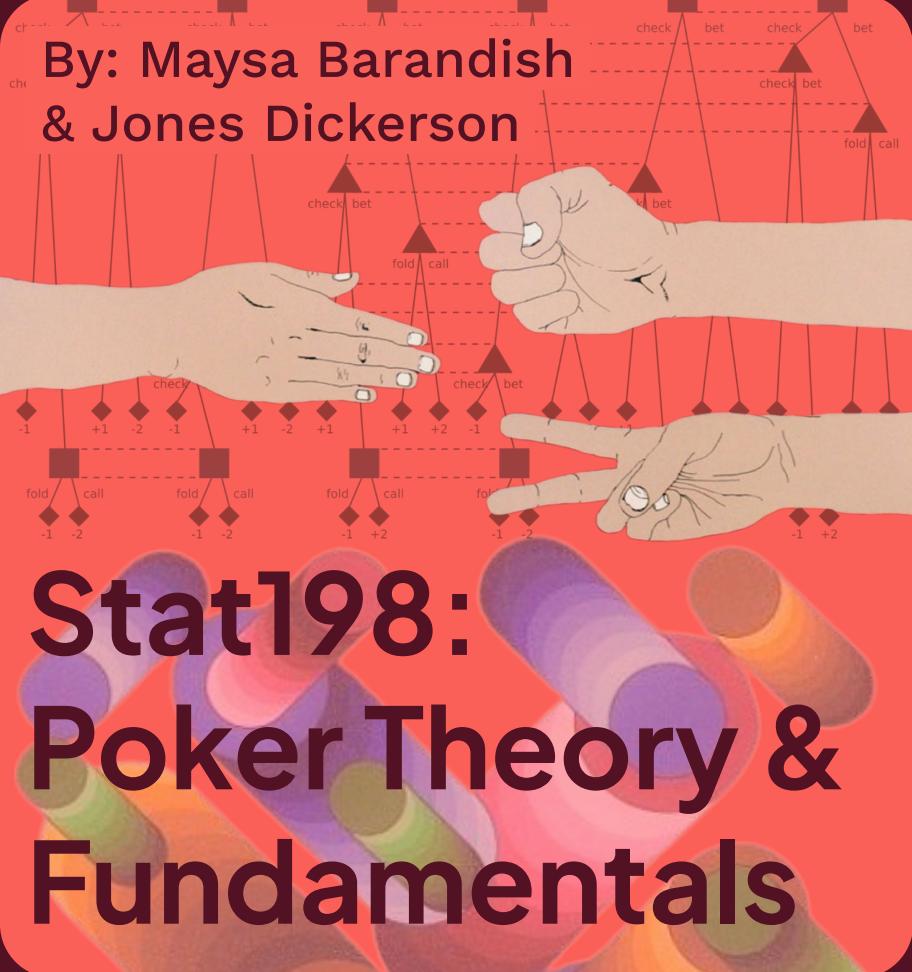


By: Maysa Barandish
& Jones Dickerson



Stat198: Poker Theory & Fundamentals

	Aks	AQs	Ajs	ATs	A9s	A8s	A7s	A6s	A5s	A4s
AKo	KK	KQs	Kjs	KTs	K9s	K8s	K7s	K6s	K5s	K4s
AQo	KQo	QQ	QJs	QTs	Q9s	Q8s	Q7s	Q6s	Q5s	Q4s
AJo	Kjo	Qlo	JJ	JTs	J9s	J8s	J7s	J6s	J5s	J4s
ATo	KTo	QTo	JTo	TT	T9s	T8s	T7s	T6s	T5s	T4s
A9o	K9o	Q9o	J9o	T9o	99	98s	97s	96s	95s	94s
A8o	K8o	Q8o	J8o	T8o	98o	88	87s	86s	85s	84s
A7o	K7o	Q7o	J7o	T7o	87o	87o	77	76s	75s	74s
A6o	K6o	Q6o	J6o	T6o	86o	88o	76s	66	65s	64s
A5o	K5o	Q5o	J5o	T5o	85o	78o	65s	55	54s	
A4o	K4o	Q4o	J4o	T4o	94o	84o	74o	84o	54p	44
A3o	K3o	Q3o	J3o	T3o	93o	53p	73o	83o	53p	43o
A2o	K2o	Q2o	J2o	I2o	92o	82o	72o	82o	52o	42o



Lecture 2: Opening Ranges



Announcements

Attendance/ Game logs officially begin next week. (10/01)

Everyone's PokerNow account will need to be verified, and we'll be issuing roles on discord for the fall '25 students on our first HW assignment.



Review.



POKER AT BERKELEY

Review: Position in Poker

The person who acts last has a major advantage.

By going last, they have:

- An information advantage: Imagine Rock Paper Scissors where one person goes first.
- Greater flexibility: to choose whether to fold and give up, check/call and end the betting round, or bet/raise and apply pressure.
- The advantage of position is extremely fundamental in determining strategy.

This effect is known as having position and incentivizes us to play more hands preflop.



Review: Position Names

- ★ UTG – Under The Gun: Three seats before the Button, first to act pre-flop in a 6-max game.
- ★ HJ – Hijack: Two seats before the Button.
- ★ CO – Cutoff: One seat before the Button.
- ★ BU – Button: Always acts last post-flop.
- ★ SB – Small Blind: The seat after BU, acts first post-flop. Posts a mandatory 0.5BB bet preflop.
- ★ BB – Big Blind: The seat after SB, acts last pre-flop. Posts a mandatory 1BB bet preflop.



In order to discuss poker strategy, we need to remember what our main goal in poker is:

- To win the most chips possible in the long run

Recall from our first lecture that there are exactly two scenarios in which we can win a pot:

- All of our opponents fold
- We have the best hand at showdown

Therefore, we should play hands that allow us to achieve these two scenarios often, and with large pots.

- 3 options: fold, call, raise
- 4 streets: preflop, flop, turn, river
- Power of position
- GTO is independent of outcome.



Review: GTO vs. Exploitative

GTO is (like all Nash Equilibria) completely unexploitable. No matter what our opponent does in response, we have no weaknesses.

This strategy does not win the most by exploiting our opponents, it only never loses by having no weaknesses.

If we have knowledge that villain has leaks (flaws) in their game, we can deviate from GTO, exploit their weaknesses, and become more profitable

However this comes with a risk—Because we have deviated from GTO, we now become exploitable ourselves! We will talk about this risk more in depth in a future lecture...



