Gareth James

Gareth James is a professional poker player and coach originally from Eindhoven in the Netherlands. He is also a qualified teacher and SCOOP champion.

He started playing single-table and multi-table SNGs before moving over to MTTs, and then eventually quit his job as a music teacher to pursue a career in poker.

He hosts the popular podcast *Poker On The Mind* with Dr Tricia Cardner and runs the successful tournament poker coaching business, MTT Poker School.

Gareth now splits his time between running the business, playing online tournaments and making memories with his wife, Helen.

THE FINAL TABLE

Gareth James

Foreword by **Phil Hellmuth**

Play your best poker when the most is at stake

Contents

Foreword

What I really love first of all about *The Final Table* is that Gareth James gives long detailed examples of how to play hands at a final table. The second thing that I love about this book is that it focuses on the most important moments of your poker career: the final table appearances.

Regarding reviewing long detailed examples of hands, one has the chance to glean insight on all streets. One can always imagine how a specific hand at a specific time might be played. One line may appear better to you and one line may appear better to the author, but one has the freedom to choose one's own path. The author always supports his suggested plays with solid mathematics.

Understanding the math that underpins a good professional poker player's theories can be incredibly insightful. Why do players make this move? Why do they make that move? The math will always back it up.

Of course, I encourage free thinking as you read the text and always check out the charts! Is this something (the math presented within the book) you can see yourself using in your own game? Or, is this something that you can use to decipher what other players are doing? Either way, there is tremendous knowledge to be gained!

Phil Hellmuth

Introduction

When I had the opportunity to write my first book *Purposeful Practice for Poker* with Dr Tricia Cardner, I achieved a long-held dream. When Byron asked me to go solo this time and write a book on a topic I feel the poker world needs to learn more about, I was thrilled!

If you haven't read the first book, then I highly recommend picking it up before you continue so that you can make the most of the ideas and strategies in this one. My goal for this book is to inspire you to put the reps in off the table and then reap the rewards on it. As I'll discuss later, the best way to get good at understanding the nuances of final table strategy is to run a ton of spots and explore the solutions. Then you can aim to work out exactly what is going on. There really is no shortcut for hard work. Having said that, I hope that this book will show you how to avoid some common mistakes and misconceptions, so that when you make your next final table you're much better prepared.

Over the last 10 years as a poker player and coach I've had the chance to observe, first hand, just how many mistakes are made on final tables, both live and online. Some of those hands were even played by me as I realised, through the use of different solvers, that I was getting it very wrong, and so were a lot of other players. This book is an amalgamation of all my ideas that will help you avoid those mistakes in the future. It's better to learn from the mistakes

of others, than those you make yourself. The final table is the real business end of the tournament and mistakes you make there can cost you thousands, if not millions of dollars. In that regard, this book might be the best investment you ever make for your poker game, so I'd like to thank you for picking it up, but I think you'll thank yourself too when your results improve.

I recommend reading this book multiple times depending on the area you want to focus on. I've broken it down into three parts:

1) Theory
2) Practical hands
3) Continuous improvement

In the theory section I'll discuss ICM and risk premium, what they are and how they guide your strategies in different situations. We'll also take a look at an introduction to flop strategy and look at how postflop strategies change based on stack sizes and position.

The practical hands section is split into 4 areas: 8-10 handed, 5-7 handed, 3-4 handed and heads up. I'll show you how things change at the different stages of the tournament and the things you need to think about when pondering your next decision at a final table. There are certainly more preflop solutions than postflop and this is planned. The preflop solutions are such an important foundation that you can't even begin to look at postflop without properly understanding preflop strategy and adjustments.

Finally, I want to show you how you can continuously make improvements by leveling up your approach to training. Whenever I release new content, a new course or a new book, I recognise that some of you may believe that I'm educating weaker players and affecting my own ROI. While that may be true to some extent, and I'm quietly confident that a lot of people will end up reading this book, I'm similarly confident that many will not put what they learn into practice. Now I don't want to alienate you right away if you're the kind of person who will skim this book and convince yourself that you've done enough study for one year. Instead, I want to inspire you to put the practice in and show you that it's possible to make continuous improvement every single day. That's my non-negotiable, number one goal and hopefully, by the end of the book, it will be yours too.

