

Introduction to the Theory & Practice of Poker

Lecture #6

January 21, 2020

Last Saturday's tourney

- 109 players entered
- Lasted about 3 hours
- 3k starting stack
- 10 minute levels
- 27 places paid
- Top-heavy payouts
- Final table, please stand up!
- Winner: Justin Camargo

Total prize pool: 1,853,000		Players		
27 places paid		Rank ▲	Player	Results
1st	398,460	1	JustinCamargo	398K
2nd	287,210	2	KeviCart	287K
3rd	217,720	3	NateEisenberg	217K
4th	162,130	4	JavierRomanelli	162K
5th	111,180	5	JasparCarmichae	111K
6th	92,650	6	seanie_boi8	92K
7th	74,120	7	Fisher Gandel	74K
8th	55,590	8	SimonNegin	55K
9th	37,060	9	BrentPeterson	37K
10th to 12th	32,420	10	KemengZhang	32K
13th to 15th	27,790	11	AviRubin	32K
16th to 18th	23,160	12	NicholasHanlon	32K
19th to 27th	18,530	13	TunaColuk	27K
		14	CharlieAlmone	27K
		15	JamesIngram	27K
		16	JohnnySaldana	23K
		17	JohnMcRae69	23K
		18	ColinBowen	23K
		19	AndrewMargolis	18K
		20	WonSeokSong	18K
		21	Weihaolee01	18K
		22	Digdays	18K
		23	ConnerDelahanty	18K
		24	DanielBlessing	18K
		25	jareddallas1	18K
		26	SamLebowitz	18K
		27	NickLi1	18K
		28	Isznev	Finished
		29	ElanaRubin	Finished
		30	AndrewRojas	Finished

Tonight & Tomorrow night

- Mandatory to play at least one of these satellites
 - Remember this class is pass/fail
 - And this is the easiest requirement for me to check
- I expect around 200 players in each
- Top 21/22 from each tourney qualify for seat
 - At live tournament Thursday at my house
- Tourneys start at 7pm
 - Should end by 10:30 or 11:00 at latest
 - About half the field will be out in the first hour
- At tourney start time, if you are registered and logged into PokerStars, you'll be put at a table and game will start.
 - I think you can join up to 20 minutes late (don't count on it)



Blinds Structure

Starting Chips: 3,000

Level	Blinds	Ante	Time Bank	Minutes
1	15/30		60 sec	10
2	20/40			10
3	25/50			10
4	30/60	5		10
5	40/80	10		10
6	50/100	10		10
7	60/120	15	+10 sec	10
8	75/150	20		10
9	100/200	25		10
10	125/250	30		10
11	150/300	40		10
12	200/400	50		10
13	250/500	60	+10 sec	10
14	300/600	70		10
15	350/700	85		10
16	400/800	100		10
17	500/1000	125		10
18	600/1200	150		10
19	700/1400	175	+10 sec	10
20	800/1600	200		10
21	900/1800	225		10
22	1K/2K	250		10
23	1.2K/2.4K	300		10
24	1.4K/2.8K	350		10
25	1.6K/3.2K	400	+10 sec	10

Award Structure

Entries	Places Paid
2-5	1
6-15	3
16-20	4
21-25	5
26-30	6
31-35	7
36-40	8
41-45	9
46-60	12
61-75	15
76-90	18
91-135	27
136-180	36
181-225	45
226-270	54
271-315	63
316-360	72
361-405	81
406-450	90
451-495	99
496-540	108
541-585	117

Live tournament at my house - Thursday

- Automatic entries
 - Course CAs: Danny, Daniel, Eda
 - Riddle solver: Amber
 - Some members of my family & Hopkins administration
 - 21/22 students from the satellites
 - If you cannot make it, let me know ASAP, and next person on satellite finish gets the seat
- Setup
 - 5 tables in the poker room, 1 in the hall
 - 53 total players, 5 tables of 9 and 1 table of 8
 - “Professional” dealers will be dealing the cards
 - You will help by shuffling second deck when you’re on the button
- Pizza and soft drinks
 - Arrival 5:45 pm, no later than 6:15
 - Draw seats upon arrival
 - Cards in the air at 6:30
 - You can arrive late, and your blinds will be posted, but let me know
- It’s a 17 minute drive – share Ubers
- Google doc with all the logistics for those who qualify