Review: GTO vs. Exploitative Quiz

- 1) We are playing against an unknown opponent.
- 2) We have knowledge of a villain's leaks.
- 3) We think villain is playing worse than normal.
- 4) We are playing against an opponent who has an edge on us.



Review: GTO vs. Exploitative Quiz

1) We are playing against an unknown opponent. - **GTO**

2) We have knowledge of a villain's leaks. - **EXPLOIT**

3) We think villain is playing worse than normal. - **EXPLOIT**

4) We are playing against an opponent who has an edge on us. - **GTO**

Expected Value

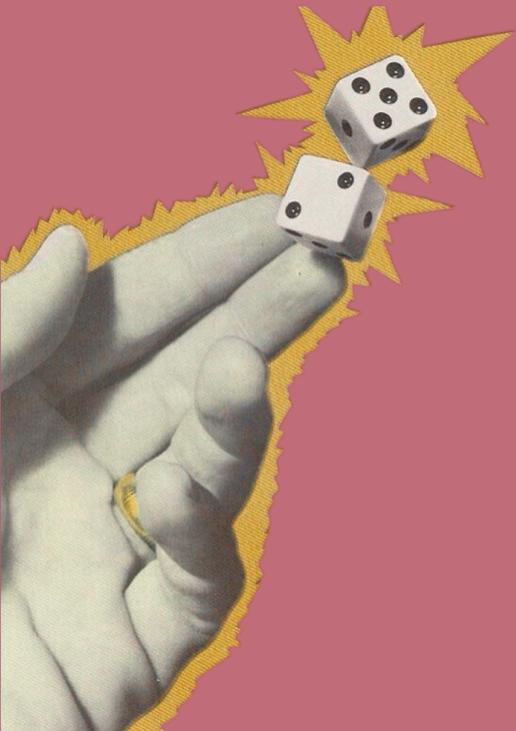
Expected Value is the real currency of poker decision making.

EV is defined as the amount of money we gain or lose on average in the long term due to our poker actions. We try to maximize it with every choice we make in a hand.

How it is calculated:

- ★ $EV = [\%W \times \$W] + [\%L \times \$R]$ where $\$R$ = how much \$ u must risk, $\$W$ = how much \$ u stand to gain
- ★ *The sum of the probabilities of each possible outcome multiplied by its payoff*

Ranges.



POKER AT BERKELEY

Ranges

A range is a chart that consists of every pair of hole cards you can have.

There are 1326 starting hands, made up of suited combinations, offsuit combinations, and pocket pairs.

While each square represents a single possible “hand,” there are a different number of combinations for each.

Interpreting Solver Outputs

Unlike a human player, solvers will often use a “**mixed strategy**,” which means it will tell you to check a certain hand x% of the time while betting it x% of the time.

With a mixed strategy used for many poker hands, actually mimicking the results of a poker solver in a real game would be nearly impossible.

However, if you are going to try and play a strategy that resembles GTO, you will need to learn about randomization and mixing it up with certain hands in your range to actually remain balanced. For now, we will focus on a much more simplified strategy and will discuss mixed strategy and range balancing later on in this course.



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	43o	32o	22



Preflop, there are **169 possible hand combos**, but taking into account 4 suits, there are a total **1326 unique possible hand combos** you can be dealt.

Understanding hand combos allows us to combine range construction and mathematics in our strategy. We will revisit counting combos (combinatorics) in detail in a later lecture.

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	43o	32o	22

Of the 169 possible pre-flop hands
(2 Cards, 13 Ranks):

- 13 possible pocket pairs (5.88% of all hands)
- 78 suited hands (23.53% of all hands)
- 78 offsuit hands (70.59% of all hands)



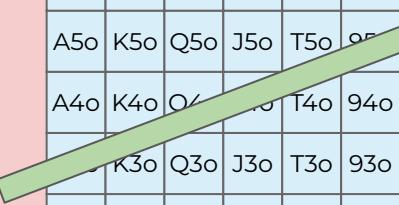
Unpaired Hands

- Unpaired hands are all hands above and below the diagonal line (pocket pairs).
- Unpaired hands consist of suited and offsuit hands:
 - Suited Hands: section above PPs. Denoted as 's'
 - Offsuit Hands: below the PP line. Denoted as 'o'

Ex) A ♣ K ♦ is AKo
8 ♠ 7 ♠ is 87s

The diagonal line in
the hand grid
represents pocket
pairs

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	43o	32o	22



Quick Jargon List

Offsuit hands are hands with two different suits: for example, 7♥2♦ .

Suited hands have both cards of the same suit. for example, 7♥2♥ .

Pocket Pairs are hands where each hole card is the same rank: 7♥7♦ .

Connectors are hands where the hole cards are one apart, ex: 8♥7♦ , T♥9♥ .

Gappers are hands where the hole cards are two apart, ex: 9♥7♦ , J♥9♥ .

A **set** is a 3 of-a-kind hand using a pocket pair, for example on a flop of

T♠7♥2♦ with our hand being 2♣2♥ .

To **connect with a flop** means to make a good hand or draw on the flop, for example if we have AK and the flop comes A72, we have connected.

Qualities of Strong Starting Hands

What makes two hole cards strong?

Everybody knows AA is the best hand, but why?

What is a better hand, J ♥ 6 ♥ or T ♥ 9 ♥ ?

There are many factors that determine the strength of a hand, with some hands being considered strong for entirely different reasons than others.

The primary factors to consider are (in order of importance):

- Good Pair Potential
- Versatility
- Nut potential

(we'll go over what these 3 mean in a second.)



Implied Odds and Reverse Implied Odds

Before we discuss starting hand strength, there are two important concepts to introduce: Implied Odds and Reverse Implied Odds:

- Implied Odds refers to the situation where we stand to win more money if we make a strong hand.
- Reverse Implied Odds are, well, the reverse of Implied Odds. It refers to the situation where we stand to lose more money when we make a hand.

We have Implied Odds when we expect our opponents to call large bets when we make a strong pair/straight/flush/etc.

We have Reverse Implied Odds when it is often the case that when we make a strong one, our opponent makes a stronger hand and can make us call large bets.

Later examples in the next lecture should make this more clear.



Good Pair Potential

Good Pair Potential measures how likely hands are to make strong pairs post-flop with strong kickers.

AA is the best starting hand in poker because it has the highest Good Pair Potential: It is guaranteed to have at least a pair of Aces, the best pair possible.

Specifically, AA is guaranteed to have an overpair: a pair higher than any on the board. For example, if the board is 57J, QQ is an overpair.