I'd ask you to keep an open mind as some of what we discuss in this book might go against conventional wisdom, or at least what you currently believe to be true. But you can be confident that any controversial ideas in this book are backed up by solver solutions. Now you might already believe that 'no one plays like a solver', or something to that effect, but if you'd watched a final table from 5 years ago, it would have played a lot differently from today. Players are getting better and the development of software programs has improved the average player's understanding. There are moments throughout this book where I've discussed the idea of adapting to different player types, but my main focus is on the solver solutions. We need to start from somewhere and as the game progresses and players develop, the solver solutions are unlikely to change. To that end, I won't talk about current trends since they won't be the current trends for long. If you're reading 'solver-approved' or 'solver-based' and wincing at the idea of a computer guiding your strategy and instead want to focus on gut feelings and reads, I'm afraid you picked up the wrong book. It's impossible to form an outstanding strategy without understanding what the equilibrium solution looks like first. So even if you currently have an aversion to solvers, I can assure you that you'll still get a lot from these pages and I encourage you to stick with me as I aim to break down the solutions into actionable heuristics, or what I sometimes refer to my students as 'lightbulb moments'. Having said that, I have addressed the idea of exploits in the section on adjusting for the population to give you some ideas on how you might approach studying for the games you play and the players you face.

As I mentioned before, the final table is the real business end of the tournament. It's where more money is won and lost than any other stage of the tournament. I believe that final table strategy is the most important area to focus on so you more frequently finish in the top 3 places, which are, by far, the largest payouts. While this book is aimed at beginner and intermediate players, reviewing many hours of hole cards up footage of final tables reveals that even top pros are still making many mistakes and could benefit from additional final table strategy work.

Throughout this book I've aimed to use 'we' because we're in this together. I want to hold your hand and walk you through a myriad of final table spots and situations so together we can improve your results.

Many of the major online sites make final table hole cards up footage available either through their client or via a live stream and there are several You-

Tube channels that have been kind enough to record this for you. We'll discuss how to make the most of these later in the book.

I will teach you how to interpret a solver solution and, more importantly, think logically about each spot. Together we'll work out why the solver suggests certain actions and constructs the different strategies. You want to make your final table runs count. And that means playing well and making great decisions.

Throughout this book I'll encourage you to think in terms of ranges, rather than actual hands. In each hand example, I've included a hand as this is the same as how you'll review hands in the future (because you'll actually be dealt a hand), but a good exercise can be to hide your hole cards and think about what your range wants to do/looks like instead. A lot of newer players to the game focus too much on what they would do with their exact hand and they're missing the bigger picture. When you play, and especially when you study, you should think about what you want to do with other hands in your range. This is why I won't just give you the answer and move on. Instead, I'll look at what your entire strategy looks like so you form a better understanding of the spot or situation.

So you might be thinking why I'd want to write a book on final table strategy and improve the approaches of many of my peers. The answer is simple: I want to help. I want to help you get better and turn those final table runs into top 3 finishes. I want you to help you make better decisions at the final table. I want to help you make more money and have more success in poker. But that is only going to happen if you're willing to put in the work. You've taken the best first step in purchasing this book, so make sure you read it, take notes, and commit to working on your final table game in the right way.

Final tables are amazing. The thrill of being just a few players away from success is exhilarating. And it can be nerve-wracking, too! Imagine then, for one second, how much better it would be if you actually knew what you were doing. Not what you think is right, right now, but what is *actually* right?

Your number one goal in poker should be to make the most money. That doesn't mean that final table strategy is all about winning, though. You should look to take the highest $EV decision every time. Sometimes that means folding AK to a jam and a call and sometimes it means 4-bet jamming with A2s. We'll discuss later when it might be ok to pass on very marginal spots, but your main focus should be on taking the profitable spots when they present

themselves. If you don't know when those spots come up, then this book will go a long way to identifying those situations. And these are spots you should continue to study to form an even better understanding.

I've loved writing this book and I hope it gives you a solid foundation for understanding final table spots and situations. Before we dive in, I'd like to leave you with this well-known proverb:

"You can lead a horse to water, but you can't make it drink."

By the end of this book, I want you to be so thirsty for success, that you're unbelievably motivated to put in the effort off the table to improve your game.

Gareth James, April 2023

What is ICM?

