just call. The small blind folds, and the big blind checks. The flop is A 9 . Both players check to you. Your hand is certainly weak here, if anyone calls your bet. However, no one has shown any sign of being interested in the hand. There are virtually no draws on the flop, so they likely have very weak ranges. We can see the white flags waving and the message is "Someone please bet, so this hand can end and we can all move on to the next one." Your response should be, "Sure thing." Though you have a pair, if you get called you'll almost certainly not have the best hand. Even still, you might as well bet and end the hand. Even if someone does call, you probably have five outs if you're behind, and you're likely to see both the turn and river without any further betting if you wish to. There's little value in checking it down to showdown, since giving them two more cards is likely to give one of them a better pair by the showdown. Bend over and pick up the pot.

By the way, you might as well do the same thing with $7 \star 8 \star$ or $\mathrm{K} \upharpoonright \mathrm{T}$. It's all pretty much the same here. As I mentioned earlier, if you had a hand like A9s here, - it would have been a good idea to raise that preflop. - you probably should just check
and let someone catch a pair on the turn or river, so maybe they'll give you a little something.

The maniac is an exception in identifying a weak range. A common theme among the purebred maniacs is they often only bet small when they have a big hand! While they're normally betting pot size, more than the pot or even shoving all-in with an overbet, suddenly when they have a good hand they start making very small bets with the idea "I don't want to scare him away." When you see a maniac (or any player) following this pattern, you'll quickly be able to identify a weak range by simply watching him bet large in spots where if he had a strong hand he'd be betting smaller. Finding this tendency is one of the most valuable pieces of information you can find at the table because you're not winning small pots against a weak range, you're winning big ones. You'd normally never win large pots with hands that weak. However, it's going to take courage and confidence to make this happen. The reasons maniacs can make money is because people's courage gives out on them. Let me give you an example.

You're in a $\$ 2 / \$ 4$ game, and everyone has $\$ 400$. A maniac is running over the table with chips flying everywhere. There are no small pots at this table; he just won't allow it. You've seen a couple hands he exposed that's allowed you to pick up the pattern he's betting huge with bluffs and then slowing down with better hands. So, here we go again. He opens the pot from early position to $\$ 30$. It folds to you on the button, and you call with $K \leftrightarrow T \vee$. While this is a large raise to call preflop, you know your implied odds are huge, if you hit a pair. The blinds fold. The flop comes down $A \leftrightarrow T * 3$. He bets $\$ 40$ into the $\$ 66$ pot, and you call. The turn is the $\mathrm{Q} \downarrow$. He shoves his remaining $\$ 330$ into the $\$ 146$ pot. Wow, that's a lot of pressure! However, given what we know about this player's tendencies, he almost certainly
doesn't have a flush here or any big hand for that matter. He's probably doing his thing and trying to make you fold. You need $41 \%$ equity against his range and almost certainly have quite a bit more than that against his likely weak range. Stick the money in with your $+\mathbf{E V}$ situation and let whatever happens happen. If the river is the $\mathrm{K} *$ and he flips over $\mathrm{J} \leqslant 2 \boldsymbol{\downarrow}$, be prepared to say in good sportsmanship, "Nice hand." Then, rebuy in the game and get back to business. If you're not prepared to do that, you better find a different table where you're more comfortable.

Notice also against this maniac, we were just calling along with our hand. Against very aggressive players with weak ranges, it's normally best to let them keep the initiative in the hand. They like to bluff, so let them do that with their weak range. Against aggressive players, you get more value from their weak range by playing your made hands more passively. Against more passive players, there's little value to be gained by playing passively against their weak range. So against the passive players, it's normally best just to show a little aggression and just take the current pot.

## The Strong Range

Of course, the strong range is when our opponent's range is almost completely comprised of what he perceives to be strong hands. Again, this is a pretty straight forward range to identify and play against. It's normally characterized by aggressive betting patterns. The opponent is telling us he has a hand, and he's looking to win a big pot. Your steal equity is extremely low against this range shape, so your equity against his range is nearly all that matters. It's almost always a terrible idea to get fancy and try to make a player fold a strong range. You're going to showdown virtually all the time, and you better have enough showdown equity against his range to make it profitable.

My mind goes back to a live $\$ 2 / \$ 5$ game I played in a new card room. I had $\$ 500$, and so did the loose, more passive player to my right. He wasn't playing every flop, but he was seeing about half of them. He did seem to know his way around the poker scene, understand a little about position, and I'd seen him raise preflop with a couple premium hands. I also saw him call a bet instead of raising on a river where he had a really large hand, but not quite the nuts. In this hand, he was UTG and made a $\$ 15$ raise. That was certainly smaller than the normal opening size the table had developed earlier in the game. Next to act, I looked down at KK. While I knew the UTG player likely had a strong hand, I certainly wanted to build this pot for some good value. I made it $\$ 60$. This is bigger than a pot size raise, but I felt he'd call to see a flop with most of his range, which was strong. Everyone else got out of our way, and the action got to him. He paused a little bit and then said, "\$120." Well, that's just about as small a raise as you're permitted to make. Didn't take me long to fold the hand. My ego got the best of my better judgment and I tossed them face up in the muck pile. The table gasped all at once. "Wow!"everyone murmured. They all started at me, so I said "He has aces." Then the stares turned to him, but he was still busy staring at me. A few players then started begging him to turn over his cards. He refused for a couple seconds but then turned over his aces one at a time. "Did you see my cards?!" he finally exclaimed. "Of course not," I said. "I wouldn't have given you $\$ 60$ if I had seen your cards."

Now, don't go folding KK every time you get heavy action preflop. I've been dealt KK over 13,500 times, and I can count on one hand how often I've folded them preflop.

There were a few factors that made his hole cards scream so loudly I simply couldn't ignore them. He's a more passive player, understands a bit about position, and apparently only gets
really busy with raises when he has the nuts. His initial raise size did send off alarms to me. These types of players do tend to raise a little smaller when they have much bigger hands. They "don't want to lose customers," you'll hear them say. Since he seemed rather familiar with the poker table, I figured he realized the $\$ 15$ open was about $\$ 10$ smaller than what the standard open had been. However, I still felt there was enough value against hands like QQ and AKs, to go ahead and get the pot going. Now, since he's aware of position, he would most likely know that when I'm reraising him from early position, I've got a big hand, too. I'd not played many hands to that point, so he had no reason to think I was an aggressive player. When play got back to him, even though he almost certainly knew I had a big hand, he again reraised. Also, he kept with the very small size that tries to lure a player deeper in the hand. At that point, it became very clear I was dealing with the nuts. I didn't have proper odds to try to flop a K, and there certainly wasn't enough money in the pot to justify getting all-in with only $20 \%$ equity. Trying to see a flop and make him fold later is a terrible idea since the SPR would be so low, and he has a strong range. The only option is to fold. And to those not accustomed to the information battle, it looked like magic. I knew it would, so I couldn't resist hosting the magic show. Shame on me. But, it was almost time to leave anyway, and I only go visit that card room about once a year. So, very little edge was lost and it made for some good entertainment for everyone.

I want to touch on an important concept here. There's a fine line of distinction in how the money gets all-in when you're going for value. Notice these two example hands. In both you are playing $\$ 1 / \$ 2$, and everyone has $\$ 200$. The villain is a borderline nit. He normally has a strong hand when the pots get big. Both examples start the same way preflop. You open for $\$ 7$ with $A<Q$ from middle position. It folds to the TAG button, who
calls. The villain here is the big blind and he calls as well. The pot is $\$ 22$, and the flop is A $\mathbf{7} \mathbf{2}$. Here are the different postflop examples.

Example 1: Play checks to you, and you bet $\$ 22$ into the $\$ 22$ pot. The button folds, and the big blind calls. The turn is the Ta. You bet $\$ 60$ into the $\$ 66$ pot. The villain calls. The river is the 7. The big blind checks, and you move all-in for $\$ 111$ in the $\$ 186$ pot. He calls.

Example 2: It checks to you, and you bet $\$ 22$ into the $\$ 22$ pot. The button folds, and the big blind calls. The turn is the Ta. You bet $\$ 60$ into the $\$ 66$ pot. The villain calls. The river is the 7 . The big blind shoves. The pot is $\$ 297$, and you have to call \$111, which you do.

Even though in both situations you got all the money in the middle with the exact same cards, same opponent and same board, the situations are vastly different. Example one is most likely making money while example 2 is mostly likely losing money. What's the difference? The difference is in example 2, you were able to shape a strong range for the villain. In example 1 that never happened. Let's examine the examples.

In example 1, you made a fine c-bet with a strong hand. The board does have a possible flush draw, and there are plenty of weaker hands that can call. There's lots of value in a c-bet. Once the big blind calls, it's quite unlikely he has a big hand. Again, they tend to get the pot going early in those situations, so he'd be likely to raise a big hand after you bet the flop. It's possible for him to have some weaker suited aces, some flush draws, some suited 7 s and a few other possible hands. The turn card brings another flush draw. While AT just took the lead, there is still plenty of value in a bet to get calls from hands like the suited aces that just picked up a flush draw, the suited 7s that just
picked up a flush draw as well as some aces like AJ that just don't want to fold yet. (Obviously, it's important to know if he would have reraised with AK preflop, but I'd assume most players like him would have done so, unless he's given me information to think otherwise.) Your bet is a good size because it makes the SPR such that folding on a lot of river cards will be difficult for him with a hand like AJo.

When the river comes a 7, obviously his suited 7s just hit trips. He may check with those hands, but here's the crux of the information about nitty players. It's all about how they tend to play the river out of position. Usually, when they hit a big hand, they lead right out for a big bet. They're too afraid you're going to check and then they won't get your money. They don't make thin value bets and would rather you bluff sometimes and then after you bet, they'll decide if they want to make the call or not. And that's the big difference in example one. Yes, you're getting almost 3 to 1 on your money and only need to be good about $27 \%$ of the time. However, you're just not going to be good that often. While many times it's a mistake to put half your stack in a pot and then fold, this is an example where it's the right thing to do.

You may say, "Well, the only hand I really lose to here is one of his suited 7s." If that's the one that makes sense, that's what he most likely has. Whatever his range is here, AQ doesn't have the equity to call against his strong range. Sure, some of the time he'll surprise you by showing AJ, and you'll have to tweak your assumptions about his river play. But, that's not standard for these players types, so you have to go with what you have at that moment in that hand.

Another thing to note: some nits do wait until a draw doesn't hit before they put all their money in. It's a little bit different breed of nit that some people call a rock. They'll wait until they have
the nuts on the river before they really put lots of money in the pot. They'd rather wait to see the flush not come in, instead of charging people to draw to it. So, you have to be on the lookout for those player types as well.

Again, we need to make an exception for the maniac described in the section on weak ranges. Remember, many times a maniac will only bet large with their bluffs and will bet smaller with their strong hands. So, many times if they bet small, you know they have a fairly strong range. It's very counter-intuitive, but many times you can call with K high when he bets $\$ 100$ into a $\$ 50$ pot, but you have to fold middle pair-good kicker when he bets $\$ 30$ into a $\$ 50$ pot.

Again, don't get fancy when someone is telling you they have a strong range. Keep it simple and give your hand a fair evaluation of showdown equity versus his range to see if you can play the hand profitably to showdown or if you have to fold.

## The Polarized Range

As you've already seen, the polarized range is one where our opponent's range is virtually void of any holdings he perceives as marginal strength hands. They're either weak hands or strong hands. These ranges often show themselves on the river and with large bets. Large bets normally mean players are either trying to pressure you into a fold or they're trying to get a big payoff for a monster hand. However, the polarized range can also be recognized after you get some notes on a player. I've already mentioned one example - many players are prone not to make a c-bet in position with a marginal holding. For example, let's say they hold T 9 on the button and open the hand preflop with a raise. You call in the big blind. The flop is K 0 3 You check. Many players will simply check with bottom pair there. They have showdown on their mind and want to control
the pot. By removing a street of betting, they're more likely to keep the pot smaller. If you catch someone with that type of thinking, then you're prepared to catch them with a polarized range, when they do c-bet on these types of board textures.
Since they don't c-bet with their marginal hands, this means they either want to build the pot with what they consider a strong hand, or they're just trying to get you to fold because they have a weak hand.

There's no handy magic wand answer when playing against a polarized range. Your play boils down to the two keys to good poker. What are your assumptions about his strategy, and what's the best play? Your job will be to define the precise proportion of his polarized range. Does he have more weak hands than strong hands? If so, how much more? Or is it the other way around? Or, perhaps the polarized range is really quite balanced and he has a fairly equal number of weak hands and strong hands. Your decisions will take a good understanding of the combinations in a range. It will also take a fair amount of practice. If this is new ground for you, you'll want to review my material on ranges in my book Poker Math That Matters.

Once you get a good handle on the proportions of his polarized range, you'll need to examine the math of the situation. If your opponent has gone all-in, you're only options are to call or fold. You'll need to look at your reward to risk ratio. Let's say you feel your opponent's polarized range is even. It's about 50/50 with weak and strong holdings, as it is in Figure 6 on page 44. If you have a bluff catcher, you're going to have an easy call regardless of his bet size in relation to the size of the pot. Why? Because when you're going to win the pot $50 \%$ of the time, you should virtually never fold to an all-in when playing a cash game. A player can't make your odds worse than 1:1.

Let's take a little time to analyze this. Now, you're on the river, and the pot is $\$ 100$. Your opponent goes all-in for $\$ 100$, and you believe he has a polarized range. You're getting $2: 1$ on a call, so you will need to win the pot more than $33 \%$ of the time. How does this translate to the proportions of his range? The breakeven point would be if he had two times more strong hands than bluffs. If the range is tilted more towards strong hands than the two-thirds mark, then you'll have to fold. If it's tilted more towards the weak hands, then you should call. It's all about making accurate assumptions about the proportions of his polarized range and then analyzing the math.