K ♣ Q ♥ is better than 5 ♠ 4 ♣ because it will flop higher pairs more often.

22 has very weak GPP because we almost always have only a pair of 2's.

A ♦ 2 ♦ has moderate GPP: if we pair our A, it will be a strong pair, but with a weak kicker.

If we pair our 2, it will be a weak pair.



Kickers

Also known as a side card, is a card in a 5-card poker hand that does not determine the rank of a hand but is used to break ties.

Kickers seem minor at first, a way to break ties, but they are extremely important.

Pair vs. pair situations occur very often and will be decided by kickers. Having a good kicker isn't just important for winning. When we have bad kickers, we can lose a lot of additional money from calling when we're beaten.

We will learn about reverse implied odds (and implied odds) in a later lecture and how bad kickers carry the worst implied reverse odds.

Kickers

As you can see, kicker strength falls off dramatically. An A is much better than a K which is much better than a Q, and all other kickers aren't great.

For example, TPTK (Top pair Top kicker) is a hand with top pair and an A kicker and is very strong. Top pair with a weak kicker is comparatively much, much weaker.

Generally, the breakdown of kicker strength is:

A – best kicker, very strong

K – pretty good kicker

Q – decently good kicker

TJ – weaker kickers

2 3 4 5 6 7 8 9 – weak to awful kickers

Versatility

Versatile Hands can connect with flops in several different ways.

Being able to make straight draws, flush draws, and pairs increases our likelihood of making a good hand.

T ♥ 9 ♥ has more versatility than J ♥ 6 ♥. Both can flop a flush draw and both can hit okay pairs, but T ♥ 9 ♥ can also flop straight draws.

Therefore T ♥ 9 ♥ is the better hand, because while J ♥ 6 ♥ has slightly higher GPP it has significantly lower Versatility.

8 ♦ 7 ♦ is a more versatile hand than K ♠ 8 ♣.

The second hand has higher cards and so a higher GPP, but 8 ♦ 7 ♦ will flop more straight draws and flush draws.

Draws

Common Types of Draws + Chance We Make Them

Flush Draw: 36% (on Flop)



Gutshot Straight Draw: 16%



Open Ended Straight Draw: 32%



Draws are when we are 1–2 (usually 1) card away from making a strong hand.

For example, we could have 4 hearts cards and only need one more for the flush.

We like to flop good draws because it becomes decently likely that we make a good hand, and we have a lot of implied odds.

We will go over draws in much more depth soon.

Nut Potential

Nut Potential measures how likely we are to flop (or eventually hit) an extremely strong hand, known as the Nuts. It's important to keep in mind that we don't flop extremely strong hands very often with any hand. We miss well over half of flops with any hand. When we are considering Nut Potential, there are three important hand types: Connected Hands, Suited Hands, and Pocket Pairs.

Having the potential to make extremely strong hands increases the implied odds of playing the hand.

Remember, we make more money when Villain is willing to call huge bets when they have good hands that are still worse than ours.



Pocket Pairs and Set Mining

A Pocket Pair is a starting hand where both cards are the same rank, say 22, 77, AA.

We play AA entirely because it already is a strong pair, we're already guaranteed an 'overpair.'

When we play a hand like 22, it is entirely with the goal of hitting a 2 on the flop.

This will give us three of a kind, extremely powerful and almost always the best hand on the flop. This type of hand is known as a set.

Even better, our hand is extremely well concealed: Villain will never suspect that we have three 2s.

When we play a pocket pair, we will flop a set ~12% of the time, or roughly once every 9 times.

Open Raising

From any position, when action folds to us, we always want to either fold or raise, never (in most circumstances) limp in, which means calling the big blind.

This is called an open raise, and is usually the first action besides folding in poker hands.

If we say “Cutoff opens,” that implies that the UTG and Hijack player have folded, and Cutoff decides to raise. “SB opens” means UTG, HJ, CO, and BTN have folded.

Why can't the Big Blind open raise?

Open Raising

The blinds create dead money in the pot that we can win, so we can force them to fold many hands by raising under the pressure that we have a better one.

Most of the money made postflop is by raising strong hands preflop

Great hole cards like AA and KK are very likely to stay strong over the course of a hand, and making the pot bigger with hands like these preflop grows a larger pot post

Why shouldn't we call preflop?

- By calling, a.k.a limping, we're giving information to our opponents that our hand is weak. By not raising, we indicate that our hand isn't strong enough to raise.
- Now, other players ahead of us can raise often, representing a stronger hand than we've called with, and we often have to fold.
- Additionally, because most of the money is made holding strong hands, every time we decide to play a weaker hand, we're reducing our winrate and expected value.



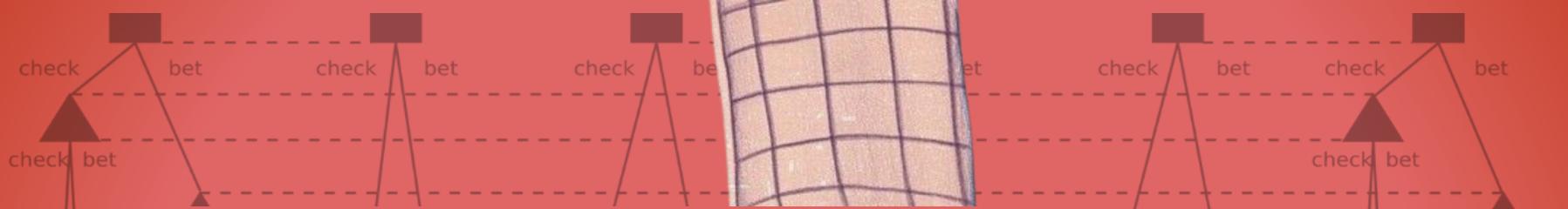
Why shouldn't we call preflop?

- To Thin the field: our hands will be strong enough that our primary aim is to win post-flop with strong pairs and overpairs (think AA, AK, KK, etc.) These fair worse with more players: AA might be 80% to win against one other player but only 18% to win against 4 other players.
- Trapping: A common strategy where a player limps (calls) with a very strong hand like aces or kings. While this seems like it may print money, because people don't expect us to have a strong hand with a weaker action, it often loses EV over the long run because we would win more by raising these hands.