Cash game survey

- Raise your hand if you are gunning to win trophy
 - No more than 5 chip add ons
- Formula:
 - Starting chips + 5 add ons = 125k
 - Add 20k for each tournament you played
 - Subtract any amount you won in any tournaments
 - That gives you the total
- Survey class to find current leader
- Thursday, at start of class, we will determine winner
 - You will need to back it up with emailed
 - screen shots for evidence
- Trophy awarded Friday with other trophies



Tomorrow's guest lecturer – Steve Dannenmann



Tournaments

Types of tournaments

- Regular multi-table (our focus)
- Sit 'n go
- Survivor
- Satellite
- Turbo
- Deep stack
- Bounties
- Multi-Day
- Tag team
- Re-entry, re-buy, Add ons
- WSOP, WPT, Daily
- home game
- online

Structure (regular multi-table)

- Blind levels are timed
 - 15 minute (turbo)
 - 20-30 minute standard
 - 45-60 minute Long structure, usually multi-day
 - 90-120 minutes
 - Only found at major events with huge fields and big buy-ins
 - Often multiple flights for day 1 and sometimes day 2
- Buy-in amounts
 - Typical daily: \$80 - \$120
 - Larger events: \$250 – \$350
 - Major events: \$1,100 - \$3,500, and even \$10k and \$100k
 - Big one for one drop \$1M
 - Usually offer satellites of around 1/10 the buy-in
 - Young pros (and some amateurs) get “staked”
- Antes
 - Used to be each player anted starting around level 4
 - Nowadays: Big blind ante
 - Big blind ante goes in first and is NOT part of the BB’s bet



Payout structure

- Usually 10% of the field, sometimes 15%
 - In recent years, WSOP Main Event pays 15%
- Some are uniform payouts
- Some are very top heavy
 - Means a lot to win
 - Affects late tourney strategy
- Some carry a trophy for winner
- Very common to see chops
 - Either through ICM (more later), chippy chop, or other

Payout Structure

Finish	Payout
1st place	\$1,000
2nd	\$750
3rd	\$500
4th	\$450
5th	\$400
6th	\$350
7th	\$300
8th	\$250
9th	\$200
10th	\$150

Finish	Payout
11-12th	\$100
13-14th	\$75
15-20th	\$50
21st-30th	\$50
31st-40th	\$25
41st-50th	\$25
51st-70th	\$20
71st-100th	\$20
101st-200th	\$20
201st-250th	\$20

Setup

- Tables remain balanced
 - Two people eliminated from one table
 - Often move someone from another table
 - As tournament progresses, tables are broken up
 - Seat cards are given to players to take new seat at new table
- Bubble play (in large tournaments)
 - Before the money bubble or major pay jumps
 - Play often goes hand for hand
 - Clock stops and each hand has a 2 minute runoff
 - All tables play one hand until all the tables are done
 - We will talk later about bubble strategy

Initial setup

- Seats drawn at random
 - You cannot pick who you sit with
 - Assigned a table # and a seat #
- Initial button is often seat 9, but sometimes randomly drawn
- Tournament supervisor (or guest celebrity) announces
 - "Shuffle Up and Deal"
- Clock starts and first hand is dealt
- Each round, the blinds go up

My home game blind structure

n°	Play Time	Duration	Little Blind	Big Blind	Ante
1	0 min	20 min	100	100	0
2	20 min	20 min	100	200	0
3	40 min	20 min	100	200	200
4	1 h 00	20 min	200	400	400
5	1 h 20	20 min	300	600	600
6	1 h 40	20 min	400	800	800
7	2 h 00	20 min	500	1000	1000
8	2 h 20	20 min	600	1200	1200
9	2 h 40	20 min	800	1600	1600
10	3 h 00	20 min	1000	2000	2000
11	3 h 20	20 min	1500	3000	3000
12	3 h 40	20 min	2000	4000	4000
13	4 h 00	20 min	2500	5000	5000
14	4 h 20	20 min	3000	6000	6000
15	4 h 40	20 min	5000	10000	10000
16	5 h 00	20 min	6000	12000	12000
17	5 h 20	20 min	10000	20000	20000
18	5 h 40	20 min	15000	30000	30000
19	6 h 00	20 min	20000	40000	40000