ICM stands for Independent Chip Model and is a way of assigning a $ value to a stack of tournament chips. It uses stack sizes and payouts to determine the probability of each player finishing in each of the remaining positions (1st, 2nd, 3rd, etc). This mathematical model can help us understand and calculate the real monetary value of our chips, which in turn helps us form a strategy at the table. The model factors in the changes to each player's equity depending on the outcome of the hand and the players involved, which in turn affects the strategies of all players. There are times, for example, when you can fold and make money because your equity improves as each player is eliminated.

Let's use a 10-person SNG with a $1,000 buy-in and no rake that gives each player 1,000 chips at the start of the tournament as an example *(Diagram 1)*. The payouts are $5,000 for 1st, $3,000 for 2nd and $2,000 for 3rd.

Each chip has a value, and in this example each chip is worth ~$1, worked out as $1000 / 1000 chips.

If we move to the bubble of the tournament, so there are four players left with three players paid and, miraculously, all four remaining players have equal stack sizes, the expected value ($EV) of their stacks has changed, but the value of each chip has not. 2,500 chips is worth $2,500, which means that each chip is still worth $1 *(Diagram 2)*.

Stack size	Equity
Player A: 1,000	$1,000
Player B: 1,000	$1,000
Player C: 1,000	$1,000
Player D: 1,000	$1,000
Player E: 1,000	$1,000
Player F: 1,000	$1,000
Player G: 1,000	$1,000
Player H: 1,000	$1,000
Player I: 1,000	$1,000
Player J: 1,000	$1,000

Diagram 1

Stack size	Equity
Player A: 2,500	$2,500
Player B: 2,500	$2,500
Player C: 2,500	$2,500
Player D: 2,500	$2,500

Diagram 2

At the end of the tournament, the winner will have all 10,000 chips, but that is only worth $5,000 since that was the prize for 1st place and each chip is now worth only $0.50! They started the tournament with each chip valued at $1 and finished the tournament with each chip worth just $0.50.

The reason for this is that half of the prize pool is taken out to pay the players who finished 2nd (30% of the prize pool) and 3rd (20% of the prize pool) so there is only $5,000 remaining and not the full $10,000 from the start of the tournament. Unless the format is winner takes all, tournaments and SNGs will have a set number of prizes. Single table SNGs might start with 9 or 10 players and pay the top 3, whereas in most MTTs (multi-table tournaments) everyone who reaches the final table is already guaranteed a payout and will win more money as each player is eliminated.

Let's say that on the bubble, Player D shoves and Player A calls. Player A comes out victorious, and Player D busts and therefore bubbles the tournament, going home with nothing *(Diagram 3)*.

Stack size	Equity	Difference
Player A: 5,000	$3,833.33	+$1,333.33
Player B: 2,500	$3,083.33	+$583.33
Player C: 2,500	$3,083.33	+$583.33
Player D: 0	$0	-$2,500

Diagram 3

Notice how Player A's equity has increased to $3,833.33, but it hasn't doubled to $5,000, which is a common misconception, mainly because the most anyone can win in this tournament is $5,000. The difference in equity has been split amongst the other two players, Player B and Player C, who weren't even involved in the hand. Player A improved the other remaining players' equity by busting Player D and bursting the bubble, thus giving everyone remaining a guaranteed cash.

While Players B and C had no risk in this hand, Player A took on a sizeable risk to burst the bubble and eliminate Player D. Player A would have lost $2,500 in tournament equity if they'd lost and yet only gained $1,333.33 when they won. This means that they needed more equity to call the all-in than they would have in a Chip EV (cEV) scenario like a cash game with no rake or a winner takes all tournament. In a cEV scenario, Player A would only need 50% equity to call the all-in since they are calling 2,500 to win 2,500. In this specific example, they need ~65% equity instead because they lose more equity when they lose than they stand to win when they win the all-in. This means there are major strategic adjustments that you need to make on a final table compared to a cash game or winner takes all tournament.

Bubble Factors

The *bubble factor* is worked out by dividing the change in our tournament equity if we lose by the change in our tournament equity if we win. Essentially, it's giving you a numerical figure that shows you how costly (or profitable) it can be to get involved in pots with different players at different stages of the tournament. The higher your bubble factor, the higher your risk premium and the tighter you need to play against that opponent.

In order to work out the bubble factors and risk premiums, all the solver

needs are the chip stacks of each remaining player and the remaining payouts. It doesn't take into account the skill level of each player, the positions of the blinds, the positions of each stack at the table or how long is left on the clock until the blinds go up.