Table 2 offers a quick way to determine the minimum combinations of bluffs a player must have compared to the combinations of bluffs given the reward to risk ratio. If your opponent has more bluffs in his range than indicated by this chart given his bet size, then you'll have a profitable call.

Table 2. Minimum combinations of bluffs compared to combinations of value based on your opponent's bet size for you to have a +EV call.

| Reward:Risk | Villain <br> Bet | Must be Good <br> $>$ | Bluffs Comp. <br> to Value |
| :---: | :---: | :---: | :---: |
| Risking x to win 1.5 x | 2 x Pot | $40 \%$ | $2 / 3$ of Value |
| Risking x to win 2 x | Pot | $33 \%$ | $1 / 2$ of Value |
| Risking x to win 2.5 x | $2 / 3$ Pot | $28 \%$ | $2 / 5$ Value |
| Risking x to win 3 x | $1 / 2$ Pot | $25 \%$ | $1 / 3$ of Value |
| Risking x to win 4 x | $1 / 3$ Pot | $20 \%$ | $1 / 4$ of Value |

Let's look at an example to show this concept at work. You're in a NLHE game with blinds of $\$ 0.50 / \$ 1$. Play folds to a LAG in middle position, and he raises to $\$ 3$. You call on the button with $\mathrm{A} \boldsymbol{J} \boldsymbol{\&}$, and everyone else folds. You have $\$ 100$, and the LAG has you covered. The flop is $\mathrm{A} \downarrow 7$. The LAG bets $\$ 5$ into the $\$ 7$ pot, and you call. The turn is the $\mathrm{Q} \uparrow$. He now bets $\$ 15$ into the $\$ 17$ pot, and you call again. The river is the $3 \downarrow$. He bets $\$ 45$
into the $\$ 47$ pot. You feel he has a polarized range here and are trying to decide what to do. Here's how I'd think about his range. The LAG opening from middle position can have a wide range of hands that include many suited hands as well as broadway hands and any pocket pair. Given the A high flop, it's very possible the LAG is going to make a c-bet with his entire range. From his perspective, this is a good flop to make you fold many of your possible holdings. The turn is a good card to put more pressure on you, if you're holding a 7 or a pocket pair like 66 or 88 that you decided to call on the flop. So, he may bluff the turn with nothing. However, there are also two possible flush draws on the turn. He can be semi-bluffing with any of his suited diamond or spade draws. And, of course, he can still be betting for value with strong hands like 22, 77, A2s, A7s, and other A hands. The river missed all the flush draws, but it did help a hand like A3s, 33 and 45s. Let's say we feel the hands he's betting for value are AA, 22, 77, QQ, AQ, AK, A7s, A2s, A3s, 45 s . How many combinations is that?

- AA - 1
- 22-3
- 77-3
- QQ-3
- AQ-6
- AK-8
- A7s - 2
- A2s-1
- A3s-1
- 45s-4

That's a total of 32 combinations. The villain made close to a pot-sized bet on the river, so we need to be good more than $33 \%$ of the time in order to have a +EV call. Looking at Table 2, we see he needs to have at least half the number of bluffs as he has
of value. So, he needs to have 16 combinations of bluffs in order for us to make money with a call. Do we think he has that many? It's fairly easy for him to have that many. Looking only at the suited diamond and spade hands that might semi-bluff on the turn, we can easily get to 16 combinations.

- 86s - 2
- 97s-2
- 98s-2
- T8s-2
- T9s-2
- J9s-2
- JTs - 2
- QTs - 1
- QJs - 1
- KTs-2
- KJs - 2

That's a total of 20 combinations without adding any other suited hands or other types of bluffs. If his bet were $2 / 3$ the pot, we'd only need to come up with about 13 combinations. What if his bet were $1 / 2$ pot? This is a tricky question because, as his bets get smaller, we start to lose the polarized shape of his range. Many good LAGs may bet smaller with a hand like QJ trying to get a little bit of value out of their opponent's weaker range. They often bet small so those weaker hands will call. When he bets smaller, often his range has now morphed into a bell-shaped range, or maybe even something resembling a flat range. Of course, as his range gets weaker, our AJ gets stronger, as it beats almost all of his marginal hands. Again, specific notes on what a player does with certain hands are very important and can help you make these decisions. Also, given these assumptions about villain's range, he can't even bet large enough to make you fold in this hand. The pot is $\$ 47$ and he only has $\$ 77$ left. You'll
find that with only 32 combinations of value, and over 20 combinations of bluffs, he would have to bet two times the pot before you'd have to fold. Notice also how huge an impact an unpaired hand can have in the bluff range. A hand like KTo would be 16 combinations all by itself.

If your opponent's bet is not an all-in bet, then you're also going to need to consider raising. The only time to consider raising against a polarized range (assuming you don't have a stronger range than the strong portion of your opponent's polarized range) is when your hand is weaker than most of his bluffs. You'll need to examine your reward to risk ratio and see if you have a profitable play in a raise. However, this brings up an important concept, shaping your bluff catchers.

This is a bit of a rabbit trail, but it's important, so I'm going to chase it. In the notes section I talked about trying to find out if your opponent can turn a hand like a pair or Ace-high into a bluff. Playing against a polarized range really highlights the importance of this information.

Let's say you're on the river against an aggressive player. He's just made a large bet on the river, and you're quite certain he has a polarized range. You need to figure out how strong your hand needs to be in order to beat his bluffs. If he can bluff with a pair, then you're going to need to have stronger bluff catchers. Let me give an example, so this is more clear. Imagine a player will never bluff with a pair or A-high. However, you're on the river, and he's shoved. Notice that K high will then beat all his bluffs (assuming he doesn't have a K with a better kicker). However, if our opponent can turn A-high as well any pair into a bluff, K-high starts to lose a tremendous amount of value as a bluff catcher because it loses to many of the opponent's bluffs. Now you can see the value in a simple note like "checked back A-high on the river after I called flop and turn."

Now, returning to our initial example in this section where our opponent had T 9 on page 101, we'll add some information and examine this hand as well. This is a $\$ 1 / \$ 2$ game, and we both started with $\$ 200$. Villain was on the button when he raised, and the raise size was $\$ 7$. We called in the big blind, so the pot is $\$ 15$. We've classified our opponent as a TAG. We already learned this opponent doesn't c-bet often with marginal hands, especially on a dry board. So, when he c-bets on the K flop, we are quite sure the shape of his range is very polarized.

What about the proportions of his polarized range? A key to understanding the proportions of his polarized range is to recognize that he opened on the button. Aggressive players understand position and will normally raise on the button with a wide range when everyone else has folded. It's just a really profitable spot because the blinds have to fight back often to make it unprofitable. So, the button is likely to have started with a really wide range preflop. Some good players even raise any two cards in that situation preflop. Let's be conservative and say he raised with the top $40 \%$ of hands. Now, if he'll only bet strong hands or bluffs on the flop, how many strong hands do you think there are on that flop for that $40 \%$ of hands? Only about $20 \%$ of that range has hit top pair or better. To make quick work of this type of analysis, you can use software like the Combonator, which you can find at www.combonator.com.

The proportions of his range are easily defined. His range is overwhelmingly weak. How do you want to respond? Well, there are plenty of options. For the most part, if you don't have much of anything, just check/raise him here, win the pot and move on. If you have a strong hand and you feel he'll show more aggression on future streets if you call, then you'll probably want to just call and allow him to put more chips in the middle with his weaker hands. This is the essence of slowplaying.

## The Flat Range

The flat range is an interesting shape to play against, as our opponent's range is comprised of all the hand strengths. When someone plays different hand strengths in the same manner, it becomes difficult to narrow their range. This shape occurs often if you're playing against a lot of calling stations. They check and call your bets with all sorts of hands. Their actions give you little information. Also, every now and then, a rare breed of a maniac will come around who throws in lots of chips regardless of his holding.

Against the maniacs and calling stations, you're simply going to have to play your hand as it holds up against your opponent's entire range; in extreme cases, this can be every possible hand. If you're against a maniac who will fire a pot-sized bet on every street with every hand, you will need to understand what values certain holdings have against any two cards. A holding such as bottom pair is often doing really well there. However, let's look at a much more common example.

You're playing online in a $\$ 1 / \$ 2$ game. A calling station with $\$ 100$ limps UTG, and play folds to you on the button. You have A $8 \downarrow$, and raise to $\$ 10$. Only UTG calls. The flop is $\mathrm{K} 8 \leqslant 6$. UTG checks, and you bet $\$ 17$ into the $\$ 23$ pot. UTG calls. The turn is the Q*. UTG checks.

What should you do?
Well, we simply know nothing about this calling station's range. He can have anything from KK to 45o. His actions simply have not given us any information to start shaping his range. So, we have to examine how our hand is doing against an entire distribution of strong, marginal and weak hands. The answer is, we're still doing really well against his range. Even though this
player is a calling station, he'd have to be a super special breed to check/call the flop with a hand like Q $\downarrow$ as , so there's little reason to be afraid of the Q . The only hand that might have been helped is a hand like a $\mathrm{Q} \downarrow$. For the record, if he was the type to check/call the flop with Q $\downarrow$ 2 , there again would be little reason to be afraid of the Q. Why? Because if he's check/calling with a range that wide, then the Qs would again be a relatively small portion of his range. So, a pair of 8 s with an A kicker is doing really well here. We should certainly bet for value. We can decide what we want to do on the river when we get there.

Thinking about the shape of an opponent's range can help you make some quick, general decisions at the table without doing a lot of intense combinatorial math at the table. However, in the coming sections, I'll show you how to get even more creative at the tables.

Quiz
(Answers on pg. 169)

1. Through what lens should we view the shape of our opponent's range?
2. What are three reasons the river is the most important street when you're playing with deeper stacks?
3. What are the player types that allow us to quickly discover their bell-shaped range?
4. What should your normal response be to players who want to keep the pot small and see a showdown with their marginal hand?
5. What should your normal response be to players who are waving the white flag with a weak range?
6. What is almost always a terrible idea against a strong range?
7. What do large bets normally mean from most opponents?
8. Let's say your opponent has a polarized range and bet $1 / 2$ pot on the river. How many more strong hands than weak hands would your opponent need to have in order for you to have a breakeven call?
9. What information is very valuable when shaping your bluff catchers?
10. Against what types of players do you often run into a flat range?

# Advanced Concepts 

Against the Level 1 Thinkers

Remember, level 1 thinkers are only concerned with their own hand. They are not trying very hard, if at all, to figure out what cards you have. If making money is the reason you're playing poker, you want to find the level 1 thinkers. You'll be able to quickly pick up information to severely outplay them. There are two large, common mistakes I see my poker students making when playing against level 1 thinkers.

The first mistake is being concerned about detectable, exploitable patterns in your own playing. Don't be concerned about this because these players are not paying much attention to any of your patterns. If you're trying to get a weak hand to call, then bet small. If he's going to call often, then bet large when you want a call. Simply play the way that takes them the direction you want them to go. Don't worry about playing a balanced game of poker. If you have a large hand preflop and a loose player is yet to act, raise larger than normal. Raise to whatever size he's likely to call. If you have a speculative hand, but you still want to raise, just make a minraise and keep the pot smaller. Create whatever situation you want with your actions. Don't worry about leaking information. They're not listening. Even if they were, they wouldn't know what to do with what they heard if they heard it.

The second mistake is bet-sizing. Too many players play NoLimit Hold'em like it's Pot-Limit Hold'em. There is no rule that says you can't bet over the pot. There are many times when playing against level 1 thinkers I might bet two, three or four times the pot. When a player's mistake is to call with many
hands almost regardless of the price they're getting, you have to pound on that mistake.

Recently, a student of mine was playing in a $\$ 1 / \$ 2$ game. He had $\mathrm{A} \leqslant \mathrm{T}$ in the cutoff. Play folded to him, and he raised to $\$ 7$. The very loose, level 1 thinker on the button called, and the blinds folded. Both players started with $\$ 200$. The flop came down T $\mathbf{7} 5 \mathrm{~F}$. My student began to type in a $\$ 16$ bet into the $\$ 16$ pot. I stopped him and told him to bet $\$ 70$. " $\$ 70!? "$ he exclaimed. Thinking out of the box was a new idea for him. This opponent was going to have all kinds of reasons to call on this flop. All sorts of pairs and draws offer a very enticing flop for a player to continue further in the hand. Villain does not understand his reward to risk ratio in the light of his equity in the hand. If he'll call $\$ 16$, he'll more than likely call $\$ 70$. And, he did. This then left us with a $\$ 156$ pot on the turn with $\$ 123$ left in our stacks. The turn was the $\mathrm{Q} \downarrow$. This is an overcard to our pair, but it should concern us very little. We went all-in, and our opponent quickly called with $4 \diamond$. What a great result. ${ }^{17}$ So, we capitalized as well as we could on his tendencies.

Notice the difference in the thinking here. We're not betting large on the flop to try our best to make him fold a draw. We're not betting large on the flop to protect our hand. We're betting large on the flop to get him to put in as much money as we can with weaker hands. There are all sorts of cards to come on later streets that can scare him into folding a hand like $7 \boldsymbol{v}$. The K\& will be another card to scare his current pairs and straight draws. I chose $\$ 70$ in that hand because it split the hand up well into

[^15]two streets. With your bet sizing, you get to decide on how many streets you'll have money left to bet. With the $\$ 70$ flop bet, I made it very comfortable to get all the money in on the turn with only around a $3 / 4$ pot bet. Given the nature of the flop, having so many cards that could scare our opponent's worse hands, I wanted to end the hand on the turn. So, I sized my betting to accomplish what I wanted to do. Your bets are your weapons in NLHE. Learn to wield them to accomplish your tasks. Don't bet a certain size just because that's what you always do. Bet with purpose.

Always be attacking your opponent's tendencies. If they're calling too often with weak hands, make large bets with hands you normally wouldn't make large bets. If they're betting too much, allow them to make that mistake as well.