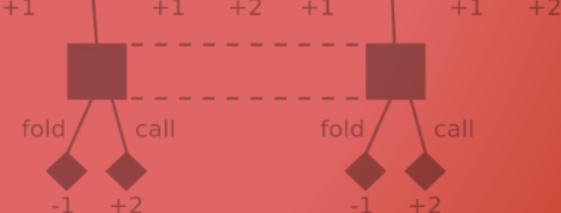
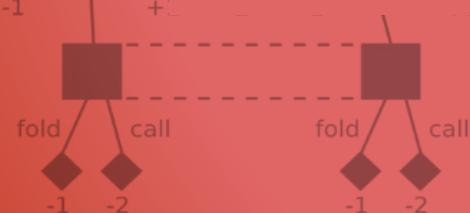


Now that we understand what makes a strong hand and the importance of position, we can combine the two to determine which hands we should play.





Introduction to Opening Ranges.



Approaching Opens Using Probability

We have already outlined a few factors that affect hand playability: hand strength, hand suitedness, connectivity, good pair potential, nut potential, table dynamics, etc.

But the most important reason? **Position.**

Why does position affect the percentage of hands we open with?

When OOP, we are first to act with a limited amount of information. Playing weaker hands OOP, you often may face a bet forcing you to fold and denying your equity of the pot.



Introduction to Opening Ranges

Any action a player takes = Information about their range

RFI (raise first in) charts: outline the % of hands you should be raising with in certain positions if no player has raised before you and you are the first better/aggressor, aka PFR (preflop raiser)

For our purposes (6-max NLH), we should aim for an average PFR of around 19% of the time.



Introduction to Opening Ranges

- By taking in information, we can select actions that we would take given any starting hand.
- For example, we are sitting Under the Gun (UTG), and are first to act preflop. Which hands should we fold, and which should we open raise?
- What about if we're in the Cutoff where both UTG and Hijack folds, which hands should we raise now?
- How about if we're in the big blind, and the Hijack open raised. Which hands should we fold, call, and reraise with?
- All of these situations can be answered with a hand range. In the following slides, we'll look at which hands open from each position. Our goals when raising are still primarily for value and to thin the field.



UTG Open (17.8%)

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

Raise

17.8 %

Fold

82.2 %

235.58
 combos

1090.42
 combos

UTG only opens 17.8% of hands.

UTG plays the strongest range. This is because with 5 players ahead of us we have no information about, there's a strong chance one of them has a good hand. By choosing to open UTG, we must have a strong range.



POKER AT BERKELEY

HJ Open (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

Raise

22 %

Fold

78 %

292.06
 combos

1033.94
 combos

The HJ opens 22% of hands. In the CO and HJ positions, our range is still quite strong.

However, notice that we're opening wider as we approach later position. With (slightly) less people to act ahead of us, what qualifies a "strong" hand for our position.

0 0 0 0
0 1 0 0
1 0 1 0
0 0 1 1



POKER AT BERKELEY

CO Open (28.8%)

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

Raise

28.8 %

Fold

71.2 %

382.4
 combos

943.6
 combos

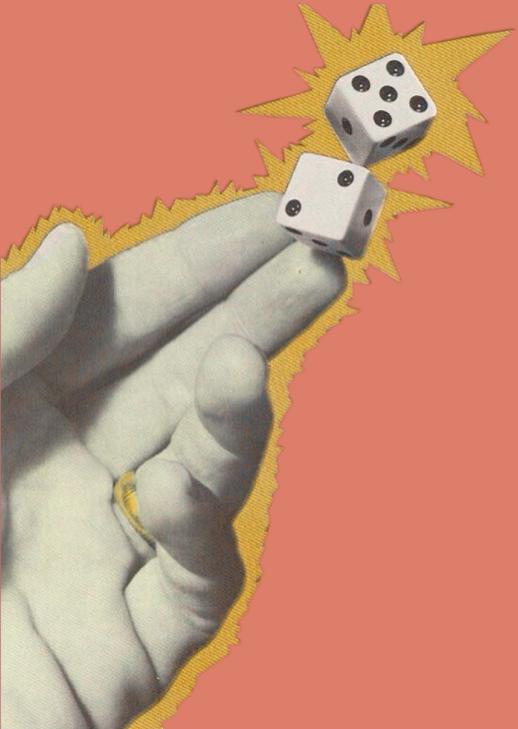
The CO opens 28.8% of hands.
In the CO and HJ positions, our range is still quite strong.

However, notice that we're opening wider as we approach later position. With (slightly) less people to act ahead of us, what qualifies a "strong" hand for our position.

0 0 0 0
0 1 0 0
1 0 1 1
0 0 0 1



POKER AT BERKELEY



The
Button
should be
your
favorite
position.



POKER AT BERKELEY

The Button

This is the position from which Hero should be generating the most EV.

An enormous mistake a lot of newer players make is not stealing wide enough from this seat. It is crucial to steal aggressively from the BU.

Hero is always in position postflop, which immediately increases EV.

On the BU, ranges are wider and so it takes less strength to flop a strong hand relative to Villain's range.

BTN Open (43.3%)

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

Raise

43.3 %

Fold

56.7 %

574.3
 combos

751.7
 combos

The BTN opens 43.3% of hands.

Our widest open is from the button, because beyond having only two players to act ahead of us, we have one more powerful tool: position. On the button, we will always be last to act postflop, which means the other players (out of position) will be forced to give information.



POKER AT BERKELEY

The Button

Hands like KJs, which flopped dangerous marginal pairs when opened from UTG are now flopping hands capable of getting a lot of value post-flop. The part of our range that can be considered 'value' widens. Cannot be said enough not to just memorize

this chart as this is extremely dynamic and will change drastically if there are nits or loose players in SB/BB. We will cover soon how to adjust our ranges.



**“If we decide to
open raise, how
much should we
raise to?”**



Sizing

Remember our goal is to make our opponent's life hard: we pick a sizing that:

1. will often get them to fold but
2. can also reasonably be called

Sizing is determined by information. In earlier position, we have less information about other player's hands. This means other player's are likely to have strong hands that can reraise, so to risk as few chips as possible, our sizing from an early position (UTG, HJ) is actually the minimum!



Opening size: 2.5× BB

A standard opening raise should be 2.5× the BB. So at a \$1/\$2 this would be $2.5 \times \$2 = \5 . The later position we are, the less likely we are to run into strong hands, so we can start sizing up, giving the best odds to steal the blinds (force sb and bb to fold)

Separately, though UTG's range is the strongest, it has to size down from often having to play hands out of position against a caller or re-raiser from the cutoff or button. So if we are opening from UTG we typically open to 2×.

Small Blind Open

Since the SB acts after the BTN, our range should be wider than the BTN's, right?

Wrong.

The Big Blind already has 1BB in the middle and so can call or 3-bet very lightly and cause us pain.