When it comes to solving specific hands, of course the solver needs to know the positions of the blinds and the positions of each stack around the table so that it can solve for the exact spot. Is the big stack on the BTN or UTG? Is there a shortstack in the blinds? It starts with the bubble factors and risk premiums and then solves the spot to give each player a specific strategy.

Very often you'll hear the argument that the ICM isn't perfect because it assumes everyone plays perfectly and doesn't take into account the relative skill level of each player. For sure the model isn't perfect, but I have often heard that used as an excuse to make poor decisions at a final table and this is a poor approach. I'm a big fan and believer in the Independent Chip Model and I think it helps us understand how strategies shift and change in different scenarios at the final table. Some players may argue that they are willing to take a -$EV spot to gain a big chip lead that they will then use to dominate the final table, but future $EV is very hard to quantify. How much of an edge are you willing to punt in order to give you a chip lead and how much will this chip lead really gain you in $EV in the future?

I believe that the better approach is to use the software tools to figure out the why and use that to guide your strategy. If you take just a few ideas from this book, you will already be playing final tables better than most of your opponents. The edge you gain from these ideas will more than make up for any kind of completely unquantifiable edge you could potentially gain should you decide to gamble more frequently and 'go for the win'.

With 9 players remaining, why would we need to work out the bubble factors since it's not the bubble and everyone is already guaranteed at least $2,727.61? *(Diagram 4)*.

I believe that the term *bubble factor* was created when they wanted to focus on bubble strategy, and while most of the time the bubble has long since burst when you make the final table, there are still mini-bubbles that occur between each payjump. As each player is already guaranteed at least $2,727.61, it means that a new bubble is created between that and the next payout.

In our example earlier with 3 players left and 3 places paid ($5,000,

$3,000, $2,000), each player is guaranteed at least $2,000. They can't win less than that. But there is a bubble between 3rd and 2nd of $1,000 and so while it's not a bubble like the actual money bubble, it is still a mini-bubble.

Place	Prize
1st	$40,916.84
2nd	$29,165.42
3rd	$20,790.09
4th	$14,819.90
5th	$10,564.10
6th	$7,530.45
7th	$5,367.97
8th	$3,826.46
9th	$2,727.61

Diagram 4: Example final table payouts

Once we have the bubble factors we can work out the risk premiums.

I've included this working for clarity, but if you have no interest at all in understanding why this is important, then feel free to skip this section. If you run into spots/situations later in the book where you'd like some more clarity on these concepts, then come back and read this chapter. The mathematical examples I'm using here are to highlight what the model is and how it works, and are not actually necessary to understand. With the software tools available today, you shouldn't ever need to calculate any of this yourself or need to perform these calculations at the table in real time. Use the software to do the hard work, so you can concentrate on learning the strategies and implications.

How did we arrive at needing ~65% equity instead of 50% in our example before? Why do we suddenly need ~15% more equity in this spot?

We can work this out by taking the change in our tournament equity if we lose and divide that number by the change in our tournament equity if we win, as follows:

> Bubble factor = Change in tournament equity when you win / change in tournament equity when you lose

Change in tournament equity if we lose = $2,500
Change in tournament equity if we win = $1,333.33

$2,500 / $1,333.33 = ~1.875.

This number is called the *Bubble Factor* and can in turn be used to work out the *Risk Premium*.

What is Risk Premium?

Risk premium is the extra equity you need to call an all-in or to realise postflop on a final table.

In order to calculate the risk premium, we can use this formula:

1/ ((1/BF) + 1) - 0.5

This might look more complicated than it is, so let's simplify it:
Do 1 divided by the bubble factor on a calculator

So, 1/1.875 = 0.53

Then add 1.

0.53 + 1 = 1.53

Then use the 1/x button

1 / 1.53 = 0.65

And then take off 0.5

0.65 - 0.5 = 0.15

So the risk premium here, the extra equity that we need to be able to realize, is 15%.

Let's continue the example from above, and have the blinds at 125/250 with a 25 ante so that each player has 10bb remaining *(Diagram 5)*.

Stack size	Equity
Player A: 10bb (BB)	$2,500
Player B: 10bb (CO)	$2,500
Player C: 10bb (BTN)	$2,500
Player D: 10bb (SB)	$2,500

Diagram 5

In this example, Player D shoves from the SB into Player A in the BB.