The following example comes from another student of mine. We were playing in a $\$ 0.50 / \$ 1$ game online, and had a maniac to our left. He had $\$ 40$, and we had him covered. He raised UTG to $\$ 3$, and the small blind called. Student had A in the big blind and called. The flop came $\mathrm{Q} \downarrow 7 \vee 5$. Amazingly, the flop checked through. The turn was the $9 \star$. Both the small blind and student checked, then the maniac bet the pot. The small blind folded, and we decided to call. We struck gold on the river with the 6. Before I could say anything, my student went all-in. And, that was certainly a mistake in this situation. Our opponent's mistake is to bluff entirely too much. When we shove, we cut him off from being able to make that mistake. We have to allow him to make his usual mistake. If he has a strong hand, he'll bet that, too, and we can then check/raise all-in. So, we need to check in this spot in order to allow him to bet with all his weak hands.

## Against the Level 2 Thinkers

While we love to play with level 1 thinkers, it's just not always going to happen. If you play a lot of poker, you're going to run into more skilled players. These players will be more adept at hand-reading and are thinking about your range and how to attack it. Playing against them could be an entire separate book; however, the most important thing is how to think when you're playing against them. The skilled player's perception of his strength is based on his perception of your range. And, we can use this against him. The villain is reading hands much the same way you are. What is he used to seeing? How can you flip this on him? How can you trick a good hand-reader?

I remember a hand I was playing in a $\$ 3 / \$ 6$ game. A very good player raised in early position to $\$ 21$ and play folded to me in the big blind. I had 3 3a, and I called. We'd both started with $\$ 600$. The flop came $2 \leqslant 3 \downarrow$. I checked, and he bet $\$ 30$ into the $\$ 45$ pot. I have plenty of options here. I can call, or raise to many different amounts. The board is draw-heavy, so I can have many different draws. I decided to go all-in, so I stuck my remaining $\$ 579$ in the $\$ 75$ pot. My move looked ridiculous. And, that's what the bet was all about. I knew it would look like I had a draw to my opponent; he would probably assume I was trying to capture as much steal equity as I could. I felt this would get him to call me with weaker hands than normal. And he did call me with $A \subset Q$. His call is certainly reasonable. The situation was perfect for my play since I knew he was able to read hands well. He was also willing to risk his money based on what he perceived my range to be. So, after the hand, I took a note that he had seen me check/shove with a set on a wet flop. In the future, I was planning on check/shoving my draws and then raising smaller with my strong made hands. You always have to stay ahead of the thinking game against the good players.

Another good idea is to be more loose and aggressive in situations where you are well-known to have low steal equity. Here's an example.

You're playing in a full ring game. Most of the players play fairly well and have a decent grasp of many concepts of the game. A good player raises from UTG and play folds to you in the big blind. Many times this is a very good spot for you to reraise. Here's the reason. Everyone at the table knows in a full ring game usually when an UTG player raises, he has a very strong hand. When you reraise from the big blind, your hand looks incredibly strong. Your opponent knows you know he is likely to have a strong hand. Yet, you're out of position and still reraising him. Most TAGs will fold even very strong hands as the UTG player. Suppose he's only continuing in the hand with the top $4 \%$ of hands. If you make a pot size reraise, he needs to fold $67 \%$ of the time for your reraise to be a profitable play. So, if he is raising UTG with more than $12 \%$ of hands, your reraise is a profitable play. Why is he only continuing with such a tight range? Because you are in a situation where he knows you know you have low steal equity, but you're reraising anyway. When you apply this concept, you should be confident your opponent's starting range is wide enough that you do indeed have enough steal equity to make the play profitable. If he continues to the flop, realize he likely has a very strong range and adjust accordingly.

A related concept is to take actions that show strength to a good hand-reader. Here's one of my favorites. I'm in a $\$ 2 / \$ 4$ game, and we all have $\$ 400$. Play folds to the button who raises to $\$ 14$. The small blind folds, and I call with J 9 in the big blind. The button is a good TAG. The flop is $K \vee>2$. I check, and the button bets $\$ 20$ into the $\$ 30$ pot. I call. The turn is the 8 . I check, and he checks. The river is the $3 \boldsymbol{v}$. I bet $\$ 30$, and he
folds. This is a risky play, but it's a great spot to trick a good hand-reader. There are simply no draws on the flop, so to a good-hand reader, you're going to have hit a pair on the flop when you call his bet. Since he's on the button, he can have a very wide range and is probably c-betting with a large portion of his range. Our call on this board tells our opponent we have a decent hand. We're able to take advantage of his perception of our range later in the hand.

Understand that you don't want to get carried away with these plays and miss out on value from perfectly fine decisions. For example, it's also a perfectly fine decision to fold the J9s when you've completely missed the K72 flop. However, be aware of when you are able to manipulate a level 2 thinker's perception of your range and take advantage of those opportunities. Don't fall into the trap of always trying to get fancy. Here's a perfect example, where I allowed myself to get too fancy and lost out on a lot of money.

I was in a $\$ 2 / \$ 4$ game, and we all had $\$ 400$. The TAG UTG player raised to $\$ 14$, and I called in middle position with 4* 4 . Two other players in late position called, and the blinds folded. The pot was $\$ 62$, and the flop came down $2 \uparrow 4 \vee$. The UTG player c-bet $\$ 50$. I thought for a moment and decided to be deceptive and called. The other two players folded. The turn was the $\mathrm{K} \boldsymbol{\vee}$. The UTG player bet $\$ 90$ into the $\$ 162$ pot. I called. The river was the $7 \boldsymbol{\varphi}$. He checked and I checked. He turned over A\&A $\boldsymbol{\wedge}$, and I won a medium -sized pot.

I checked the river because I believed that virtually no weaker hand would call my bet. When betting the river, you need your opponent to call with $50 \%$ more worse hands than better hands (from PMTM). I don't think that's even a remote possibility. So, betting would be turning my hand into a bluff, and there's no reason to do that either unless I believed he had many smaller
hearts I might be able to get to fold. However, I don't believe he has many of those at all.

Results aside, I was kicking myself as I stared at the amount of money he still had left. I allowed myself to get fancy in a spot where it just wasn't needed. I knew my opponent would be unlikely to think I had a set when I just called there. However, if a TAG bets that flop with a big bet into three other players, he has a strong hand. The flop is so draw-heavy he's unlikely to fold to any action I give him. I allowed myself to get fancy in a spot that just didn't deserve it, and it cost me a lot of big blinds. Important as it is to know how to trick good hand-readers, it's also important to develop good judgment about when it's time to get fancy and when it's not.

## Leveling Wars

Once you've started playing with very good players, you'll begin to hit the cycle of "I know he knows I know he knows." We call these leveling wars. Players try to think one level deeper than their opponent. Sometimes leveling will paralyze your actions as your brain is spinning with possibilities. For example, remember when I shoved with my set of 3 s on the $2 \downarrow 3 \downarrow 5$ flop? I took a note villain saw me do that and so I planned to use his info against him in the future.

However, if we play against one another for a while, he may realize I, too, am a very good player. Then I'll flop a draw and perhaps I'll think "OK, now is the time to shove my draw." But, then I could think "Ah, but he knows I know he knows he saw me shove a strong hand before. So, now he's anticipating me to shove weaker hands." You see how it can get confusing. When you find yourself in these situations, it's normally best just to keep it simple. Go with what information you believe the good player has on you and make the best decision given that
information. In other words, default to the "he knows" instead of the "he knows I know," unless you have really good reason to do otherwise. It takes an incredibly skilled player for me to go to very high levels of thinking. In the poker world, I assume my opponents are poor players until they prove me wrong. Until they show you they can think on level 2, assume they think on level 1 . With someone you know is a good player, until they show you they can think on level 3 , assume they think on level 2.

## Implied Odds

Thinking about implied odds is considering money left to be bet on future streets instead of looking only at the current reward to risk ratio. It's important to understand how the shape of someone's range impacts your implied odds. In general, when someone has a strong range, your implied odds are good. And conversely, when someone has a weak range, your implied odds are bad.

A perfect situation to see this is when you have a small pocket pair in the blinds. If a tight player raises from UTG, his range is likely very strong. This means your implied odds are going to be good. If you flop a set, there's a good chance you'll be able to get quite a bit of money from that player, since he will probably still have a strong hand on most flops. However, if play folds to an aggressive player on the button and you have a small pocket pair in the blinds, your implied odds aren't nearly as good. He has a very wide range that will not flop many strong hands. You may be unlikely to get much money from him if you flop a set.

When thinking about implied odds, you also want the players' tendencies and position. If you're in position, it's easier to manipulate the size of the pot to increase your implied odds. If you're out of position, it's more difficult. You don't know if you can go for that check/raise because you're not sure if your
opponent will bet. Your opponent's tendencies are also important to consider. Calling a flop bet with two overcards against a maniac can have excellent implied odds. If the turn is an overcard that gives you a pair, he's likely to keep firing bets as a bluff. However, calling that flop bet against a nit is normally a bad idea. If you turn an overcard that gives you a pair, he's now likely to have less than top pair. Don't expect him to go firing in more bets unless he has top pair beat.

## Paying for Information

Information on an opponent is so valuable, many times I'll pay to get it. Again, this is a concept that takes good judgment and you don't want to get too carried away and cost yourself more money than you can earn getting the information. Here are a couple examples.

Play folds to me on the button, and I raise to \$7, holding A*2. The big blind is brand new to the game, and I've never seen him before. He calls. The flop is $\mathrm{J} \$ 8 \mathbf{2}$. He checks. I bet $\$ 10$ into the $\$ 15$ pot, and he calls. The turn is the Ke. He checks. I bet $\$ 30$ into the $\$ 45$ pot, and he calls. The river is the $3 \uparrow$. He now bets $\$ 40$ into the $\$ 105$ pot. This bet really looks like a weak range and it's very tempting to make a bluff raise. However, it's normally a better idea to save the expensive plays until you have some information on a player. However, I would call here.

Of course, we only beat a bluff and need to be good about 28\% of the time. Difficult to say if we're that good or not, but for the sake of this example, let's say we're only going to have the best hand $20 \%$ of the time. Then, I'd be losing $\$ 3$ with my call. However, when I see his cards, I'm going to learn a lot about this player. I'll be able to use that information against him. Sure, he may see my hand as well, but I'm going to assume I'll use information much more effectively than he does. So, I'm willing
to pay the $\$ 3$ to see how he played every street in the hand. I'm convinced I'll be able to win back those $\$ 3$ and much more, once I learn about his play in this hand. However, if he bet $\$ 90$, we'd almost certainly have to fold because the price is just too high to pay for the information.

Here's another example. It folds to me on the button, and I raise to $\$ 7$ holding $\mathrm{T} 9 \vee$. The big blind is brand new to the game, and I've never seen him before. He calls. The flop is $T \nless 2 \downarrow$. He checks. I bet $\$ 10$ into the $\$ 15$ pot, and he calls. The turn is the K?. He checks. I bet $\$ 30$ into the $\$ 45$ pot, and he calls. The river is the $3 \downarrow$. He checks. Now, there probably is some value in a small bet. However, it's not an amazing amount of value. Remember, if you bet $\$ 30$ here, the bet is only worth some fraction of that, since sometimes he calls with better hands. So, in this spot against new players, I normally just showdown the hand, so I can find out what he had and gain information. I'm sacrificing some money by not betting, but it's a small amount I'm willing to pay to get information about this new player.

Now, if I held KT and had two pair, I would be sacrificing way too much value by checking. I should certainly make a very sizable bet instead, even though he may fold and I'll miss out on information. The amount of value missed is just too much to pay for the information.

## Dealing with Unknowns

Many times you will be at a table with a player or players about whom you know nothing. Any attempt to make accurate assumptions about their strategy will be difficult since you know little to nothing about them. There are several ways to try to gain some possible information on that opponent.

For starters, one technique is simply being familiar with what the typical player is like at that stake and location. Perhaps you play a lot of $\$ 1 / \$ 2$ on a particular poker site. You may already have a good idea about how most players play at that stake and site. I would start with that assumption on each player unless you have information to tell you differently. You can then change your assumptions as you go along. I used to play so much on one site, if I never saw a player before, it was likely he didn't play often, so I started with the assumption he was a poor player. There are some pretty good tells about a player you can look at right away.

Did he buy in for the full amount? Most regular players come to a table with the maximum buy-in. On many poker sites the maximum buy-in is 100 x the big blind. So, if a player comes to the table with $\$ 167.83$ instead of $\$ 200$, it's likely he's not a regular player. Also, seems likely he came to the table with everything they had in their account, which is something a good player almost never does.

When they entered the game, did they post the blind in an early position instead of waiting for the big blind to get to them? Most regular players will not post the blind in an early position. They don't want to put money in and get a random hand since most hands are not profitable to play. If you catch someone posting a blind, it's likely they're not a good player.

Have they entered a hand by limping? Most good players will not enter a hand by merely calling preflop. If you find someone doing that, it's likely he's not a very good player.

What is their screen name? If you find a person with a screen name using some advanced poker jargon, there's a good chance they have studied the game a bit. Someone sporting the name

## 116

"3betbob" is likely to be familiar with poker strategy ${ }^{18}$, and you can assume they have some clue about what's going on.

How many tables are they playing? It's a good idea to look the player up on the site. Most sites will have a "Find Player" option that will show you all the tables at which a player is sitting. If the player is playing at nine tables, it's likely they have a good idea about the game. If the player is playing in one tournament and in one cash game, you may have a good target.

There are plenty of clues for live play as well, but I'm not a live play specialist and will simply recommend you review other material like Caro's Book of Tells by Mike Caro.

## Understanding the Impact of Aggression

As we've seen throughout this book, aggression is a huge part of winning poker. We use our stack as a weapon to exploit the weaknesses in our opponent's strategy. We drive the action and our opponents always have to respond to us. However, there are a couple of added benefits of aggression, especially when you're playing against level 2 thinkers.