Starting stack sizes

- Starting stack determines style of play
 - WSOP main event: 50,000 starting chips
 - Typical daily tournament; 10,000 starting chips
- If blinds start out 100-100, and you have 10,000 starting stack
 - That's 100 big blinds
- With 30k starting chips
 - That's 300 big blinds
- Recall that # of big blinds determines implied odds
 - In early rounds, big cards and big pairs go down in value
 - In later rounds, e.g. blinds are 5k – 10k, stacks are shorter
 - Very common to see pre-flop all ins
- Total chips in play does not change
 - As players get knocked out, some will have massive stacks, others short stacks
 - Important to remember effective stacks are what matter

Tournament strategy

- Many advocate TAG style in early stages
 - Counter intuitive – different from deep stacked cash games
- Your stack is your lifeline. Cannot add chips like in a cash game
- Do you want to get it all in as a 60-40 favorite? How about 70-30?
- Consider:
 - If you get it all in 5 times in a row as an 80-20 favorite
 - You'll probably be out of the tournament
 - (not really, unless you are all in and at risk each time)

Middle tourney strategy

- Strategy depends on stack size
- With small to medium stack
 - You cannot wait for good hands
 - You won't have time
 - You have to play some more speculative hands
 - You have to steal some pots
- Good players with big stacks understand this
 - They will put you to the test
 - Avoid the big stacks if you can
 - But they will be super active
- With big stack
 - Be super active
 - Medium stacks will fear you and often fold to aggression
 - They don't want to become a short stack
 - Short stacks will often shove on you, but you can handle it



Blind stealing

- As the blinds go up
 - Betting with wide range in late position to steal blinds is common
- Even if called, you will have position post-flop
- Common line:
 - Late position open for 2.5x
 - Continuation bet any flop
- Response: Big blind defense
 - When deciding whether to steal blinds
 - Consider if BB is a defender
 - Steal more often against non-defenders

Blind defending

- You should defend big blind with a wide range
 - Sometimes with re-raises
- Consider:
 - How likely is raiser to be stealing?
 - What type of player?
 - Has he been stealing blinds a lot lately?
 - What's your image?
 - Are you known as a defender?
 - Will your re-raise get respect?
 - You will be out of position after the flop
 - Are you expecting to check-fold most flops?



The concept of "M"



- The number of rounds you can survive posting the blinds and antes
 - Changes as blinds go up
- Example:
 - You have 30k in tournament chips
 - Blinds are 2000-4000 with a 4k ante
 - It costs 10k/round
 - So your M is 3, danger zone
- Example:
 - You have 250k
 - Blinds are 1500-3000 with 3k ante
 - It costs 7500 per round
 - So your M is 33, very healthy
- Your style of play is dictated by your M and other players' M values

Playing against different stack sizes in tourneys

- Big stacks
 - They can be fearless
 - They can take chances
 - They can bully you and force you to fold good hands
 - Careful against them, especially strong players
- Small stacks
 - They have one move, and they can use it
 - Ask yourself if you will call their shove
 - Some will shove pretty light if they think you'll fold
 - Tread carefully
- Medium stacks (e.g. $M = 12$)
 - Every chip is valuable to them
 - You can make them fold
 - They will not take unnecessary risks
 - These are the guys you want to put to the test

How to play different M values:

- M above 20
 - You can play poker. No need to rush. Play your game
- M between 8 and 16
 - Every chip counts. Pick your spots. You need to steal some.
 - You should start feeling some pressure to win pots
- M below 5
 - You are looking to get it all in with any decent hand