The SB shoves 9.9bb and the BB only has to call 8.9bb since they already have 1bb invested. There is also 0.4bb in antes in the middle. This means that the BB is calling 8.9bb to win 11.3bb, meaning they only need ~1.27:1 or ~44% equity against the SB's shoving range.

Now Player D (SB) can actually shove 99.1% of hands here, which is roughly any two cards minus 72o. Using an equity tool like Flopzilla or Equilab we can work out that Player A (BB) can call 69.5% of hands: 22+, A2s+, K2s+, Q2s+, J2s+, T2s+, 95s+, 85s+, 76s, A2o+, K2o+, Q2o+, J2o+, T5o+, 96o+, 87o.

And yet in this example, Player A (BB) can actually only call 15.7% of hands, which is a huge difference. We've already worked out that the extra equity we need to call here is ~15%, so we don't need 44% we need 59% instead.

Against 99.1% of hands, Player A (BB) can now call 17.2% of hands: 55+, A5s+, K9s+, QTs+, A8o+, KTo+. This isn't far from the actual solver solution of 15.7%, 66+, A5s+, A8o+, KTs+, K9s, KJo+, KTo, QJs *(Diagram 6)*.

"Why isn't it perfect?" I hear you ask. One of the key differences in a solver simulation over an equity calculator is that the solver is accounting for active card and folded card removal. Risk premium is only a rough approximation that can help you make decisions at the table. It doesn't fully replicate the $EV calculation and some differences are to be expected.

8-10 Players Remaining

Most of the time when you make a final table, you are long inside the money. There will be times, especially in smaller field tournaments, where you reach the final table and you're still not yet in the money. This section is dedicated to those situations and how best to approach them.

We discussed in a previous chapter the idea of bubble factors and how there are mini-bubbles at each pay jump. When you reach a final table where you're still not yet in the money, this is a much bigger bubble and the bubble factors and risk premiums will be higher.

Let's use 8 players left and 7 players getting paid as our first example. The bubble factors and risk premiums will be very different from when there are 8 players left who are already guaranteed 8th place money. This in turn has a knock on effect on the strategies for each player.

To highlight the differences we're going to keep the stack sizes the same and change the payout structure. Here are the stack sizes for the final eight players *(Diagram 41)*.

UTG	EP	MP	HJ	CO	BTN	SB	BB
10bb	22bb	38bb	67bb	26bb	55bb	16bb	60bb

Diagram 41

Payout structure 1
(not yet in the money)
Big $109, $4K GTD
49 runners, $4.9k prize pool,
7 paid

1) $1,726
2) $1,076
3) $714
4) $512
5) $380
6) $282
7) $210
8) $0

Payout structure 2
(already in the money)
$109 Sunday Million, $1M GTD
- 2-Day Event 8,803 runners,
$1m prize pool, 1,556 paid

1) $109,296
2) $79,316
3) $57,559
4) $41,771
5) $30,313
6) $21,998
7) $15,964
8) $11,585

	UTG 10.0	EP 22.0	MP 38.0	HJ 67.0	CO 26.0	BU 55.0	SB 16.0	BB 60.0
UTG 10.0		1.45 +9.3%	1.55 +10.8%	1.60 +11.5%	1.49 +9.5%	1.59 +11.3%	1.37 +7.8%	1.59 +11.4%
EP 22.0	1.22 +4.9%		2.00 +16.7%	2.11 +17.9%	1.91 +15.7%	2.08 +17.5%	1.44 +9.1%	2.09 +17.7%
MP 38.0	1.13 +3.1%	1.36 +7.6%		2.35 +20.1%	1.47 +9.6%	2.29 +19.6%	1.23 +5.1%	2.32 +19.8%
HJ 67.0	1.07 +1.7%	1.17 +3.9%	1.37 +7.7%		1.21 +4.8%	1.77 +13.9%	1.12 +2.8%	1.99 +16.5%
CO 26.0	1.19 +4.4%	1.64 +12.2%	2.07 +14.7%	2.20 +18.7%		2.15 +18.3%	1.36 +7.7%	2.17 +18.5%
BU 55.0	1.09 +2.1%	1.22 +4.9%	1.51 +10.1%	2.47 +21.1%	1.27 +6.0%		1.15 +3.4%	2.43 +20.8%
SB 16.0	1.26 +5.8%	1.73 +13.3%	1.85 +14.9%	1.93 +15.9%	1.77 +13.9%	1.91 +15.6%		1.92 +15.7%
BB 60.0	1.08 +1.9%	1.20 +4.4%	1.44 +8.9%	2.49 +21.3%	1.24 +5.4%	2.03 +17.0%	1.13 +3.1%	