The first benefit is, even when you're caught bluffing, you've often just bought a customer for life. Imagine you've identified a bell-shaped range from a nit. You decide to shove the river as a bluff. He acts a bit out of character, uses his entire time bank and makes a big call with top pair-good kicker. Sure, you just lost a big pot. However, you also earned a customer for life. The next time you have a big hand against him, don't even think about betting two-thirds pot on the river. Shove it in!

[^16]Also, aggression is much cheaper than most realize. If you're not on the river, most of the time your bets are semi-bluffs instead of straight bluffs. If you're betting with bottom pair, then you have five outs to beat pairs bigger than yours. On the flop, this means you have $20 \%$ equity, if you get to see both the turn and the river. So, if you make a $\$ 30$ bet and have equity in the hand, the bet is not costing you $\$ 30$. You get the blue-light special discount on your aggression.

Another important point to consider when you're playing against level 2 thinkers is the idea of pot odds. Many otherwise good players simply bet ineptly on the river and this heavily damages their ability to bluff. Remember, when you bet half pot on the river, your opponent needs to be good better than $25 \%$ of the time to call. This means you need to have at least three times more value hands than you have bluffs for a villain to have a negative expectation value with his call. So, when players do not value bet well on the river, they severely limit the number of bluffs they can make.

When you're playing against good players and you want to bluff, you better make sure you are value-betting more than just the nuts or your bluffs will be very unsuccessful. This is especially true when there were lots of draws available on the board; your opponent knows you can have lots of missed draws, with which you may be inclined to bluff. This is the polarized concept we saw in Table 2, except now your opponent is considering your play in that light. Remember, this is only applicable when you're playing against level 2 thinkers who understand the game well and are willing to put the money in the middle when they believe your strategy is weak.

Against level 1 thinkers, aggression loses some of its value. They are likely not going to change their calling range much if they've seen you bluff; they're certainly not thinking about their

118
reward to risk ratio and the balance of your range. Against level 1 thinkers, you need to rely more on the value of your hand against their range and play accordingly.

Quiz
(Answers on pg. 171)

1. What are two large, common mistakes players make when playing against level 1 thinkers?
2. What is the basis for a level 2 thinker's perception of his hand range?
3. Why is it not good enough to simply know how to trick good hand-readers?
4. Until a player proves to you he can think on level 2, on what level should you assume he's thinking?
5. What are three factors that increase your implied odds?
6. For what reason might you make a call that you know is a negative expectation value call?
7. What are three ways to make some assumptions about a new player to the table?
8. What are three benefits of being an aggressive player, especially against level 2 thinkers?
9. Against what type of players does aggression have less value?

## A Field Trip

Let's take a field trip to an imaginary game at an online table. There are five opponents at this table. See Figure 15 for the seating arrangements at the table. As the game progresses, you'll gain more and more information about the players, so you can develop more accurate assumptions as the game goes on. Not every hand in this imaginary game will be covered, so I'll update you when you miss a hand or important information. You may wish to take notes on a separate sheet of paper as you learn about the players.

The answers are provided directly beneath the quiz question. Before you look at my thoughts, try to think of every angle you can and develop your own thoughts. You may even come up with some I didn't mention.


Figure 15. The field trip table.

This is a $\$ 1 / \$ 2$ online. The maximum buy-in is $\$ 200$. You decided to bring $\$ 200$ to the table. You're QTipDTB at the table.

Question: What can you learn as you sit down at this table?
My thoughts: The players pokerfreecashru and Boone 2 do not have the maximum buy-in. Many times this is a sign they are newer players to the game. Keep your eyes out for them to see if they're a target at the table. The player name LAGTARD likely is a play on the player category LAG, so it's quite possible he's familiar with poker strategy. The player EVConsultant may have made his name from the acronym for expectation value. Again, it's very possible he's familiar with poker strategy.

Hand \#1: You sit in the UTG seat and decide to wait for the big blind instead of posting it. DBagSurplus folds. Boone2 limps for $\$ 2$, and play folds to pokerfreecashru in the big blind. He raises to $\$ 6$. Boone 2 calls. The pot is $\$ 12$, and the flop comes down $5 \leqslant 6 \leqslant$. Pokerfreecashru bets $\$ 12$, and Boone2 quickly calls. The turn is the 8 . Pokerfreecashru bets $\$ 36$ into the $\$ 36$ pot, and Boone2 quickly calls. The river is the J . Pokerfreecashru bets $\$ 10$ into the $\$ 108$ pot, and Boone2 quickly calls. Pokerfreecashru shows $A \backsim A$ and wins the pot against Boone2's J $\downarrow$ K

Question: What can you learn about both players from this hand?
My thoughts: Look at pokerfreecashru's play. He made a very small raise preflop out of position with his AA. He may have a strategy to raise small with big hands preflop with the idea he doesn't want to lose customers. He bet pot on both the flop and turn, when the board contained a lot of draws. The river brought a possible backdoor flush and some straight possibilities. He then bet very small after what he probably viewed as a bit of a
scary card. So, his weak bets on the river may mean he's not very proud of his hand, while his large bets on the flop and turn may seem to indicate he doesn't want draws to see more cards cheaply.

Now, let's look at Boone2's play. He limped in middle position with KJs and then called a small raise. There's not much to glean here, as he didn't play in a completely unreasonable manner; however, he does seem to be somewhat passive preflop with a decent starting hand. Also, his limping might indicate he doesn't appreciate the power of aggression. On the flop we learn he may play strong draws passively in position. On both the flop and turn, he very quickly called a pot size bet with his flush draw. He's probably not even thinking about pot odds and simply refuses to fold a strong draw to much of any action. His river call seems quite reasonable given the price he had to call. Boone2 lost the hand and now he adds another $\$ 100$ to his stack.

Hand \#2. Now, you're in the game and get 85 s in the big blind. DBagSurplus is UTG and folds. Boone2 again limps and play folds to pokerfreecashru in the small blind. He raises to $\$ 8$. The action is on you.


Question: What should you do?

My thoughts: It's best to fold here. The holding does have a little bit of value to make a straight or flush, but your steal equity here is probably quite low. If Boone2 calls, we'll be sandwiched between the preflop raiser and another player, which always makes for a tough spot. We still have little information on each player, so it's best to get out of way, try to learn a little more about the opponents and wait for a better holding and situation.

So, you fold and Boone 2 calls. The pot is $\$ 18$, and the flop is A $\downarrow$ 7 3s. Pokerfreecashru bets $\$ 18$, and Boone 2 calls. The turn is the J . Again, pokerfreecashru bets the pot and Boone2 quickly calls. The river is the $2 \boldsymbol{*}$. Both players check. Pokerfreecashru turns over $\mathrm{K} \leqslant \stackrel{\downarrow}{ }$, and Boone 2 turns over Q $\uparrow \mathbf{~} \boldsymbol{\otimes}$. Boone2 wins the pot.

Question: What can you learn about both payers from this hand?
Let's start with pokerfreecashru. He made a healthy raise preflop when he was going to be out of position. While it's unclear if his raise is completely unreasonable (it's possible he's a good player and felt his steal equity was high against Boone2), we do have to realize he's a pretty aggressive player preflop. He's likely either shaping up to be a LAG or a maniac. His postflop betting is identical to when he had AA. He bet pot on both the flop and turn. Now, when he hit bottom pair on the river, he decided to check. It's likely he decided to check because he now felt he had some showdown value and didn't want to turn that into a bluff. However, given Boone2's call on the flop and turn, his pair is almost certainly worthless. It's unlikely pokerfreecashru turns out to be a good player. We're probably fortunate to have him on our right, and we better buckle up to play some big pots with marginal hands, if he continues this style of play.

Looking at Boone2's play, we're starting to get a good feel for the type of player he is. He's limp/called with Q7o preflop. This is a very poor holding in his position, so we're learning he's probably quite loose preflop. Again, he was passive postflop as well. He called two pot size bets postflop, first with middle pair and then third pair on the turn. While his calls are probably justified if pokerfreecashru is a maniac, a player limp/calling with Q7o in middle position probably doesn't know that. Most likely, he just refuses to fold pairs. We're about ready to classify Boone2 as a calling station.

We've not seen anything from the other players yet, and that at least tells us they are exercising some hand selection preflop.

Hand \#3: You're the small blind now and hold A9o. Boone2 limps UTG, and play folds to LAGTARD in the cutoff. He raises to $\$ 9$. It's pokerfreecashru's turn and he reraises to $\$ 20$. It's your move.


Question: What should you do?
My thoughts: Again, it's best to fold here. A9o is just too weak a hand to get in the middle of the preflop storm. There may come a time when we're forced to get it in preflop with pokerfreecashru with a hand like this, but now is not the time.

We don't know much about LAGTARD and we haven't seen pokerfreecashru reraise yet.

You fold, the big blind folds, and so does Boone2. LAGTARD instantly folds as well.

Question: What can you learn about the players in this hand?
My thoughts: Again, we'll start with pokerfreecashru. We can't be certain what he had here, but the more he raises preflop, the more we can safely assume he's raising with a lot of weak holdings. We've seen a weaker holding out of him already, and he's raised three out of three hands. A few more raises or reraises from him preflop, and it will probably be time to classify him as a maniac.

While we didn't see Boone2's hand, we did at least learn he can fold before the flop. Just took a lot of action to get him to do so.

We didn't see LAGTARD's hand, but his quick fold was an indication he probably didn't have much of a hand at all, given the fact pokerfreecashru's reraise was practically a minraise. LAGTARD has picked up possibly on the fact Boone2 is a poor player. LAGTARD has decided, therefore, to raise Boone2 with lots of hands in order to build pots in position against a likely weak player with a weak range. LAGTARD's actions are consistent with a good player's thought process. It's likely he's not a target at the table.

Hand \#4: Now you're on the button and get dealt A8o. Everyone folds to pokerfreecashru who's in the cutoff and he raises to $\$ 9$.


Question: What should you do?
My thoughts: I would call here. A8o is just too strong to fold against a player who's shaping up to be a maniac. His larger raise size may indicate he has a weaker hand, since he raised very small with AA in hand one. It would be nice to have our hand be suited or even have a higher card to go with the A, but we don't. Reraising him is an option; however, there are a couple reasons I prefer a call. The first reason is that Boone 2 is in the big blind. I'm happy to have him get in the hand. If I hit a pair, I get value from many weaker holdings he'll call with postflop. The other reason I prefer a call is I get a lot of value postflop if I hit a pair (and maybe even if I don't) by allowing pokerfreecashru to fire large bets in the pot with nothing. We've yet to see if he'll get all-in preflop with weak hands.

You decide to call. DBagSurplus folds and - as we hoped Boone2 calls in the big blind. The flop is $\mathrm{Q} 8 \mathbf{~} 6$. You're holding A 8 . Boone 2 checks, and pokerfreecashru bets $\$ 27$ into the $\$ 27$ pot. You still have about $\$ 200$ and he has you covered. Boone2 has about $\$ 180$.

Question: What should you do?

My thoughts: While reraising certainly is an option, we've not yet discovered if pokerfreecashru will fold to aggression or if he'll fight back with a weak range. We do know, however, he likes to make big bets with all sorts of holdings. Our hand is much too strong against his range to fold. We also need to consider that Boone 2 is still in the hand. If we call, he's likely to call with any pair and also quite a few straight draws like 75, 97 or maybe even a hand like T9. Allowing him to put money in with those hands is $+E V$. Pokerfreecashru's weakness seems to be mindless aggression, while Boone2's weakness seems to be calling with insufficient odds. Calling allows them both to make their mistake.

You decide to call, and Boone 2 folds. The turn is the $\mathrm{J} \downarrow$, and pokerfreecashru bets $\$ 80$ into the $\$ 81$ pot.

Question: What should you do?
My thoughts: The J brings another overcard to your split pair of 8s. Feels like he's raising with such a wide range preflop, and he's bet pot on the flop and turn with likely hopeless steal equity. Our hand is just too strong to fold against his range. We do need to understand this pot is getting substantial, compared to the money left. If you call this bet, the pot will be $\$ 241$, and you'll only have $\$ 84$ left. If you call now, folding on the river will almost certainly be out of the question. The aggressive betting is making life difficult for you with a marginal hand. However, you've seen enough in these few hands, a call seems in order.

You call, and the turn brings the K . Pokerfreecashru goes allin.

Question: What are you thinking about pokerfreecashru's range right now?

My thoughts: The $\mathrm{K} \star$ is yet another overcard to our pair of 8 s and also brings a possible diamond flush. However, while the K * may look like a scare card when a player shoves on the river, it's actually just the opposite. The last time a possible flush came on the river, this player bet small on the river with his AA. His actions with hands like one pair on the river mean he likely has a polarized range when he shoves here. Possibly he has a flush or maybe he's still betting strong with a hand like a set. However, given the fact his range is still practically any two cards, the number of combinations that are actually strong compared to weak hands - suggests the proportions of his polarized range swing hugely towards weak hands. Getting 4:1 on the call, you only need to be good $20 \%$ of the time. This is a super easy call. Even if we still had a pot bet left or more, I'd happily make this call, given what we've seen so far.

You call and your opponent flips over $7 \vee 9$. You win a big pot.
Question: How would you feel if pokerfreecashru turned over $\mathrm{A} \bullet \stackrel{\mathrm{Q}}{\mathrm{s}}$ ?

My thoughts: It's likely you just ran into the top of your opponent's range. You had enough information to make a decision that likely had a plus expectation value. Shake it off. Losing a stack is a normal part of the game. Say "Good hand" to your opponent, rebuy and keep your eyes open for more information. By the way, don't forget to try to learn from the hand. There's not a lot to gain from your opponent's actions that you didn't already assume. However, I'd still note he bluffs large with his draws and turned 9-high into a bluff out of position on the river, after he missed his open-ended straight draw. You may need to consider he's now seen you get very sticky postflop. However, I'd be more inclined to believe this won't hinder him from bluffing you in the future. Against a good LAG, you'd have to consider that in the future. Against a
maniac, don't bother. This isn't a concern, anyway, because pokerfreecashru has now left the table. Be sure to check to see if he's playing at any other table. He's someone you want at your tables. But, for now, no one has taken his spot, so you're playing 5-handed against the other players.