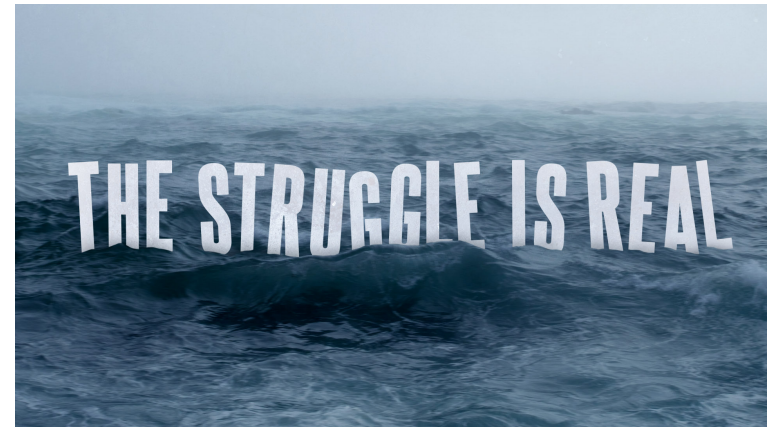


Responding to different Ms


- Consider your opponent's M
 - Is your opponent aware of different M strategies?
 - If so, interpret his moves based on his view of his M
- If opponent's M is high
 - His range will be very wide
 - He will be more likely to fold to your shove or big raise
 - He will also be more willing to lose chips and take chances
- If opponent's M is medium
 - He should play a tighter range
 - Not the right person to bluff
- If opponent's M is very low (danger zone)
 - Often call their shove with any A, with any pair or two Broadway cards

Your tournament life

- Some tournaments
 - Struggle the whole way short stacked
 - Every time you get some chips, blinds go up
 - Hover around 15 bigs the whole way
 - Really grinding it out
 - But be patient – can still win
- Some tournaments
 - Build huge stack early
 - Coast all the way to the end
- Some tournaments
 - Stack fluctuates all over the place
- These variations are common – key is to stay patient and play best poker possible in each hand. One hand at a time
- Remember “Chip and a chair” (but don’t overuse the expression)
 - Nothing more annoying than losing huge all-in with tiny stack remaining and somebody says it



Tourney situation - example

- 8 players remain in a 100 person tournament
- You are already in the money
- Pay jumps are steep
- You are second in chips and put in a raise with 
- Chip leader re-raises you all in
 - He has been doing this a lot lately – pushing the table around
- There are three very short stacks
- What do you do?

Example (cont.)

- Considerations
 - You probably have the best hand right now
 - You will be ahead if you call and in position to double up and win the tourney
 - But pay jumps are steep – you can let 3 players get eliminated and climb the money ladder
 - You have a good hand, but not a pair, and possibly are dominated
 - More likely dominating
 - Say you figure to be 60-40 favorite, is it worth risking going out now?
- Your decision
 - How much does winning mean?
 - How much do you care about the money in the jumps?
 - Is it the same decision if each pay jump is \$50,000? What if it is \$100?
 - Just how steep are those pay jumps?
 - How bad are the other players? What's your skill edge?

Another example

- 15 players (2 tables) remain in a 300 person tournament
- Pay jumps have not been steep, but final 9 places are very steep
- You are the chip leader
- Good player in middle position with medium stack opens for 3BB
- Button also with medium stack calls
- You are in the big blind with any two cards
- Very often, a big raise here is very effective
 - If you get shoved on you can fold
 - But you will take it down often enough that this is worth it
 - If they just call, a continuation bet will often take it down on the flop
 - You also want to let them know you are the table captain

Bubble strategy - example

- 200 person tournament; 20 people get paid
- Now there are 22 people left
 - 4 of them are super short stacked, less than 3 big blinds
- Consider several cases:
 - You are chip leader
 - You have above average stack
 - You have below average stack, but decent M
 - You are on life support (M=2)



Bubble – chip leader

- This is as good as it gets
- The medium stacks do not want to be eliminated before the super short stacks
- You can bully them like crazy
- Not unheard of to shove against any raise from a medium stack
 - They should only call you with top 5% hand or better
 - Sometimes, they will fold even the best hands
 - Take into consideration their motivations
 - Are they getting life-changing money if they cash?
 - Are they a pro playing to win and will play “correctly” and call you?
 - Are they a laddering person?
- You can liberally steal blinds, 3 bet, and have your way with the table
- You want to sustain the bubble as long as possible
 - Don’t knock out the super short stacks if you can help it
 - The bubble is a cash cow for you