Postflop we are at a huge positional disadvantage. The Big Blind acts after us so they will call more often. Therefore, even though we are still stealing aggressively, we actually open less hands than we do from BTN.



SB Open(42.8%)

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

Raise

42.8 %

567.21
 combos

Fold

57.2 %

758.79
 combos

The SB opens 42.8% of hands.
Because only one player is left to act ahead of us, the sb open is still quite wide.

However, because we're always forced to act first postflop, we've forced ourselves out of position, which means we should tighten our range preflop.



POKER AT BERKELEY

Small Blind Opening size: 3.5x

While we mentioned you should use a standard open raise size of 2.5x, **An exception to this rule is when you're in the small blind, where a larger size (between 3BB and 4BB) should be used.**

This is because the player in the big blind has position and money already committed to the pot, both of which incentivize him to defend very loosely. You can't do anything about your positional disadvantage, but you can make his pot odds worse with larger open-raise sizes.



Big Blind Defense.

Big Blind Defense

Big blind doesn't have a RFI range because it's last to act preflop.

Occasionally all the players fold behind you and you "get a walk." (free small blind)

But most of the time, someone (most often the BTN) will have opened already, and you have to decide, having already been forced to invest 1BB, to give it up, call for a slightly cheaper price, or reraise. When we are in the BB and someone opens and it folds around to us, when we call we are **Closing Action**. This means we can call without expecting someone to raise us and we can see a flop.

Because every other position's opening range looks so different, we adjust our range based on which position the open came from.



Calling Out of Position in the BB

The main difference between being in the BB and in position is that set mining drops in value in the BB.

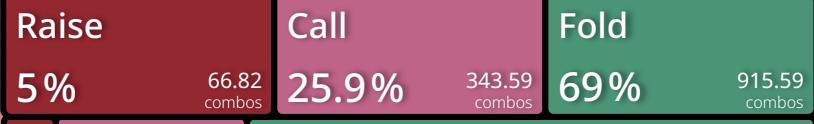
Just fold the small pairs to this sizing as the ability to extract value post-flop suffers greatly when we are out of position.

As we face a later position opening range, weaker hands become playable, but note that the Gap Concept is very much in effect here. We are playing a much tighter range vs. each position than we'd open.

This is a healthy approach and ensures that calling hands have enough implied odds (e.g. 66), often flops strong hands (e.g. KQo) or both (e.g. JT_s) to outweigh the positional disadvantage.

Big Blind Defends (25.9%) vs. UTG Open (17.8%)

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

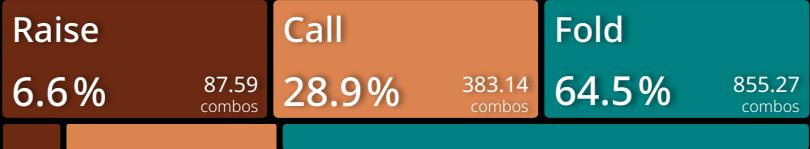


Our Big blind defending range includes a calling range facing an open because:

1. We have already 1bb invested in the pot and are getting pot odds to call.
2. If we decide to call, we close action preflop and move to the flop. This means we are effectively In Position preflop.

Big Blind Defends (28.9%) vs. HJ Open (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



Our Big blind defending range includes a calling range facing an open because:

1. We have already 1bb invested in the pot and are getting pot odds to call.
2. If we decide to call, we close action preflop and move to the flop. This means we are effectively In Position preflop.

Big Blind Defends (33.5%) vs. CO Open (28.8%)

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



Our Big blind defending range includes a calling range facing an open because:

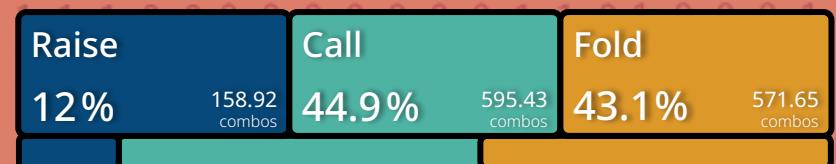
1. We have already 1bb invested in the pot and are getting pot odds to call.
2. If we decide to call, we close action preflop and move to the flop. This means we are effectively In Position preflop.

Big Blind Defends vs. Late Position Open

Because EP's (early position's) raising ranges are so tight, the most common encounters preflop are BTN vs BB and SB vs BB. These result in quite wide ranges postflop and can create some of the most complex dynamics postflop, which we'll spend a lot of time looking at.

Big Blind Defends (44.9%) vs. BTN Open (43.3%)

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



Our Big blind defending range includes a calling range facing an open because:

1. We have already 1bb invested in the pot and are getting pot odds to call.
2. If we decide to call, we close action preflop and move to the flop. This means we are effectively In Position preflop.

Big Blind Defends (44.5%) vs. SB 3.5x Open (42.8%)

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



We mentioned earlier that opening too wide of a range in the SB is a mistake because BB can call/3-bet lightly and make our life difficult OOP. Being in position makes it easier for the BB to both extract value with good hands postflop and have extra possibilities of winning the hand unimproved.

Big Blind Defense Strategy

It's important that while we already have 1BB in the pot when facing an open raise from the BB and have the added benefit of closing action pre-flop, we are at a severe positional disadvantage post-flop. At best, If the Small Blind is the opener, we only have position on one player.

If people do open bigger, we need to tighten up our defence frequencies even more than the defense ranges suggest, because our immediate odds and our implied odds are not as good.

When the BU opener reduces sizing, we have a better price to call and a worse risk/reward to 3-bet bluff. The common urge to 3-bet more vs min opens is a strategic blunder.

Let's take a look at
some spots where
we have hands we
should and shouldn't
open with:



Example: RFI (Raising First In)

Folds around to Hero (BTN) who is dealt K4s. **Do we RFI?**



BTN Open (43.3%)

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

Example: RFI (Raising First In)

Folds around to Hero (BTN) who is dealt K4s. **Do we RFI?**

Yes. With no player before us having opened, we open raise K4s on the BTN with 100% frequency.

A8s	A7s	A6s	A5s	A4s	A3s	A2s
K8s	K7s	K6s	K5s	K4s		
Q8s	Q7s	Q6s	Q5s			
J8s	J7s	J6s	J5s			
T8s	T7s	T6s	T5s	Raise Fold	100 0	T2s
98s	97s	96s	95s	94s	93s	92s

Example: BB Defend vs. BTN 2.5x Open

Villain: BTN (97.5 BB) Hero: BB (99 BB)

Villain RFI on the BTN to 2.5x. SB folds,
Action now on Hero in the BB with 86s.