	UTG 10.0	EP 22.0	MP 38.0	HJ 67.0	CO 26.0	BU 55.0	SB 16.0	BB 60.0
UTG 10.0		1.28 +6.2%	1.34 +7.3%	1.39 +8.1%	1.30 +6.6%	1.37 +7.9%	1.24 +5.4%	1.38 +8.0%
EP 22.0	1.16 +3.8%		1.66 +12.4%	1.76 +13.8%	1.59 +11.4%	1.73 +13.4%	1.31 +6.8%	1.75 +13.6%
MP 38.0	1.12 +2.8%	1.33 +7.0%		2.08 +17.6%	1.42 +8.7%	2.03 +16.9%	1.21 +4.7%	2.05 +17.2%
HJ 67.0	1.08 +1.9%	1.19 +4.4%	1.42 +8.7%		1.24 +5.4%	1.84 +14.8%	1.13 +3.1%	2.04 +17.1%
CO 26.0	1.15 +3.5%	1.47 +9.4%	1.74 +13.4%	1.86 +15.0%		1.82 +14.5%	1.28 +6.1%	1.83 +14.7%
BU 55.0	1.09 +2.2%	1.23 5.2%	1.53 +10.5%	2.33 +19.9%	1.29 +6.4%		1.16 +3.6%	2.28 +19.5%
SB 16.0	1.19 +4.3%	1.44 +9.0%	1.52 +10.4%	1.60 +11.6%	1.47 +9.5%	1.58 +11.2%		1.59 +11.4%
BB 60.0	1.09 +2.1%	1.22 +4.9%	1.48 +9.7%	2.39 +20.5%	1.27 +5.9%	2.03 +17.0%	1.15 +3.4%	

Diagram 42: Direct bubble (small field MTT) / Already in the money (big field MTT)

As you can see, both the bubble factors (the top number) and the risk pre-

miums (the bottom number, written as a percentage) are higher on the bubble than when you are already in the money. Now you may expect there to be a bigger difference, but remember that the payout structures are different. In the small field MTT, once the bubble bursts you are very close to the top prize. In the big field MTT, the bubble burst hundreds if not thousands of players ago.

The next few examples will focus on 8 players left, with 7 places paid, so all of them are on the direct bubble. We'll use the payout structure from The Big $109 above.

Hand 1: Shortstack Strategy Under-the-gun

UTG	EP	MP	HJ	CO	BTN	SB	BB
10bb	22bb	38bb	67bb	26bb	55bb	16bb	60bb

Diagram 43

We reach the final table as the shortstack and the action is on us UTG the very first hand. We look down at 77. What should we do?

Fold Raise to 2bb Jam

A: We should fold. This is a really lousy situation since we're about to go through the blinds. Our risk premium against every player is at least 7.8%, but their risk premium against us is much lower *(Diagram 44)*.

For example, our risk premium against the HJ is 11.5% and yet their risk premium against us is just 1.7%. This means they have less risk against us than we do against them. We're also in the worst possible position having to raise or shove through the whole table.

You may be surprised to see that we can still min raise in this situation. Before the advancement of preflop solvers, the general convention was that 10bb was a jam or fold stack. In later positions where you'll see the solver suggest a lot more jamming than min raising, but the earlier position you're in, the higher the likelihood that someone can wake up with a hand. And so this means we want to just min raise a *polarised range* instead to almost give ourselves a get out of jail free card in case the action gets heavy behind. We can still jam the hands in the middle, what we might call a *condensed range (Diagram 45)*.