Bubble – above average

- You can use many of the tricks of chip leader
- Try to avoid the bigger stacks
 - You will be their primary bully target
- You can bully big stacks back (high risk/high reward)
 - They will be bullying you with a wide range
 - If you play back at them, that will show great strength
 - There are leveling issues here
- You can/should bully the smaller stacks
 - But not the desperate shortest ones

Bubble – below average stack

- You are the most vulnerable
- You can wait out the tiny stacks until the bubble pops
- I prefer to pick spots and shove
 - A min cash isn't so great – better to try to double up
- Bubble presents strange dynamic
 - More chances to get called by weak holdings
 - Remember that big stacks don't want bubble to pop so may fold to your shove for that reason
- You have to consider the bubble dynamic in every decision
 - Make sure you understand how opponents are responding to the bubble

Bubble – tiny stack

- You will be eliminated in 2 rounds or less without betting
- Find your first decent hand and shove it in
- Best if you can do it in late position to not go multi-way
- Opponents will probably check it down to knock you out
 - Especially medium stacks
 - This is not collusion if they don't talk about it
 - Very common in tournaments
 - especially around the bubble



Tournament-specific strategy

- Isolation move
 - In cash games, isolate to go heads up against bad players
 - In tournaments, isolate to improve odds of winning
- Example:
 - Short stack in front of you **goes all in** for 6 big blinds
 - You have medium stack (35 bigs) and AQ
 - You know that your range is way ahead of short stack
 - Your choices:
 - Call
 - Raise
 - Which choice is better?
 - If you call, you might let in more players
 - If you raise, you are more likely to be heads up
 - I would raise in this position to isolate a most likely weaker hand and be heads up
 - This scenario unlikely to occur in a cash game (nobody plays with 6 big blinds)

Blind vs. Blind

- In cash games usually chop the blinds
- In tournaments
 - Blinds are bigger later on
 - Lots of gamesmanship and leveling
 - Small blind often steals
 - Big blind often defends
- When small blind limps, I like to raise big
 - Get more walks later on
 - Very important: if you actually have a hand – don't show it!
 - You want SB to fear that you will bluff raise often – they will steal less often
- Don't get too carried away
 - A shame to get knocked out of tourney with junk hand blind vs. blind
 - I've been there – done that

Final table strategy

- At final table, you will play short handed
 - Hand values proportional to # of players
 - E.g. KJ is a very strong hand 3 ways
 - but mediocre at best 9 handed
 - Stack size dynamics are even more pronounced
 - Ladder is a big factor
- Heads up
 - Very rarely find yourself in this position
 - Most money ever is at stake
 - Strategy is completely different
 - Play any two cards
 - Hand reading becomes extremely difficult
 - Play the player and tendencies more than the cards
 - Hand values go way up
 - Most important factor is stack size – hard to overcome big chip lead
 - Be super super aggressive, don't let up
 - Need to play a bit unpredictably



Chopping

- Very important decision
 - Affects take home pay more than most decisions at poker table
- Sometimes, pay out first place and chop the rest
- Some people care more about the title than the money
- In small time tournaments in casinos
 - Lots of pressure from all the regulars to chop
 - Almost never play it out to the end
 - House facilitates the chops
- In major televised tournaments
 - Always play to the end
 - But sometimes back room deals are made (on a handshake)



Chip chop

- Based on # of chips
 - If you have 35% of the chips, you get 35% of the prize pool
- Works well when chips stacks are similar, but not when there is a big chip leader or tiny stack
- Example:

Position	Player	Chips
1st	Alice	320,000
2nd	Bill	260,000
3rd	Charles	220,000
4th	David	200,000

Payouts:

1st: \$4,000
2nd: \$2,500
3rd: \$2,000
4th: \$1,500



Chip chop

- Each player would get between \$1,500 and \$4,000
- Calculate percentage of the chips.
- Alice has 32% of the chips, so gets 32% of the 10k prize pool
- Seems like a fair deal

Position	Player	Chips
1st	Alice	320,000
2nd	Bill	260,000
3rd	Charles	220,000
4th	David	200,000