Do we defend?



BB Defend vs. BTN Open (43.3%)

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

Example: BB Defend vs. BTN 2.5x Open

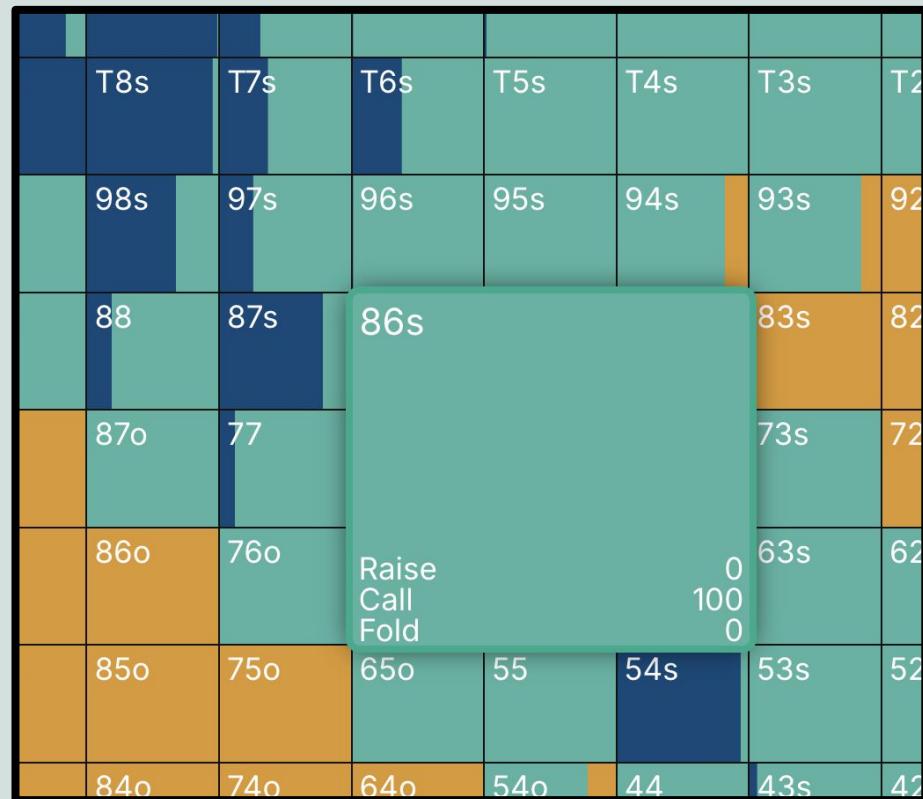
Villain: BTN (97.5 BB) Hero: BB (99 BB)

Villain RFI on the BTN to 2.5x. SB folds,
Action now on Hero in the BB with 86s.

Do we defend?

Yes. Facing a BTN RFI, we defend
our BB with 86s by calling with
100% frequency.

**Hero calls the additional 1.5BB
and closes action.**



Example: BB Defend vs. SB 3.5x Open

Villain: SB (96.5 BB)
BB)

Hero: BB (99

Villain RFI in the SB to 3.5x.

Action now on Hero in the BB with 87o.
Do we defend?



BB Defend vs. SB Open (42.8%)

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

Example: BB Defend vs. SB 3.5x Open

Villain: SB (96.5 BB) Hero: BB (99 BB)

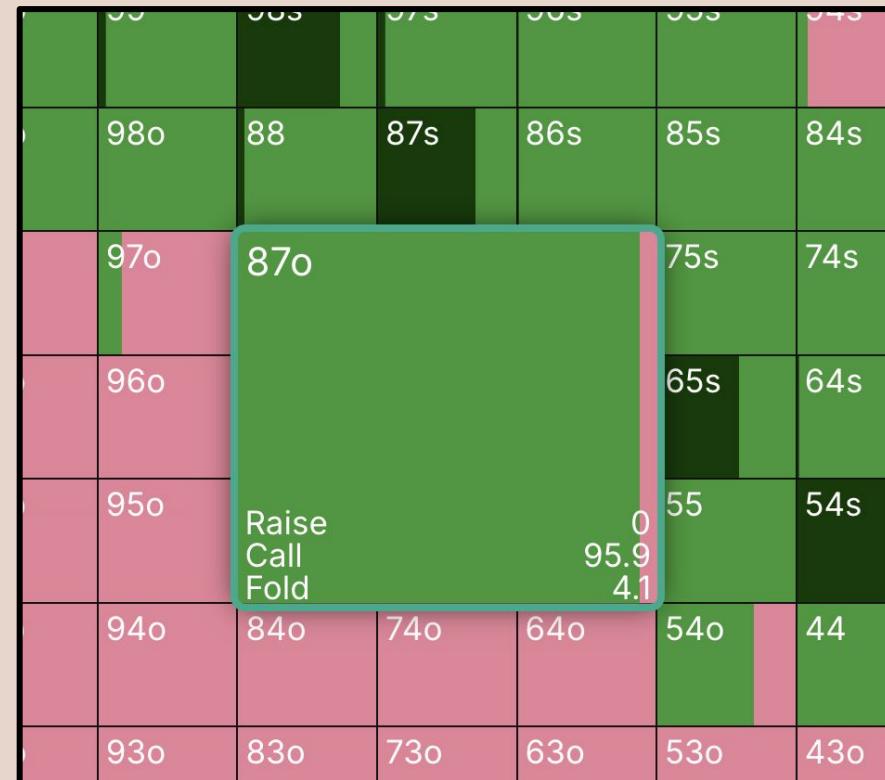
Villain RFI in the SB to 3.5x.

Action now on Hero in the BB with 87o.

Do we defend?

Yes (mostly.) Facing a 3.5x open from the SB we defend with 87o by calling with a 95.9% frequency.

Hero calls the additional 2.5BB and closes action.



Some Things to Keep in Mind

Don't just memorize charts, try to understand how we arrived at choosing these hands based on Good Pair Potential, Versatility, and Nut Potential.

Range charts are not rigid. We adjust our range if our opponents are aggressive, passive, etc. More on this later. (Are you tired of hearing this?)

Stack depths are important. They're one of the most overlooked non-psychological reasons for why we adjust our range.

Capped ranges

When playing hands, often the best piece of information we can get is from somebody calling. This could be a player in earlier position limping, the big blind defending, or even someone calling a bet on the flop.

What many of these actions do is cap your range. By defending the big blind by calling, and not raising, we have essentially “told” our opponent that we do not have a super strong hand like aces, because we would have raised.