	UTG 10.0	EP 22.0	MP 38.0	HJ 67.0	CO 26.0	BU 55.0	SB 16.0	BB 60.0
UTG 10.0		1.45 +9.3%	1.55 +10.8%	1.60 +11.5%	1.49 +9.8%	1.59 +11.3%	1.37 +7.8%	1.59 +11.4%
EP 22.0	1.22 +4.9%		2.00 +16.7%	2.11 +17.9%	1.91 +15.7%	2.08 +17.5%	1.44 +9.1%	2.09 +17.7%
MP 38.0	1.13 +3.1%	1.36 +7.6%		2.35 +20.1%	1.47 +9.6%	2.29 +19.6%	1.23 +5.1%	2.32 +19.8%
HJ 67.0	1.07 +1.7%	1.17 +3.9%	1.37 +7.7%		1.21 +4.8%	1.77 +13.9%	1.12 +2.8%	1.99 +16.5%
CO 26.0	1.19 +4.4%	1.64 +12.2%	2.07 +17.4%	2.20 +18.7%		2.15 +18.3%	1.36 +7.7%	2.17 +18.5%
BU 55.0	1.09 +2.1%	1.22 +4.9%	1.51 +10.1%	2.47 +21.1%	1.27 +6.0%		1.15 +3.4%	2.43 +20.8%
SB 16.0	1.26 +5.8%	1.73 +13.3%	1.85 +14.9%	1.93 +15.9%	1.77 +13.9%	1.91 +15.6%		1.92 +15.7%
BB 60.0	1.08 +1.9%	1.20 +4.4%	1.44 +8.9%	2.49 +21.3%	1.24 +5.4%	2.03 +17.0%	1.13 +3.1%	

Diagram 44: Bubble Factors and Risk Premiums

Diagram 45: UTG strategy

Fold 89.4% / Raise to 2bb 4.9% / Jam 5.6%

The Idea of Polarised Versus Condensed Ranges

When you're playing a shortstack you'll get to employ a mixed strategy. This means that you'll want to be able to both min-raise and jam. Your min raising range will be polarised because you'll continue vs action with the top of your range and fold easily with the bottom. The hands in the middle that you want to jam will form a condensed range. It should always be clear, when looking at a polarised range, which hands you're likely to continue versus aggression and

which you would fold *(Diagram 46)*.

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

Diagram 46: Polarised min raise range (left) and condensed jamming range (right)

This idea of polarised and condensed ranges is important in many aspects on a final table. Imagine you 3-bet a big stack: you'll want to 3-bet some hands you can call if they 4-bet jam and 3-bet others that have an easy fold. There will be times when you'll want to 3-bet playable hands as well and I'll discuss all of this as the situations present themselves as we go along.

Hand 2: Opening Into the Big Stacks from MP

UTG	EP	MP	HJ	CO	BTN	SB	BB
10bb	22bb	38bb	67bb	26bb	55bb	16bb	60bb

Diagram 47

UTG folds as does EP and the action is now on us in MP. What percentage of hands can we open in this situation?

13.9% 17.4% 24.2%

31.1% 56.5%

A: While we have 38bb in MP, we are covered by three players behind (the HJ, the BTN and the BB) so we don't get to open very wide here at all. Our risk premium against all three players is at least 19.6% (see table above) and so we only get to open ~13.9% of hands. We have an unfortunate seat draw with three bigger stacks behind us, but there's not much we can do, apart from sticking to a tight opening range. If we open too wide, we'll be forced to fold too many hands when one of the bigger stacks 3-bets, or continue with too many weak hands vs the 3-bet and play out of position (OOP) against at least two of those bigger stacks.

We look down at A♦-Q♦, what should we do?

Fold **Raise to 2bb** **Jam**

AQs is definitely a hand we want to open here. Notice how we have to fold hands as strong as KJo and even a hand like ATo is mixing between raise and fold *(Diagram 48)*.

AA	AKs	AQs	AJs	ATs	A9s	A8s	A7s	A6s	A5s	A4s	A3s	A2s
AKo	KK	KQs	KJs	KTs	K9s	K8s	K7s	K6s	K5s	K4s	K3s	K2s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s	Q3s	Q2s
AJo	KJo	QJo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s	J3s	J2s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s	T3s	T2s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s	93s	92s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s	83s	82s
A7o	K7o	Q7o	J7o	T7o	97o	87o	77	76s	75s	74s	73s	72s
A6o	K6o	Q6o	J6o	T6o	96o	86o	76o	66	65s	64s	63s	62s
A5o	K5o	Q5o	J5o	T5o	95o	85o	75o	65o	55	54s	53s	52s
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	64o	54o	44	43s	42s
A3o	K3o	Q3o	J3o	T3o	93o	83o	73o	63o	53o	43o	33	32s
A2o	K2o	Q2o	J2o	T2o	92o	82o	72o	62o	52o	42o	32o	22

Diagram 48: MP opening range

● *Fold 86.1%* / ● *Raise to 2bb 13.9%*

We open to 2bb and the HJ 3-bets to 5.5bb. It folds back around to us, what should we do?