Before we move on with this imaginary table, understand you're making a decision every hand. The decision is a game selection decision. Is there a reason to be at this table? Are there players at the table you can beat? When pokerfreecashru left the table, the table dynamic changed. We have to reevaluate our situation. In this case, the answer is clear. Boone2 is still calling away with weak hands, so we have an obvious target remaining at the table. Let's play some more poker.

Hand \#5: Now you're in the cutoff seat with J6s. LAGTARD is UTG and raises to $\$ 7$. You're next.


Question: What should you do?
My thoughts: Probably best to fold here. If you call, the likely scenario postflop is you'll be in position in a three-way pot with LAGTARD and Boone2. You'll likely get a pretty honest response from LAGTARD if he makes a c-bet, because the pot would be multi-way and he would be out of position. Most
thinking players would not bet a flop in that situation unless they hit a hand. So, playing in position, there's definitely some merit in calling and being in a pot with Boone2. While your hand has little showdown equity against LAGTARD's likely range, it's going to play quite well against Boone2.

However, there are a couple drawbacks to calling. You can't be sure what DBagSurplus is going to do on the button. Many players tend to call on the button with looser ranges, especially when a pot is going to be multi-way. So, you may not be in position at all and may have to deal with other players. The big blind may decide to get involved as well, if there are three players already in the hand. So, your steal equity postflop may be extremely low and your hand isn't doing well against all those players. If you could be relatively certain to take a flop in position with LAGTARD and Boone2, then a call would certainly be a reasonable play. Here though, a fold is probably best.

In this hand, everyone folded except Boone2, who called in the small blind. The flop came down $\mathrm{K} \uparrow \mathrm{T} 7 \boldsymbol{*}$. Both players check. The turn is the 3 . Boone 2 checks, and now LAGTARD bets $\$ 9$ into the $\$ 16$ pot. Boone 2 quickly calls. The river is the J\& Boone 2 checks, and LAGTARD bets $\$ 30$ into the $\$ 34$ pot. Suddenly, Boone2 comes to life and raises to $\$ 80$. LAGTARD pauses for a moment and then calls with $\mathrm{J} \leqslant \mathrm{T} \leqslant$. However, Boone2 turns over A $\vee \downarrow$ to win a nice pot. LAGTARD's stack immediately fills up to $\$ 200$.

Question: What did you learn about these two players?
My thoughts: Take a look at LAGTARD's play. In a 5-handed game, his raise preflop holding JTs with a calling station in the blinds is a reasonable play. His flop play is certainly worth noting. He checks here with middle pair with a good kicker. As

## 132

we've seen earlier in this book, there's no reason to check this flop against a player like Boone2. There's plenty of value in a bet here. LAGTARD seems to be going with the mentality of controlling the pot with what he considers to be a marginal hand. While we've not yet seen him c-bet, it's likely he'll have a polarized range when he does. On the turn, Boone 2 checked again and the turn was an undercard, giving him a flush draw to go along with his middle pair. He decides to throw out a moderately-sized bet. This certainly seems reasonable and there's not much to note here. On the river, he hits two pair and goes for a pot-sized value bet after Boone2 checks again. Boone2's check/raise was almost a minraise, so LAGTARD was getting a good price to call. It's a tough spot for LAGTARD, if he'd not seen much from Boone 2 yet. I certainly can't fault him for calling at that point, but a call is probably optimistic. Also, LAGTARD immediately bought in again for the full amount. Many poker sites offer an auto top off option, so any time your stack goes beneath the maximum buy-in, it's topped off to the maximum. This is a really good indication LAGTARD is a regular player.

Boone2 continues to confirm our idea of classifying him as a calling station. His call preflop is certainly reasonable, but we already know he could call there with a much worse holding than AQs. His check/call on the turn continues to display his sticky nature. His small check/raise on the river is certainly worth noting. So, he can get a little tricky when he has a big hand; when he went for value with a big hand, he made a very small raise.

Hand \#6: You're UTG and get dealt J5o.


Question: What should you do?
My thoughts: You're now deep with Boone2 and would love every chance to get in a hand with him. However, he's on the button, and your hand is terrible. Your steal equity postflop will be similarly terrible and so is your showdown equity. Folding is the clear play.

DBagSurplus folds, too, and Boone2 limps. Now, EVConsultant wakes up in the small blind with a $\$ 10$ raise. LAGTARD folds and Boone 2 calls once again. The flop is $\mathrm{Q} \downarrow 9 \vee 6$. EVConsultant fires a c-bet of $\$ 22$ into the $\$ 22$ pot. Boone2 quickly calls. The turn is the Q4. EVConsultant now bets $\$ 40$ into the $\$ 66$ pot, and Boone 2 calls once again. The river is the Ta, and EVConsultant bets $\$ 100$ into the $\$ 146$ pot. Boone2 quickly calls again and shows J T T . EVConsultant shows JゃJ $\downarrow$ and wins a nice pot.

Question: What can you learn about both players from this hand?
My thoughts: We again see Boone2 play passively in position with the strongest of draws. Again, the size of the bet doesn't seem to faze him. On the river he makes a big call after hitting a pair instead of a straight or flush. We can pretty much wrap this case up. Boone 2 is a calling station, through and through. He
had built a big stack really quickly as he caught some hands and picked up a bluff. However, he's back down to about $\$ 200$ after this hand.

The first time we got to see EVConsultant in action, he played the hand fairly well. His raise preflop was certainly standard with a hand as strong as JJ. He also raised a bit over pot, a good idea with a player like Boone2. He'll likely call with many marginal hands, whether you make it $\$ 8$ or $\$ 10$ preflop. That extra $\$ 2$ preflop can do wonders to build a bigger pot postflop. His flop bet out of position with less than top pair shows us he can value bet well. He continues that good betting on both the turn and river, even after the board paired the turn where a lot of players would be scared. In reality, the Q on the turn makes it so there are even fewer combinations of Q hands in Boone2's range. EVConsultant recognizes a lot of value remains to be had in betting his hand and he wins a nice pot.

Hand \#7: You're in the big blind now and look down at KaKレ. DBagSurplus is UTG and we watch him put in his first chips as he raises to $\$ 7$. Boone2 is next and calls. The other two players fold and the action is on you.


Question: What should you do?

My thoughts: Slowplaying your big pair in this spot is a bad idea. You have a premium hand with some really good things going on. Re-raising is clearly the play. DBagSurplus has not played a hand yet and is now raising from UTG. He could very likely have a strong range with big hands that are willing to get all-in against you. Certainly, AA is among them, but against an overall range of JJ+, AK (assuming that's the range he'd be willing to go all-in with), your KK is doing really well in this spot. Also, Boone2 has already put in $\$ 7$, so he may be inclined to toss in more money to see a flop. You could certainly mess with some different bet sizes here, but a pot-sized raise to $\$ 27$ should work just fine.

You raise to $\$ 25$. DBagSurplus thinks for a while and then folds. Boone2 quickly calls. The flop is $7 \uparrow \mathrm{~J}$. The pot is $\$ 58$ and Boone2has about $\$ 175$ left.

Question: What should you do?
My thoughts: It would be a crime not to build this pot right now. Boone2 likes to call, and we have to allow that process to start happening. He has a ton of reasons to call on this flop. There are all sorts of pairs he can have, straight draws, overcards and a flush draw. Shoot, he can even have all sorts of one-card gutshots with any holding with a T or an 8 in it. Betting is absolutely mandatory. But the question is, how much? Whatever the amount is, make it large. Going all-in right now might be a tad too strong of a play, even against a calling station like Boone 2 . We want to make sure he stays in the hand with 7 s and other weak holdings. The turn can bring a lot of scary cards for many of his holdings, and we'd like to really tie him to the pot on the turn. If you build the pot with a $\$ 58$ bet, you'd have a $\$ 174$ pot with $\$ 117$ left in Boone2's stack. That's really pretty good, but it might be better. We want to get his stack to less than $\$ 100$, because any person in marketing will tell you $\$ 95$ is
way less than $\$ 100$ ! Also, if he'll call a pot-sized bet on the flop and then fold to a scary river card, it's best to try to get him to bet as much as possible right now. I would tend to overbet the pot just slightly. I think an $\$ 80$ bet works pretty well here. A player like him will likely see no difference between $\$ 58$ and $\$ 80$. This will give us a $\$ 218$ pot on the flop and leave him with only $\$ 95$ left in his stack.

So, you bet $\$ 80$, and he quickly calls. The turn is the $\mathrm{A} \vee$.
Question: What should you do?
My thoughts: You made a great bet on the flop and created an excellent situation on the turn in order to tie Boone2 to the pot even more than he might naturally be already. While it's always sad to see an A on the board when you're holding KK, going allin here is mandatory. There's another flush draw now to go along with all the other draws Boone2 can have. Sure, sometimes he has you beat here, but you cannot allow all his draws to see all their equity on the turn and then just keep his money if he misses his draw. Get the rest of the money in here, while he's still chasing with a huge part of his range.

Boone 2 presses the call button rather quickly and flips over $\mathrm{K} \$ 8$.

Question: What should you be thinking here?
My thoughts: "One time, baby! Hold one time!" Do your best to stay away from this type of thinking. It just leads to disappointment. The hand is over on the turn. You had a solid thought process in the hand. You can't control the river card. This is part of the game. Boone2 has a fair amount of equity in this spot, and you will watch the pot go his way about $25 \%$ of the time. It's just going to happen from time to time, and that's a healthy part of the game.

As it happens, the river is the $3 \boldsymbol{\downarrow}$, and you win another big pot. Boone2 got stacked and is sitting out; however, he's not left the table. You're uncertain if he's going to leave or if he'll be coming back with more money. Meanwhile, another player named LargeMarge has taken the seat to your right where pokerfreecashru once sat. You've never seen this player before, and she's come into the game with $\$ 184$.

Question: What is the most important question for you to answer right now?

My thoughts: Remember, before you are ever dealt a hand, you're making a game selection choice. Another poor player is no longer being dealt cards. This changes the game again. Is this a table you want to stay at or should you move on to find different targets? Probably, it's good to stay and keep playing. We could take some time to see if Boone2 reloads and is ready to play again soon. Also, it would be nice to find out about LargeMarge. If this is a poor player, there's no better place to have her than on your immediate right. Her starting stack size indicates a good possibility she's not a regular player.
Remaining at this table for a while is probably a savvy decision.
Before we move to the next hand, think about the fact we've only observed seven hands. We've been able to gather a ton of useful information in only one orbit. This is mostly due to having the two poor players at the table. They created an information-saturated environment by making many hands go to showdown. In real time, all this action would take place in less than 10 minutes. If you were not paying attention for whatever reason in that short period of time, you would have likely missed out on two terrific spots to get your stack in as a large favorite.

Hand \#8: LargeMarge has to wait yet to enter the game. For now you're playing 4-handed. You're in the small blind and get
dealt Q Ta. EVConsultant folds, and LAGTARD raises to $\$ 7$ from the button. He has $\$ 200$ and you have him covered.


Question: What should you do?
My thoughts: Folding is not unreasonable here, but I would prefer a call. LAGTARD is probably raising a very wide range on the button, so our hand has some decent showdown equity versus his range. Of course, this only matters if we can get to showdown, which can often be difficult against an aggressive player. We do have some information on LAGTARD now, so we may be able to use some of that in this hand. Reraising is also a reasonable play. With LAGTARD's range likely containing many weak hands, he would probably be folding quite often to a reraise. He did show the ability to fold to a very small reraise in hand number three. So, a reraise could be a fine option as well. Since I would be out of position if he called my reraise and I have no idea how he plays in larger pots postflop, I'd still favor calling. Interestingly, all three options have some merit.

You call and the big blind folds. The flop comes down 9 $\mathbf{~} 5 \vee 2$. You check and LAGTARD bets $\$ 12$ into the $\$ 16$ pot.

Question: What should you do?

My thoughts: Folding here certainly wouldn't be unreasonable. But, given what we've seen from LAGTARD in hand \#5, a check/raise would be my preference. We learned his flop cbetting range is likely polarized. Since he can have such a large range preflop by raising on the button, his polarized range is likely heavily weighted to the weak side of his range. If he does call, we possibly do have some outs with our two overcards and a backdoor flush draw.

You raise to $\$ 35$. He pauses for a few moments and then reraises to $\$ 80$.

Question: What should you do?
My thoughts: LAGTARD is telling you he has a strong range, so it's best to get out of the way and simply fold. You made a play based on the information you had at that point, and it just didn't work. This doesn't mean it wasn't a good play. It's very likely we simply ran into the top of his range in this hand. Now, it's also possible LAGTARD is able to look at this dry flop and realize there are very few combinations for you to have a strong hand. He may simply be reraising you here as a bluff. However, it's best to assume he has a strong range rather than decide he has the ability to make a sophisticated move like that, based on combinations. Assume he's not capable of those thoughts until he proves to you he is. Keep your eyes open for more information on just how sophisticated his thoughts can be.

You fold. Now Boone2 is the big blind and has reentered the game with $\$ 150$. LargeMarge is in the cutoff seat and has posted the blind to begin playing.

Question: What should you be thinking about the game?
My thoughts: Having Boone2 back in the game is fantastic. Also, LargeMarge is showing us some good signs by posting her
blind. This along with her stack size are good signs she may not be a regular player.

Hand \#9: You get $\mathrm{J} \diamond 9 \diamond$ on the button. There is an extra big blind in the pot from LargeMarge posting in the cutoff. EVConsultant and LAGTARD both fold, and LargeMarge checks.


Question: What should you do?
My thoughts: Since LargeMarge posted in the cutoff seat, she can have any two cards here. Our hand is a pretty good starting hand. We certainly don't want to fold it, especially with Boone2 back in the game. However, a raise is certainly better than calling in this spot. We have the ability to just take the blinds and the posted blind when we raise. We also will find ourselves in the bread and butter spot if any players call. Our hand will play quite well if Boone2 calls. Also, DBagSurplus has been very tight in this game, so we don't have to be very concerned about him. I would definitely raise here, give yourself a chance to just win the current pot and be fine with the initiative in position against weak players.