Payouts:
1st: \$4,000
2nd: \$2,500
3rd: \$2,000
4th: \$1,500

Position	Player	Chips	Prize after "chip count" deal
1st	Alice	320,000	\$2,780.00
2nd	Bill	260,000	\$2,540.00
3rd	Charles	220,000	\$2,380.00
4th	David	200,000	\$2,300.00

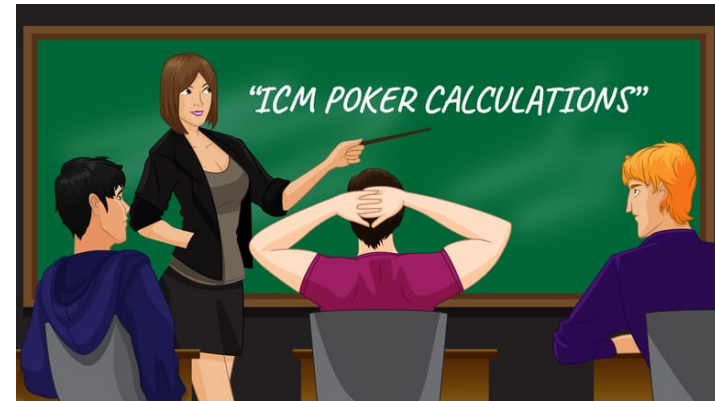
Chip chop

- However, what if Alice had a huge chip lead?
- She would get more than first place money
- So chip chop doesn't work here
 - Also doesn't work if someone has small stack for less than 4th place money

Payouts:
1st: \$4,000
2nd: \$2,500
3rd: \$2,000
4th: \$1,500

Position	Player	Chips	Prize after "chip count" deal
1st	Alice	670,000	\$4,180.00
2nd	Bill	150,000	\$2,100.00
3rd	Charles	110,000	\$1,940.00
4th	David	70,000	\$1,780.00

Independent Chip Model (ICM)



- Most common
- Does not take into account skill level
- Mathematical formula based on # of players left, stack sizes, payout amounts
- ICM takes into account that chip values change as tournament progresses
 - The more chips you have, the less each chip is worth
- Calculation:
 - Compute probability of each player finishing in each remaining spot
 - Based on stack size alone
 - Multiply percentages by theoretical cash value of each stack
 - Formula is complex, but players use ICM calculators
 - Enter chip stacks and payouts, and ICM calculator produces new payouts

ICM calculation

- ICM payouts for earlier example

Position	Player	Chips	Prize after "ICM" deal
1st	Alice	320,000	\$2,699.85
2nd	Bill	260,000	\$2,537.58
3rd	Charles	220,000	\$2,414.78
4th	David	200,000	\$2,347.79

Payouts:
1st: \$4,000
2nd: \$2,500
3rd: \$2,000
4th: \$1,500

Compare to Chip Chop

Position	Player	Chips	Prize after "chip count" deal
1st	Alice	320,000	\$2,780.00
2nd	Bill	260,000	\$2,540.00
3rd	Charles	220,000	\$2,380.00
4th	David	200,000	\$2,300.00

ICM calculation

- ICM payouts for big stack Alice

Payouts:
1st: \$4,000
2nd: \$2,500
3rd: \$2,000
4th: \$1,500

Position	Player	Chips	Prize after "ICM" deal
1st	Alice	670,000	\$3,460.73
2nd	Bill	150,000	\$2,370.83
3rd	Charles	110,000	\$2,197.61
4th	David	70,000	\$1,970.83

Compare to Chip Chop

Position	Player	Chips	Prize after "chip count" deal
1st	Alice	670,000	\$4,180.00
2nd	Bill	150,000	\$2,100.00
3rd	Charles	110,000	\$1,940.00
4th	David	70,000	\$1,780.00

Chopping

- Interesting fact
 - ICM & Chip Chop produce exact same results for only two players
- People make all kinds of deals
 - Sometimes compute Chip Chop & ICM and utilize some compromise
- Some players are very bad and agree to ridiculous deals
- Some players care more about titles and will take less money to get title and bragging rights
- ICM, tweaked for skill level is probably the most fair
- Sometimes big stack demands first place money, and remaining players chop the rest – pretty common
- Some players refuse to ever chop
 - Often resulting in being the next one eliminated - karma