Uncapped	Capped
1	0
1	0
1	0.5
0.8	0.8
0.6	1
0.4	1
0.2	0.8
0	0.5
0	0.2
0	0
0	0

Capped ranges

This is what limping in does, as given the option to raise with your hand, you have chosen to call instead. You are not only playing your hands face up, but your hands are garbage too.

Opening ranges are “uncapped,”
and our goal is to build opening
ranges
that are difficult to exploit.

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



Open Limp vs. Limping Behind

To Open Limp is to call 1BB pre-flop as the first player to voluntarily enter the pot.

To Limp Behind is to call 1BB after one or more players has already done so.

At first sight this distinction might seem arbitrary, but as we will see next week, there are very good reasons for it.

Effects of limping

How does a limp ahead of us affect our strategy?

Assume the UTG player called, and we're in the BTN. What should our range be and how should our size be affected?

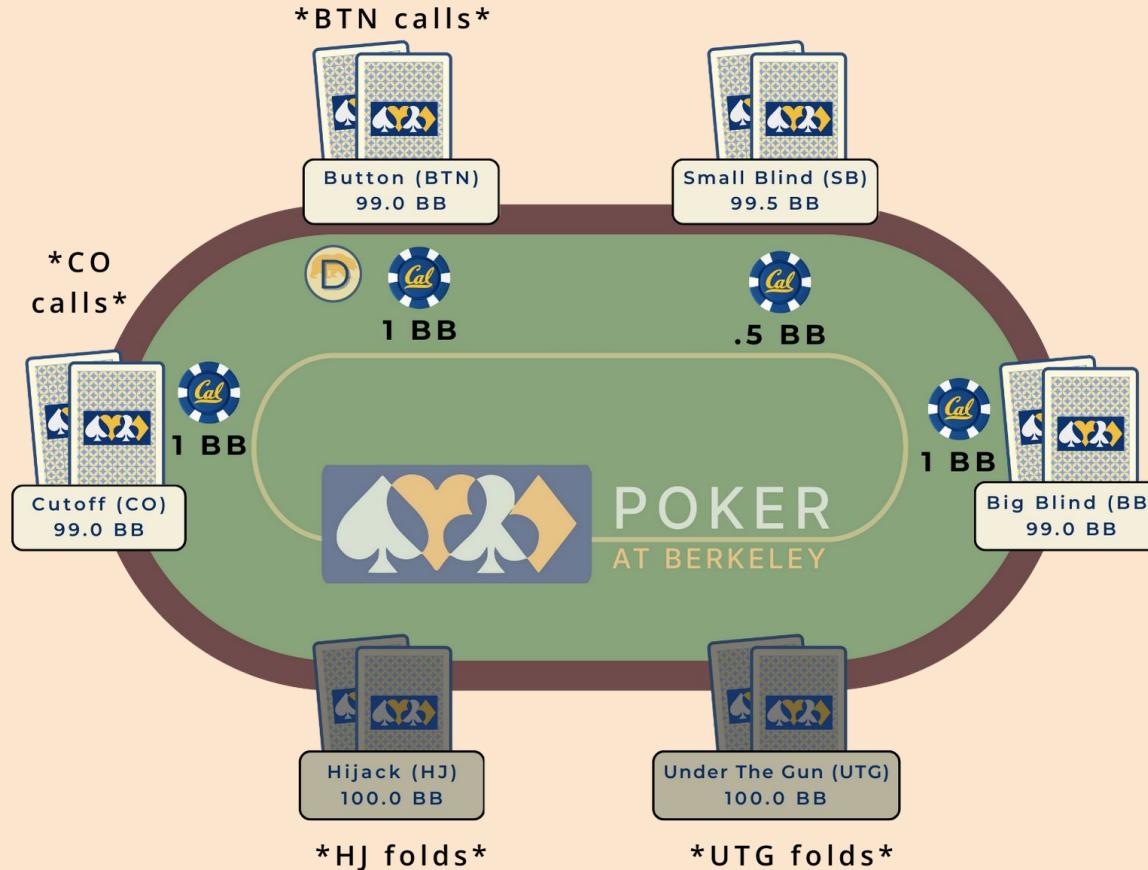
Even though limping caps UTG's range, they still called with 5 players left to act ahead. As such, a good rule of thumb is to **take the earliest limper's position's range as your own**. Essentially, we'd raise an UTG opening range from the button.

In regards to sizing, limping adds a big blind to the pot, so when we make a raise to steal the pot, we're allowed to risk more ourselves. When responding to a limp, we should raise our intended size plus **1 BB per limper**. From BTN with an UTG limp, this means $2.5 + 1 = 3.5$ BB