You raise to $\$ 8$, both the blinds fold and LargeMarge calls. The flop is J $\mathbf{7} \mathbf{~} 5 \mathrm{\varphi}$. LargeMarge checks.

Question: What should you do?

My thoughts: While we have little information to form a range for our opponent, it's very likely we have the best hand with top pair. There are many reasons a player would want to call on this flop. They can have many different pairs, as well as a flush draw and multiple straight draws. You could consider betting more than pot here, but not knowing how likely LargeMarge is to get all-in with weak hands, I'd probably aim for a more modest sized pot in this situation.

You bet $\$ 15$ into the $\$ 19$ pot. LargeMarge quickly calls. The turn is the 6\%. LargeMarge checks.

Question: What should you do?
My thoughts: The board hasn't changed that much on the turn. It did give 89 a straight and two pair to a hand like 76, but those hands are certainly a small part of a player's range in this situation. The turn did, however, give many more straight draws to different holdings. Any 8 or 4 now has an open-ended straight draw. A player can still have worse pairs and flush draws in his range to go along with the straight draws. This is certainly a reason to keep betting with your likely best hand.

You bet $\$ 35$ into the $\$ 49$ pot. LargeMarge quickly calls. The river is the K $\uparrow$. LargeMarge checks.

Question: What should you do?
My thoughts: Obviously, the flush draw has arrived and an overcard has come as well. This is an unwelcome card, not so much for our hand but because it will be a scary card for our opponent to call with worse hands than ours. I'm not very concerned about our opponent having a flush here because a parlay of events would have had to happen. She would have to play passively with a strong draw out of position on the flop, not consider pot odds on the turn, as well as checking the made flush
on the river. This makes a flush holding unlikely. The K is not much of a concern, either. The only Ks that really make it to the river are two pair holdings like KJ or K7. Since the K is the Ka, we don't have to worry about a hand with a K in it that had a flush draw like $K 4$. If the river were the $K$ instead of the Ka , then a pair of Kings would be a greater concern. So, there's a very good chance we still have the best hand. But, that doesn't mean we should bet.

In Poker Math That Matters, we learned in order to make a river value bet, our opponent needs to call with $50 \%$ more worse hands than better hands. The river card hurt our chances for that to happen, as it's probably a rather scary card in our opponent's eyes. Having said that, I'd be almost certain there's value in a very small bet like $1 / 5$ of the pot. However, there's yet another thing to consider. Getting to see our opponent's cards here will be very valuable. She's on our right, so we're going to be able to get in many hands with her if we want to. If we see her cards now, we'll be able to see how she played every street in this hand. While betting the river certainly has some value here, it's not a large amount of value. I would pass up on it in order to capture the value of getting information on our new opponent. This is an example of a good spot to pay for information.

You check, and lose to LargeMarge's $\mathrm{K} \downarrow \mathrm{J}$.
Question: What did you learn about LargeMarge?
My thoughts: Obviously, LargeMarge seems to be more passive preflop. Her hand in the cutoff seat is very strong and she just checked it. She probably doesn't understand the power of position and initiative. She also seems to be rather passive and she check/called with top pair with a strong kicker. Her river play was probably going to be a check/call as well, since the flush came in and would beat her two pair. We also can note her
timing with her calls. She called quickly on both the flop and turn with what she viewed as a marginal hand. Unfortunately, we didn't learn a ton about our opponent's play in that hand. Also, we happened to run into what - probably - is the top of her range in that spot. That's just how it goes from time to time.

Hand \#10: Now you're in the cutoff seat holding A $\downarrow$.
LAGTARD and LargeMarge both fold.


Question: What should you do?
My thoughts: DBagSurplus is on the button and has been the tightest player at the table so far. In this case, we can treat the cutoff seat virtually like the button. If we raise, there's a good chance we'll be in position for the hand, if someone calls. Also, Boone 2 is in the blinds and is the most likely caller. A9 is a strong hand against his calling range. Since he's so likely to call, I'd probably raise larger here to get a bigger pot started when he calls.

You raise to $\$ 8$. DBagSurplus folds, Boone2 calls and EVConsultant folds. The flop is $5 \leqslant 9 \star$. Boone 2 checks.

Question: What should you do?

My thoughts: This is a terrific flop to give Boone2 many reasons to call. However, it's also what I would call a very unstable flop texture. The texture of the board is going to change a lot on future streets. An overcard, a diamond, a 7 or an 8 , is going to be very scary for everyone. That's well over half the deck that changes everything. My hand rates to be very strong against Boone2's calling range, even after I bet very large. A player like Boone2 has no understanding of pot odds and will call any pair or draw for 2 x the pot as quickly as pot. Since future streets are so likely to scare all his marginal hands and he's unlikely to fold any draw, I'd overbet the pot here to get in as much money as I can. A goal of mine would be to end the hand on the turn comfortably.

Boone2 started the hand with $\$ 148$. After his preflop call, he has $\$ 140$ left. The pot is currently $\$ 18$. If I bet $\$ 50$, we'll have a $\$ 118$ on the turn with him having $\$ 90$ left. I like that set up on the turn. It's easy for him to feel committed to the hand on the turn with weak holdings. With his draws, I want him getting all his money in, before he gets a chance to check and fold missed draws on the river.

You bet $\$ 50$. Boone2 check/raises you all-in. The pot is now $\$ 206$, and it's $\$ 90$ for you to call.

Question: What should you do?
My thoughts: You're getting just over 2 to 1 on your call, so you need to have about $30 \%$ equity to call. Do we think we have that much equity against Boone 2 's range? Well, $30 \%$ equity is not a lot to need; however, we must be realistic about this situation. When a calling station starts tossing chips in with raises, alarms must start going off in your head. The only time Boone2 has ever raised was when he had the absolute nuts on the river. Even though he raised small with a huge hand before - and is raising
large now - the situations are completely different. His small raise before was on the river with no draws to come in. Now, he can very likely be raising large with the nuts on this flop because he is afraid of the draws. In both hands \#1 and \#6, we saw Boone 2 play very passively with extremely strong draws. All this information is telling us Boone2 likely has a very strong made hand. Those hands could consist of 55, 66, 99, 78, 56, 59 and 79. If you enter this situation in Pokerstove, you'll find you would have about $17 \%$ equity. This is only half of what we need.

While you have that hand entered in Pokerstove, add some weaker hands. Explore how many different weaker hands your opponent would need to have in order for you to more than $30 \%$ equity. This will help you get a feel for similar situations against different opponents. For example, if you had J9 and T9 to his hand range, your equity goes up to $35 \%$, and you'd be able to call against that range. Unfortunately, we likely ran into a very strong hand here after making such a substantial bet on the flop, but again, that's how it goes sometimes.

You fold. Boone2 shows the table his $7 \boldsymbol{\square}$ as he wins the pot.
Question: How would you feel if he turned over TaJ?
My thoughts: That's certainly a surprise from what we've seen so far, but you'll sometimes find poor players who make erratic plays. Obviously, we haven't received any information to this point to feel he's capable of that type of aggression. If we had seen this before, we'd certainly have called on the flop. So, don't get frustrated. Be grateful he showed you that information and be ready to change your assumptions about his possible range in the future. Also, don't go overboard with any adjustments. He's still shown incredibly passive behavior before that hand. We can't be certain pressing all-in wasn't even an accident by
clicking the wrong button on the computer. It's also possible he's angry from losing all his money to you before and now is going to be more aggressive. However, at this point, I'd still treat him as a calling station until I see more aggressive behavior.

Hand \#11: LargeMarge limps UTG. You're next to act with T9s.


Question: What should you do?
My thoughts: This hand is always a pretty one to see but is frequently overvalued. T9s often relies rather heavily on steal equity in order to be profitable. However, this situation is an exception. There are a couple players at the table that may pay you handsomely with weak hands. Also, most everyone at the table has a good-sized stack and that helps your implied odds with a hand like this. So, playing T9s here is certainly reasonable. I wouldn't fault someone for folding, but I think we can play this hand for a profit against poor players.

Now, we have to decide whether to raise or just call. While raising certainly has some merit, I would opt to call in this situation. Raising will buy the initiative in the hand and offers us a chance to get heads up in position against LargeMarge, which is always a good thing. However, there are many players left to act and the player on the button, Boone2, is quite loose.

It's likely, if we raise, we'll be in the middle of a few players in a raised pot with a very marginal hand. Raising is probably a little ambitious here. Both of the aggressive players are in the blinds, so they're unlikely to raise without a stronger hand. If either LAGTARD or EVConsultant were on the button, I would change my decision to a raise. But, with Boone 2 on the button and a tight player in the cutoff seat, we're unlikely to get raised by either of those players. So, let's call and see a flop against a few poor players and perhaps we can make some money postflop.

You call, and - to your amazement - everyone folds to the small blind, EVConsultant. He raises to $\$ 11$. The big blind folds. LargeMarge calls, and the action is on you.

Question: What should you do?
My thoughts: I'd call here. We're going to see a flop in position with a hand that has some potential to make a big hand. We are going to be in a multi-way pot, so that should slow down EVConsultant from just betting any flop. We may get a chance to hit a nice hand or draw and/or show some aggression post flop, if our opponents show weakness. I would assume EVConsultant has a fairly strong range here. I would be thinking about 88-AA, AJs+, AQo, KQs.

You call. The pot is $\$ 35$, and the flop comes down $A \geqslant 8 \downarrow$. EVConsultant checks, and so does LargeMarge.

Question: What should you do?
My thoughts: Both opponents are showing signs of a weak range. Even though the board makes a flush draw possible, it's still relatively dry. While EVConsultant's likely preflop range consisted of a lot of big As, it's very unlikely he'd slowplay a big hand in this situation since he's out of position with a couple players in the hand. He would likely be looking to build the pot.

So, he probably has a hand like $99-\mathrm{KK}$ or KQs. LargeMarge simply limped and called preflop, so her range could be very large. I might make a bet about half the pot here to see if I can just bend over and pick up the money against their weak ranges. That was part of the reason I felt the call was good preflop, and I'm going to carry through with that action now. That bet will put EVConsultant in a tough spot with his big pairs, since there's one player left to act and he'll be out of position for the rest of the hand.

You bet $\$ 19$ into the $\$ 35$ pot. EVConsultant calls, and LargeMarge folds. The pot is now $\$ 89$ and there's plenty of money left to bet, since you both started the hand with well over 150 x . The turn is the J . EVConsultant checks.

Question: What should you do?
My thoughts: That's a really welcome card. It's extremely unlikely EVConsultant had two hearts. Big suited broadways were a very small portion of his raising range preflop and then they practically disappeared when he check/called the flop. After his call on the flop, I would think he has a stubborn 99-KK or a possible slowplayed set. The JV is a particularly good card for us since it now completes a flush draw and is an overcard to both 99-TT. I would make a healthy bet here. Even if he continues to be stubborn with a hand like $K \vee K \wedge$, we picked up an open-ended straight draw with the J , so we are semi-bluffing with a fair amount of equity. That makes our bluff even less expensive.

You bet $\$ 70$ and EVConsultant quickly folds. LAGTARD sits out.

Hand \#12: All players fold to Boone2, who open limps. EVConsultant is next on the button and raises to $\$ 7$.

LargeMarge folds in the small blind, and the action is on you in the big blind. You look down to see $\mathrm{Q} \wedge \mathrm{J} \boldsymbol{\mathrm { J }}$.


Question: What should you do?
My thoughts: EVConsultant has showed signs of being a fairly good player. It's likely he's noticed how poor a player Boone2 is, and is probably raising with a very wide range to isolate Boone2. Also, EVConsultant's raise was less than pot size. It seems he's looking to keep the pot smaller. His range leans more towards weaker hands, since he'd likely raise larger with strong hands to build pots against Boone2's tendency to call. Our hand is doing well against both of their ranges. Reraising to just win the pot now would be a fine play. However, I'd prefer to call and see a flop with Boone2. There's a lot of money to be won against him postflop.

You call, and so does Boone2. The pot is $\$ 21$, and the flop comes down A $\mathbf{J} \mathbf{Y} \mathbf{~}$. You check, and so does Boone2.
EVConsultant makes a c-bet of $\$ 10$. He started the hand with $\$ 210$, and now has $\$ 192$ left.

Question: What should you do?
My thoughts: EVConsultant's c-bet there is really weak, given the texture of the flop and there are two players - one a calling
station - in the hand. A big hand likely bets large there to get the pot growing. EVConsultant's range likely has a lot of As in it. If he would isolate Boone2 with any A, which is likely, if you look at A2-A7 and A9-AT, that's 96 combinations of top pair hands. But, we do have outs, if we're behind. Sometimes we'll even have the best hand when EVConsultant has a draw, an 8 or a worse J. It's still possible for Boone2 to call with worse hands and draws as well. Raising is an option, but I'd probably just keep the pot small here and see how the action goes.

You call, and Boone 2 folds. The turn is the $9 \boldsymbol{d}$. You check and EVConsultant bets $\$ 20$ into the $\$ 41$ pot.

Question: What should you do?
My thoughts: We learned something important about EVConsultant back in hand \#6. EVConsultant does not need a strong hand to bet both the flop and turn. He likely recognizes there's still value in betting with top pair, when there are draws and weaker pairs in our range. His bet is quite small on a board like this, so I would think his range still has very few large hands in it. Given that information, I would assume he's still betting with every A, perhaps a hand like KJ and perhaps some semibluff hands with hearts or a strong straight draw. His play so far is giving signs of a bell-shaped range.