Fold **Call** **4-bet jam**

A: This is already a pretty uncomfortable spot. It's the direct bubble and no option feels great. Our risk premium against the HJ is 20.1%, which is huge, so we're going to have to fold a lot here. This is also why we had to open such a tight range in the first place. If they're a good player, the HJ's 3-betting range should be polarised to hands he can easily call a 4-bet jam (like JJ+, AK) and then hands that block our value 4-bet jamming range (like K8s, A2s or A4o). Our 4-bet jamming range for value here should be KK+, AK (so the HJ wants to use Ax and Kx hands to block those). We'll also want to jam some suited Ax hands and then hands like QQ and JJ become indifferent between calling and jamming. Hands like TT, 99 and 88 don't really like any option - they could jam, call or fold *(Diagram 49)*.

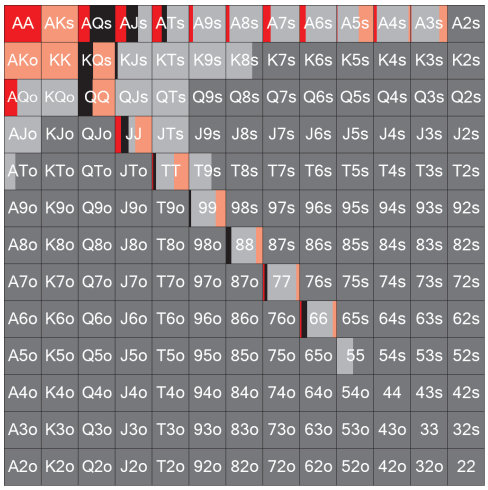

Diagram 49: MP strategy facing HJ 3-bet

● Fold 8.6% / ● Call 1.0% / ● 4-bet to 11.83bb 1.3% / ● Jam 3.0%

from an opening range of 13.9%

Given how weighted towards weaker Ax and Kx hands the HJ should be, hands like AQs, AJs and KQs (and QQ, JJ and ATs sometimes) will perform better as calls. We never want to force our opponent to play well. Jamming AQs here is profitable, but it's not as profitable as calling. If we jam, the HJ just folds their weaker Ax and Kx hands and calls QQ+, AK. Increasing our stack by 10bb preflop is not a big enough upside to the potential downside of busting in this hand and bubbling the tournament.

We call the 3-bet and the flop comes: A♣-5♣-2♦. We check and the HJ bets 2.7bb into a 13.5bb pot. We have 32.5bb behind. What should we do?

Fold Call Raise to 8.44bb Jam

A: We should expect the HJ to continuation bet (c-bet) almost all of the time here, even though they should be aware that our range is very narrow and can have some very strong top pair hands on this board. With such a small bet the HJ can get you to fold QQ and JJ (and our other underpairs) straightaway. We definitely have to continue here with AQs, so the decision is between calling or jamming because we don't want to make a small raise on this board and let the HJ continue with draws. It's a weird spot because jamming doesn't get called by worse since the HJ folds the weaker Ax hands, underpairs and flush draws, but it does deny equity and prevent them from potentially bluffing us on future streets.

We call the c-bet and the turn is the 8♦. We check and the HJ checks back. The river is the T♣. What should we do?

Check Bet 20%-pot Bet 50%-pot Bet pot Jam

A: We should block bet the river, about 3.8bb into a pot of 18.9bb (20% pot). Top pair hands account for the majority of their check back range, which means we want to bet for value to get called by those weaker Ax hands. But the HJ can still have some very strong hands like a flush, top set (AA) and two pair (AT).

We block bet 3.78bb and the HJ jams. What should we do?

A: Oof. This is a really tough spot. In theory the HJ could bluff with hands like KK with a club or KQo with a club because it's very tough for us to have a really strong hand here. We could have K♣-Q♣ for a flush, top set and top two pair sometimes too. But apart from that, we're struggling to find strong hands. On the other hand, the HJ can have some very strong hands like a flush and top set (AA). This is a very marginal spot and I would fold very frequently unless I thought the HJ was getting really out of line on the bubble.