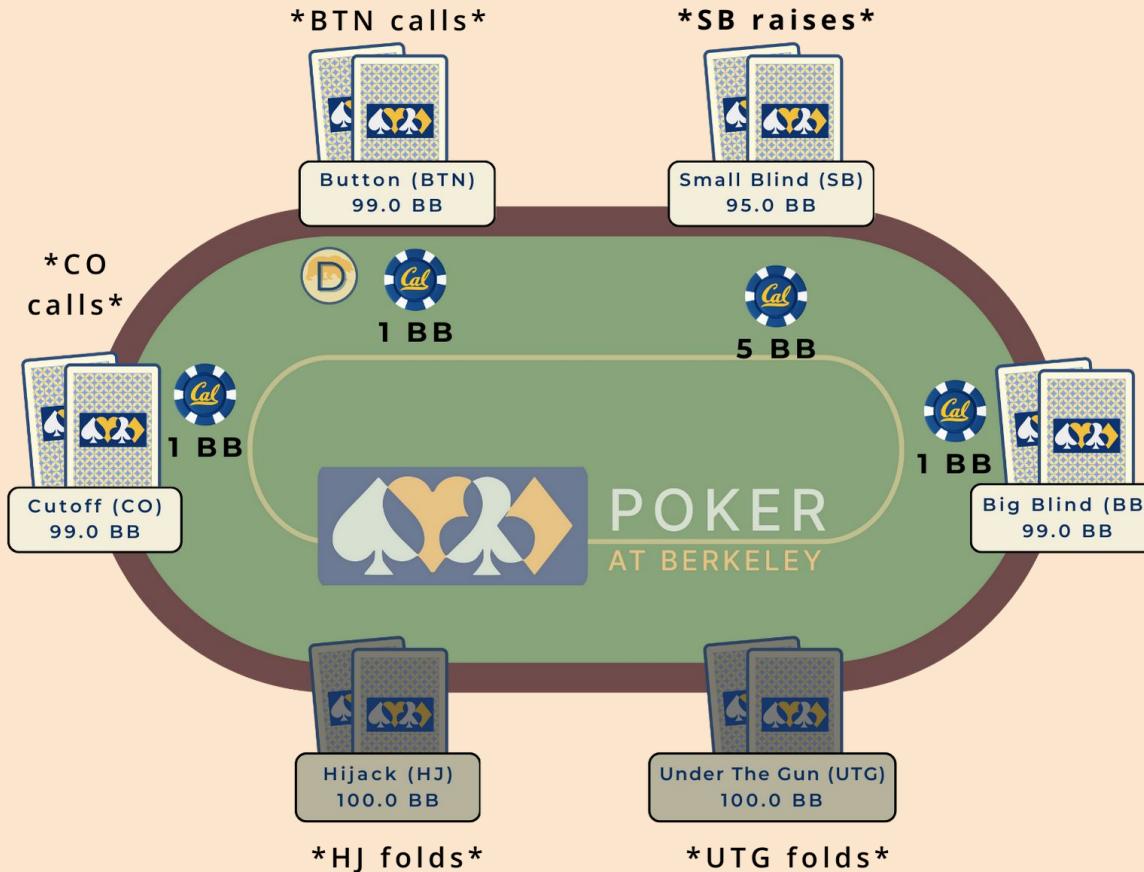
Example: When Someone Open Limsps



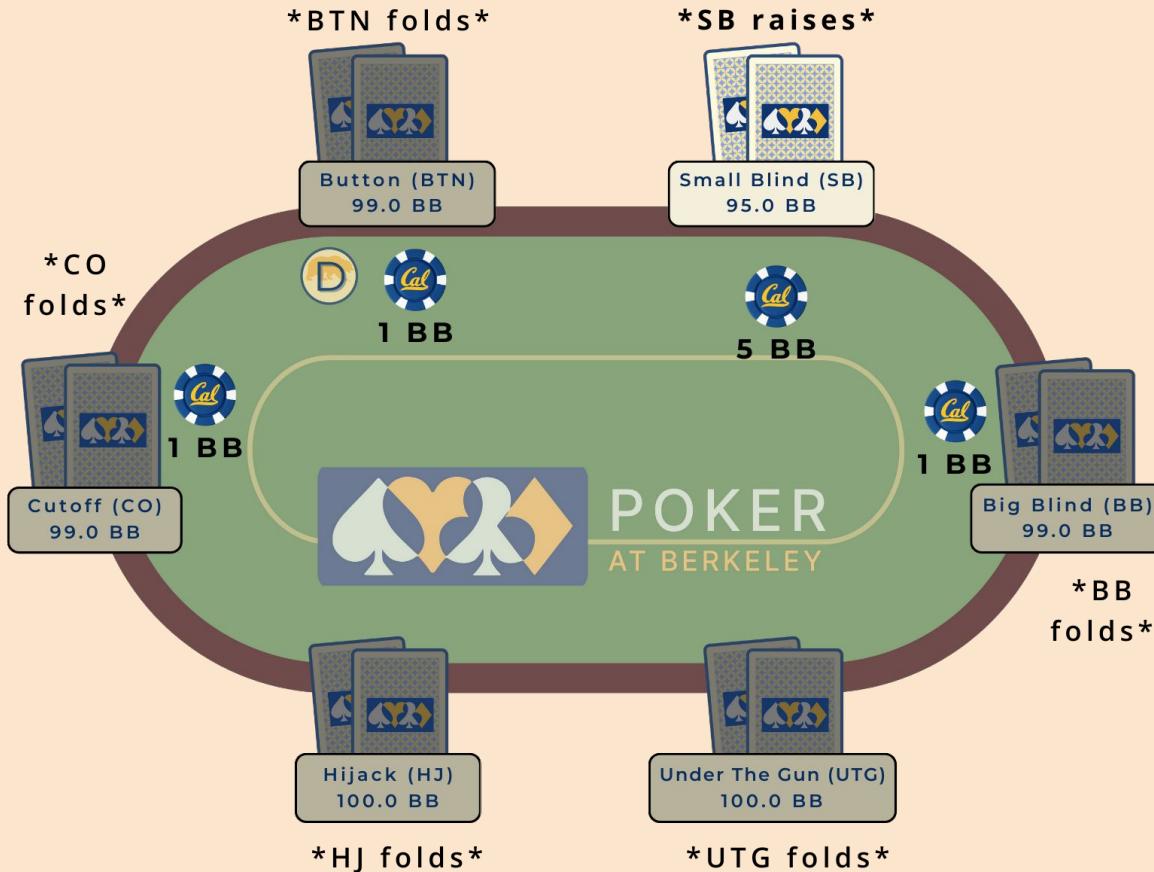
Example: When Someone Open Limsps



Example: When Someone Open Limsps



Example: When Someone Open Limsps



player types and jargon you will hear a lot:

Fish: Considerably weaker than average player

Reg: Much more competent player

Shark/Crusher: Very strong player, winning quite a bit on average

Whale: Mega Fish, terrible player that loves to gamble and throw money around

Nit: Player who is passive and folds too much in general, especially preflop

Loose: Player who overcalls and plays too many hands, especially preflop

Tight: Player who calls infrequently, instead raising or folding.

Passive: Player who is not nearly aggressive enough with betting/raising and frequently will overcall.

Aggressive: Player who applies lots of pressure by frequently betting and raising.



Which type do we want to be?

We want to be **Tight and Aggressive**, TAG for short.

TAG players play strong hands preflop and bet/raise much more often than they flat call.

By taking the stance of the Aggressor with a strong selection of hands, Hero can put a lot of pressure on Villain and get them to call when Hero has strong hands, or bluff and get them to fold when Hero is weak.

At the same time, we protect ourselves from getting bullied by playing strong hands and just calling a small percentage of the time.

Villains can have very large and exploitable weaknesses incentivizing us to play otherwise, but almost always we want to focus on just playing good poker.



Terminology Review



POKER
AT BERKELEY



Action Terminology:

Trapping

RFI / Open Raise

Defending

Closing Action

Limping behind

Player Terminology:

Having Position

PFR

Range Terminology:

Capped



POKER AT BERKELEY

Today's Playing Session

Focus on actions preflop, when raising, make sure you have a stronger range than the player before you.

Be wary when calling or limping because someone with a stronger hand could try and steal your big blind.