We again picked up a really nice turn card, which gives us a gutshot and a flush draw to go along with our middle pair. We could look at this as a reason to call, but it's more appropriate here to see this as a blue light special discount on aggression. Our strong draws make semi-bluffing cheap and, against his likely weaker range, we can very possibly get a lot of those weaker As to crumble under pressure. I would check/raise here. Moving all-in would be a fine option. A pot-size raise would be to $\$ 101$. EVConsultant would need to call $\$ 81$, leaving him with
$\$ 91$ on the river. That's a decent raise size, but I'd prefer to be the last one to put money in this hand. I really don't want him calling; I'd then be left on the river with a decision still for about half a stack. So, I'd raise somewhere between $\$ 140$ or a push. The $\$ 140$ can be a nice option if you sense it will make your opponent feel like you want him to call. A push perhaps makes him think you want him to fold. However, that's probably a small consideration here, and a shove would be just fine.

Another nice thing about a shove is maybe he'll call with a strong draw, and you're actually ahead. I would assume I had around $35 \%$ equity against his calling range. Using the shortcuts from Poker Math That Matters, I can quickly estimate I need him to fold around $60 \%$ of the time. Given all the weak aces in his range and my assumption he'll fold them, this will be a very profitable play. This is a good spot to attack a bell-shaped range. I would expect him to fold more than $90 \%$ of his range here.

Consider that in the previous hand we made EVConsultant fold a hand he seemed to like on the flop, too. Considering these variables is part of the meta game. If you pull this move off, that will be two times in a row you have shown him aggression. You may have less steal equity against him in the future, as he may grow tired of your aggression and start calling you more lightly.

However, I often like to show aggression immediately after I did it against a player for the first time. I find that many good players tend to give me more credit for a strong hand, since they know I would know I just showed aggression. Yes, these leveling games against good players do get confusing. The point is just to be aware of how your actions are starting to look against the players who are actually paying attention and be willing to adjust to what they're seeing.

You shove. EVConsultant pauses for a while, but then folds.

Hand \#13: Play folds around to us in the small blind. DBagSurplus is in the big blind, and we look down to see 940 .

Question: What should you do?


My thoughts: To this point, DBagSurplus has played only one hand. So, he's been quite tight. I would start by raising any two cards in this situation. If we raise to pot, he has to fold $67 \%$ of the time. To have that not be the case, he'd have to call or raise $33 \%$ of the time. That hardly seems likely. Our steal equity is so high in this situation, we really didn't even have to look at our cards.

You raise to $\$ 6$ and DBagSurplus calls. The flop is $\mathrm{A} Q \uparrow \mathrm{~T}$. You're first to act.

Question: What should you do?
My thoughts: Many players would be tempted to make a c-bet here. However, DBagSurplus has already let us know he has a pretty strong range. That range likely includes a lot of broadway hands. Our hand has virtually no equity in this situation, and our steal equity is probably very low. It's best just to give up at this point. We had a profitable steal situation preflop, but that didn't work. Don't chase good money with bad money. Don't try to
make him fold a strong range on a board that connects well with his range.

You check. He bets $\$ 5$ into the $\$ 12$ pot, and you fold.
Summary
Hopefully this field trip gave you some good examples of gathering and using information in a game. Realize that this was only 13 hands! We were able to gather and use a tremendous amount of information in less than three orbits. If you keep your thinking cap on and your eyes open, you'll be amazed at how much information you can gather.

154

## What Now?

## Working Away from the Table

Becoming an expert hand-reader doesn't happen overnight. Knowing what to do with the information you gain doesn't happen overnight, either. Just like anything else in life, getting good at poker is going to take some blood, sweat and tears. There are some great ways to speed this process, however.

Online forums have changed just about every hobby and profession. All over the internet you can find forums with communities discussing details on practically anything you're interested in. These forums often are frequented by experts who are excited to share information with other people who have the same passion. Poker is no exception and to not take advantage of this resource is a shame. I'm certain I would not be the player I am today if it weren't for the thousands of responses I've received to questions I've put in poker forums. For example, the poker forums at dragthebar.com are an invaluable resource to learn about what other players have experienced from particular players at the very same levels you are playing.

Maintaining constant and consistent self-awareness at the table is highly important. Has a player made some play that is making you uncomfortable? Why is it making you uncomfortable? Are you able to duplicate that situation and use it against your opponents?

Yet another way to speed up your learning process is to get creative when you're working on a given hand. Once you've finished thinking about a specific hand, don't stop. Make eight to ten other situations out of that same hand. How would you
respond with different types of hands? How much stronger or weaker would your hand have to be before you would change your decision? What if your opponent bet larger or smaller? What would you do against those bet sizes and why? What if the effective stack size in the hand was bigger or smaller? What would you do given those stack sizes and why? What if you or your opponent were in a different seat? What would you do and why? What if your opponent had a different range? How different would it have to be for you to start changing your strategy?

You can go on like this for a long time and think about how your assumptions would change or how the math given those changes would necessitate you making a different decision. Thinking about these various options and working them out will help you develop a much stronger intuition at the poker table.

There are so many ways to get creative when you find exploitable patterns in your opponent's play. Don't be afraid to get creative. Never allow yourself to get in a mental rut. Constantly explore different ideas. One valuable tactic is to visit some games - where the stakes mean nothing to you - and explore some creative ideas against your opponents.

It's a Process
Remember that making assumptions is a growing process. When you see an opponent's hand, think about your assumptions. Were you right or wrong? Why do you think you were right or wrong? Sometimes our opponent has one of the best hands we put in his range, and sometimes he has one of the worst hands we put in his range. However, sometimes our assumptions were just off. Why were we off? How should we change our thinking, given what we saw? Keep an eye on your assumptions to see how you're doing. Do you generally tend to think their ranges
are smaller or larger than they really are? It's easy to find out when their range is larger than you thought because they'll show you a hand you didn't expect. It's often more difficult to find out if their range is smaller than you thought because they'll always be showing a hand you anticipated in their range.
However, if you constantly feel you're running into the top of a player's range, you may need to consider that their range is just smaller than you're thinking.

Above all, don't forget poker is a game. You should be having fun while you're learning. Don't take yourself too seriously. Relax a bit, clear your mind and enjoy your games. With time, work and experience, you'll soon find yourself happily in tune with the hole card confessions.

Quiz
(Answers on pg. 172)

1. What are three ways to speed up the learning process to becoming an expert hand-reader?
2. What are four different variables you could change in a given hand as you analyze it?
3. How can you explore different ideas at the poker table without losing what you would consider meaningful money?
4. Is it easier to tell if your opponent had a wider or smaller range than you assumed? Why?
5. What should you consider if you're always finding that you're running into the top of your opponent's range?

## Quiz Answers

## Introduction Quiz Answers

1. What are the two keys to good poker?

Accurate assumptions and making the best decision.
2. Into what two sections can we break up accurate assumptions?

Assumptions about an opponent's range and his strategy.
3. Which of the two keys to good poker is developed mostly through playing experience?

Accurate assumptions.
4. Even though beginners should be certain to focus heavily on understanding the mathematics of poker, why is developing accurate assumptions also vitally important?

If we have no assumptions, we cannot use math to discover the best play.

Information Quiz Answers

1. Name seven different types of information to gather at table.

Showdown hands, exposed hands, betting patterns, frequencies, physical tells, listening. timing tells, Meta game, notes, online tools.
2. Why can showdown hands provide more reliable information than exposed hands?

When your opponent exposes his hole cards intentionally, he may be introducing an element of deception.
3. What are some informational advantages of live play over online play?

You can observe physical tells and hear people talk about hands.
4. What are some informational advantages of online play over live play?

You are able to take notes, use database software and other online tools.
5. What are two reasons it's a good idea to begin learning Hold'em at small stakes?

You control the cost of your education and gain experience in the information battle in information saturated environments.
6. What is an information saturated environment?

An environment in which players are giving away valuable information often.
7. What criteria must be met in order for your giving off information to be a detriment?

Your opponent must be able to effectively gather and interpret information and also be willing and able to use it well against you.
8. On what level of thinking should you normally find yourself?

Level 2.
9. What is a good way to speed up the process of developing accurate assumptions?

By watching professionals gather and use information at poker-training sites like dragthebar.com.

## Player Types Quiz Answers

1. What are three different reasons someone may play poker?

Entertainment, money, a challenge, social involvement.
2. Which player type tends to want to protect their money the most?

The nit.
3. Which player type forces everyone to play large pots? The maniac.
4. Against what types of players will maniacs make a lot of money?

The curious type who is still hesitant to put lots of money in without having a big hand.
5. Against what types of players will calling stations make a lot of money?

The type who will make large and frequent bluffs.
6. Which player type is a good all-around playing style? The TAG.
7. What two important points should we take away from an understanding that every style can be profitable?

Game selection is paramount, and to crush a game we must be able to morph into different styles.
8. Against which type of player are you likely playing when you see a VPIP / PFR of 40/4.

A calling station.
9. What are four good ways to learn how different player types think?

Ask the opponent questions, listen to others as they play, post hands in poker forums, and categorize yourself.

Range Quiz Answers

1. Using estimates, what percentage of starting hands is $66+, \mathrm{AJ}+$ ?

About 7.5\%. There are 9 pairs that are about $0.5 \%$ each for $4.5 \%$. There are 3 unpaired hands at about $1 \%$ each for a grand total of $7.5 \%$.
2. How is shaping someone's range both an art and a science?

It's an art insomuch as we have to be able to skillfully use our informational tools to accurately, hopefully, assume what hands are in the range. It's a science in the sense we can analyze the shape of the range by understanding the certain probability distribution of each hand in the given range.
3. How is shaping a range similar to sculpting?

You start with a large chunk of possible hands and chisel away pieces of that chunk of possibilities as you gain more and more information.
4. What type of range has only strong and weak hands in it?

A polarized range.

Eagle Eyes Quiz Answers

1. Why is it always important to keep your focus at the table regardless of whether or not you're involved in hand?

Information is always being given at a table, and that information can make you loads of money.
2. What are three noteworthy aspects of a person's preflop strategy?

Answer examples: Note specific hands in specific positions, see if he varies his raise sizes based on different hand strengths, see if is he aware of position.
3. What are seven thoughts you can note about a player's postflop strategy?

Answer examples: Do they c-bet marginal hands? Do they c-bet more in position than out of position? Do they consider the texture of the board when c-betting? Do they play fit or fold on the flop? Do they slowplay often? Do they fire a c-bet on the flop and then give up from there if they don't have a strong hand? Do they bet marginal hands on the river? Can they turn a pair into a bluff?
4. What is the important concept behind the acronym DST?

Do not get too aggressive with information after only seeing it one time.

## Enter Steal Equity Quiz Answers

1. What are the two ways you can win a pot?

Showdown the best hand or have your opponent(s) fold.
2. What are the two types of equity to consider during a hand?

Showdown equity and steal equity.
3. How can you make profitable a hand with little showdown equity?

Add high steal equity.
4. What are five important factors to consider when evaluating the strength of your steal equity?

Your opponents, your position, your image, stack sizes, Meta game.
5. Against what type of opponents do you have steal equity?

Tight players and players who play fit or fold postflop.
6. How does position affect your steal equity?

Playing a hand in position increased your steal equity.
7. When you have low steal equity, how should you adjust your starting hand range?

You'll need to lean more about the strength of good starting hands relative to your opponent's range. You want your range to be stronger than your opponent's range.
8. What determines how loose you can be preflop?

The amount of steal equity you have.
9. What two questions are you trying to answer on the preflop street?

Is this hand likely to get to the flop? If so, what will my situation probably look like postflop?

10 . What is the bread and butter of poker?
Playing in position with the initiative in a raised pot.
11. You're in a $\$ 2 / \$ 4$ game that only has six players. Everyone has $\$ 400$. All the players are very tight; however, the table features an extreme calling station in the big blind. You're UTG with Q8s. What should you do?

While Q8s doesn't make most starting hand charts to be played UTG, our situation demands an exception. With the extreme calling station in the blinds, we're almost certain to see a flop. However, with the tight players at the table, they're most likely to fold to our UTG raise unless they have a decent hand. Since decent hands for them are relatively infrequent, we're likely to see them fold quite often. Then the big blind will do his job and call.

What will our situation look like? We'll be in the bread and butter spot. And while our steal equity still isn't that high, our hand is actually quite strong against an extremely loose player. The Q-high has value all by itself. However, we'll also be able to extract value if we hit a pair or something stronger, since calling stations
tend to call with weak holdings postflop. We definitely want to be raising in this situation. A raise is superior to folding because we don't want to miss the opportunity to play a pot against the big blind. Raising is better to just calling; if we call, we don't get as good an opportunity to play against the inept big blind and be in the bread and butter spot.
12. You're still at the same table as question 11; however, now the calling station is on the button, and you're in the cutoff seat. You have KTo, and the action has folded to you. What should you do?

With the calling station yet to act, we'll, again, almost certainly be seeing a flop. Unfortunately, we'll most likely be playing out of position when he calls on the button. However, we also need to consider the strength of our hand. While KTo isn't normally consider a very strong starting hand, it's certainly much stronger than the calling station's range. Again, if we hit a pair or better, we'll be able to extract lots of value with big gets postflop. So, while we won't be in the bread and butter position, our hand strength still warrants a raise here.
13. Again, you're at the same table as questions 11 and 12. However, now you're the button, and the calling station folded in early position. Everyone has folded to you, and the blinds are very tight players. You look down and see 95 o. What should you do?

A starting hand like 950 certainly is garbage. However, with the tight blinds, we can probably just start by raising any two cards here. We're so unlikely to see a flop we can just take advantage of their tightness and bend over to pick up the money. Even if they call, at
least we're still in position. But, don't take this too far. If a tight player calls you, be on your guard. Exercise extreme caution about trying to get a player to fold a strong range.
14. At the same table yet again, but now one of the tight players has raised from UTG to $\$ 20$. He just lost the previous hand, and only started the hand with $\$ 120$. The calling station has folded with everyone else, and now the action is to you on the button. You look down to see QJs. What should you?

A holding like QJs on the button presents a most enticing situation. However, several troubling things are going on in this hand. The UTG player is tight. His range is likely to be quite strong here, and QJs isn't doing well against that range, in terms of showdown equity. Also, since his range is strong, our postflop steal equity is low. To make matters worse, the SPR will be very small on the flop. The pot will be \$46, and he'll only have $\$ 100$. Even though we're on the button, we're going to have little steal equity mixed with poor showdown equity. Folding is the prudent play here.
15. The same situation as number 14 ; however, now the calling station in middle position has called UTG's raise. While UTG still started with only $\$ 120$, both you and the calling station have over $\$ 400$. What should you do?

Multi-way pots always get a bit more complicated. Our situation against the UTG player - still similar as in question number 14 - has changed just slightly. When a tight player is out of position against two opponents, he normally only shows aggression on the flop if he has a strong hand. So, we'll get a somewhat more honest
response from the UTG player when we see a flop with another player involved. Also, with the calling station entering the hand, we just picked up an enormous amount of potential value postflop. Our hand against his range is very strong, and we're in position against him with much more money left in our stack. You definitely would want to call here.

## Exploiting a Range Quiz Answers

1. Through what lens should we view the shape of our opponent's range?

Through the lens of our opponent's perception of his own range.
2. When you're playing with deeper stacks, what are three reasons the river is the most important street?

We have all the information we can have in the hand, the bets are the biggest and someone has $100 \%$ equity unless there is a tie.
3. What are the player types that allow us to quickly discover their bell-shaped range?

The nits and many TAGs.
4. What should your normal response be to players who want to keep the pot small and see a showdown with marginal hands?

We should make the hand very expensive for them when we feel we're behind.
5. What should your normal response be to players who are waving the white flag with a weak range?

Bend over and pick up the money by making a bet.
6. What is almost always a terrible idea against a strong range?

Trying to make the opponent fold.
7. What do large bets normally mean from most opponents?

Either your opponent is trying to get you to fold or they're trying to get a large pay off with a strong hand.
8. Let's say your opponent has a polarized range and bet $1 / 2$ pot on the river. How many more strong hands than weak hands would your opponent need to have in order for you to have a breakeven call?

Since you need to win greater than $25 \%$ of the time, a breakeven call would occur when your opponent has three times more strong hands than weak hands.
9. What information is very valuable when shaping your bluff catchers?

Knowing if your opponent will turn hands like pairs and A high into a bluff instead of trying to see a showdown with them.
10. Against what types of players do you often run into a flat range?

You see these many times from calling stations and extreme maniacs.

## Advanced Concepts Quiz Answers

1. What are two big, common mistakes players make when playing against level 1 thinkers?

Being too concerned about having detectable, exploitable patterns and not sizing their bets well.
2. What is the basis of a level 2 thinker's perception of his own hand range?

It's based on his perception of your hand range.
3. Why is it not good enough to simply know how to trick good hand-readers?

You must also be able to exercise good judgment to know when to use your tricks.
4. Until a player proves to you he can think on level 2, on what level should you assume he's thinking?

Level 1.
5. What are three factors that increase your implied odds?

Your opponent has a strong range, you're in position and your opponent is aggressive.
6. For what reason might you make a call you know is a negative expectation value call?

In order to gain information you feel will make up for the money lost in making the call.
7. What are three ways to make some assumptions about a new player to the table?

How much money does he have at the table? How many tables is he playing? What's his screen name? Did he post the blind? Has he opened a pot by merely calling?
8. What are three benefits of being an aggressive player, especially against level 2 thinkers?

You have the initiative in the hand, semi-bluffs are less expensive, you gain a customer, you can add more bluffs to your range.
9. Against what type of players does aggression have less value?

Level 1 players.
What Now? Quiz Answers

1. What are three ways to speed up the learning process to becoming an expert hand-reader?

Post and discuss hands in poker forums, change variables in a hand and analyze it again, get creative at the table to explore new ideas.
2. What are four different variables you could change in a given hand as you analyze it?

Your holding, the effective stack size, bet sizes, positions, different ranges.
3. How can you explore different ideas at the poker table without losing, what to you, is a lot of money?

Go to a level much lower than you normally play where the money doesn't mean anything to you.
4. Is it easier to tell if your opponent had a wider or smaller range than you assumed? Why?

It's easier to tell if he had a wider range because the hand he has will not have been in the assumed range at all.
5. What should you consider if you're always finding that you're running into the top of your opponent's range?

Perhaps his range is just smaller than you're assuming.

174

## Glossary

6-Max: A game format where only six players are allowed at the table.

All-In: Wagering all the money in your stack. See "Push" and "Shove"

Backdoor Flush Draw: When you have suited cards as your hole card and one card on the flop matches the suit of your hole cards. You need a card of that suit on both the turn and river to make a flush.

Backdoor Straight Draw: When you have a straight draw on the flop which requires both a turn and river card to make a straight.

Bad beat: Someone losing a hand when you they were a strong odds favorite to win earlier in the hand.

Bankroll: An amount of money a person has set aside which they'll be using to play poker.

Bluff Catcher: And hand that is weak but can beat an opponent's bluff.

Board: All of the community cards as a whole.
Button: The player to the right of the small blind. This is a coveted position as you get to act last postflop.

Buy-In: The amount of money a player brings to a table.
C-bet: Short for continuation bet. See Continuation Bet.

Check It Down: Checking in a hand with the intention of going to showdown.

Community Cards: The cards placed in the middle of the table that all players may use to make their best hand. See "Board".

Continuation bet: A bet on the flop by the preflop aggressor.
Covered: When one player has more money than his opponent, he is said to have him covered.

Cutoff: The seat to the immediate right of the button.
Dry board: Community cards that are not connected in a way that gives many draws to your opponent's range.

Early position: Players to the left of the big blind. These positions are at a disadvantage because they are often one of the first players that have to act on any street.

Effective Stack Size: The smallest stack involved in a hand.
EV: Short for expectation value.
Expectation Value: The average amount of money you can expect to win or lose when you make a wager.

Exploit: To take advantage of an opponent's weaknesses.
Flop: The first three community cards which are exposed simultaneously. This can also be used as a verb. For example, "I flopped a very strong hand!"

Flush: Five cards of the same suit.
Fold Equity: See Steal Equity.

Four-flush: A flush draw needing one more card to complete the flush.

Full-Ring: A game format where 9 to 10 players are allowed sitting at the table.

Game Selection: Picking the game in which you're going to play.

Hand-Reading: Taking an educated guess at what types of hands your opponent may have as his hole cards.

Heads up: Having only one opponent in a hand or in match.
Hole cards: Cards dealt to a player facedown so only he can see them.

HUD: A heads up display. This is a software that displays statistics about your opponent's play on an online poker table.

Image: How other players at the table are likely to perceive you as a player.

Implied odds: Taking future betting into consideration when examining our reward to risk ratio.

In position: Acting last in a hand.
Initiative: To have the betting lead on a given street. This happens by being the aggressive person on the previous street. For example, if you are the last (or only) person to raise preflop, you will have the initiative on the flop.

Isolate: To make a raise in an attempt to play a hand against only one player.

Late position: Players to the right of the small blind.

Lay down: The decision to fold a good hand.
Level: The deepness of thinking about a poker hand.
Leveling Wars: When competent opponents are trying to stay one level deeper in thinking than their opponent.

Limp: Just calling preflop instead of raising.
Loose: A player who plays a lot of hands preflop is considered a loose player.

Meta game: The psychological aspects that develop during a poker game.

Micro Stakes: Poker games with blinds normally smaller than \$0.10 / \$0.25.

Middle position: Players between early position and late positions.

Minraise: To raise the smallest amount allowed.
Miss: Another card is dealt on the board, yet your hand does not improve.

Monster: An incredibly strong hand.
NLHE: An acronym for No-Limit Hold'em.
Nuts: The best hand possible.
Offsuit: Hole cards that do not have matching suits.
Open: To take the first action preflop by raising or calling.
Orbit: When the button goes one full rotation around a poker table.

Out: A card that can improve a hand which is not currently the best to being the best hand.

Out of position: Having to act first during a hand.
Overbet: Betting larger than the pot.
Overcard: A card higher than any card on the flop, or a card higher than either of your hole cards.

Overpair: A pocket pair that is higher than any card on the flop.
Pocket pair: Having a pair as your two hole cards.
Pokerstove: A software that can be used to evaluate showdown equity.

Post the Blind: Paying the blind so you are not required to wait until you're the big blind to start playing.

Postflop: Refers to the play in a hand just after the flop is dealt. It includes play on the flop, turn and river.

Pot: The money already wagered and in the middle of the table. It's also used to refer to a hand. "There were four people in the pot." means there were four people playing the hand. This can also be used as a verb. "I potted the turn." means that player bet the size of the pot on the turn.

Pot odds: The odds being offered to you by the pot compared to what you must call to continue in the hand.

Pot Size Raise: Raising an amount that offers your opponent 2:1 odds.

Preflop: Refers to the point in the hand after the hole cards have been dealt but before the flop has been dealt.

Push: Wager your entire stack by going all-in.
Range: A group of hands. For example, sometimes you'll hear a player say, "I put him on AK." AK is just a single hand. Good players tend to work with a range of hands. So, instead they may say, "I think he can have hands like TT, 67s and AK."

Rebuy: To bring more chips to a poker table
Reload: See Rebuy.
Reraise: A raise after someone else has raised.
Reward to Risk Ratio: The idea of pot odds expressed as a ratio.

Semi-bluff: A hand which is probably not the best hand right now but has a good chance to improve to the best hand.

Session: How poker players refer to a given period of time (usually one sitting) where they played poker.

Set: Having a pair as your hole cards and a matching rank on the flop.

Set-mining: Calling preflop with a pocket pair with the idea of either catching a set or folding to any aggression from your opponent.

Shove: See "Push".
Showdown: The end of a poker hand where it's determined who has the best hand by one or more players exposing their hole cards.

Showdown Equity: The amount of equity a player has if all the community cards were dealt without any further betting.

Slowplay: To check or simply call an opponent's bet instead of betting or raising with the idea of winning more money on later streets.

SPR: An acronym for Stack to Pot Ratio. See Stack to Pot Ratio.

Stack: The amount of money a player has left to be wagered.
Stack to Pot Ratio: The size of the pot in relation to the effective stack.

Stakes: The size of the blinds in the game you're playing.
Steal Equity: What we gain when our opponent folds in response to our aggression.

Sticky: To be prone to call bets with weak hands instead of folding.

Straight: Five cards of mixed suits in sequence.
Street: A round of betting after another card(s) has been dealt.
Tell: A hint, other than betting tendencies, which may help reveal an opponent's likely hand.

Texture: The composition of the community cards.
Thin Value Bet: To make a bet that has a very small expectation value.

Tight: A player who plays very few hands preflop is considered a tight player.

Tighten Up: To start playing tighter preflop than one previously was playing.

Tilt: When a players makes decisions based on something other than logic. A classic example is when someone is upset for some reason and as a result is playing badly.

Timing Tell: The amount of time your opponent takes to make a betting decision, which gives you information about his range.

Trips: Three of a kind where you have a hole card that matches two cards of the same rank on the board.

UTG: The player to the immediate left of the big blind.
Undercard: A card lower than another specified card or group of cards. Example: If the flop was KT3, and a 2 came on the turn. The 2 is an undercard to the flop.

Value-bet: Betting when one believes he has the best hand.
Villain: An opponent in a hand.
Wet Board: Community cards that are connected in a way that gives many draws to your opponent's range.

Wide Range: A range composed of a large number of combinations.

Win Rate: A player's rate of earn.


[^0]:    ${ }^{1}$ Both of these can be lumped together in the term strategy. Our opponent's strategy contains both his range and how he plays the different parts of that range.

[^1]:    2 In many ways I consider this book to be part two of Poker Math That Matters. I'm building on terms and concepts I introduced in that book. So, if you find yourself confused by terminology or math in this book, please read Poker Math That Matters and then return to this book.

[^2]:    ${ }^{3}$ I do concede that a poor player is also a relative term and in some games level 2 thinking will not be sufficient against the poor players. However, in the micro and small stakes online and the vast majority of live games, level 2 thinking is the place to be.

[^3]:    4100 x means you have 100 times the big blind in your stack. If this type of terminology is confusing to you, you'll want to get a copy of Poker Math That Matters.

[^4]:    5 We'll explore the power of position and analyzing a situation later in this book.

[^5]:    ${ }^{6}$ Obviously when playing live you will not have access to these numbers, but you will be able to get a good feel for the player's preflop tendencies.

[^6]:    7 Notice neither the VPIP nor PFR have anything to do with postflop play. However, I've found the majority of the time an aggressive player preflop is also aggressive postflop, and a passive player preflop is also a passive postflop.

[^7]:    8 There are 1,225 after you eliminate your two hole cards.

[^8]:    ${ }^{9}$ See Poker Math That Matters pages 71-75.
    10 An unpaired holding is actually more like $1.3 \%$.

[^9]:    ${ }^{11}$ At this stage, you should be able to figure out the unpaired hands in that range make up $64 \%$ of the range. If not, Poker Math That Matters is for you.

[^10]:    ${ }^{12}$ The pictures of the range shapes are meant to give a general idea of the most possible hands in a range. While this specific example wouldn't actually create an actual bell shape, the point of this category is that he has little to no hands other than those he would consider marginal holdings.

[^11]:    13 Many players have a hard time folding what was a strong hand on a previous street even though later cards have destroyed their hand.

[^12]:    14 For details, visit www.qtippoker.com.

[^13]:    15 Again, to understand how to make a pot-sized raise and understand the percentages in the game, get my book Poker Math That Matters.

[^14]:    ${ }^{16}$ The exception may be if you have an incredibly strong hand. Then you should probably just slowplay and try to let your opponent catch a little something.

[^15]:    17 Sure, you want to know the river, don't you? But, always remember to focus on what you can control. The hand is over at this point. You played as well as you knew how. The end result doesn't matter. So, as practice, I'll leave you forever in suspense.

[^16]:    18 A 3-bet is when a player reraises an opponent's preflop raise.

