

THE
PSYCHOLOGY OF
HUMAN
MISJUDGMENT- II



Saturday 25 September 2010



PSYCHOLOGICAL TENDENCY # 2

HIGH CONTRAST EFFECT

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“Dear Mother and Dad, Since I left for college I have been remiss in writing and I am sorry for my thoughtlessness in not having written before.” I will bring you up to date now, but before you read on, please sit down. You are not to read any further unless you are sitting down, okay?



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“Well, then, I am getting along pretty well now. The skull fracture and the concussion I got when I jumped out the window of my dormitory when it caught on fire shortly after my arrival here is pretty well healed now...



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“I only spent two weeks in the hospital and now I can see almost normally and only get those sick headaches once a day...



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“Fortunately, the fire in the dormitory, and my jump, was witnessed by an attendant at the gas station near the dorm, and he was the one who called the Fire Department and the ambulance...



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He also visited me in the hospital and since I had nowhere to live because of the burnt-out dormitory, he was kind enough to invite me to share his apartment with him. It's really a basement room, but it's kind of cute. He is a very fine boy, and we have fallen deeply in love and are planning to get married. We haven't set the exact date yet, but it will be before...



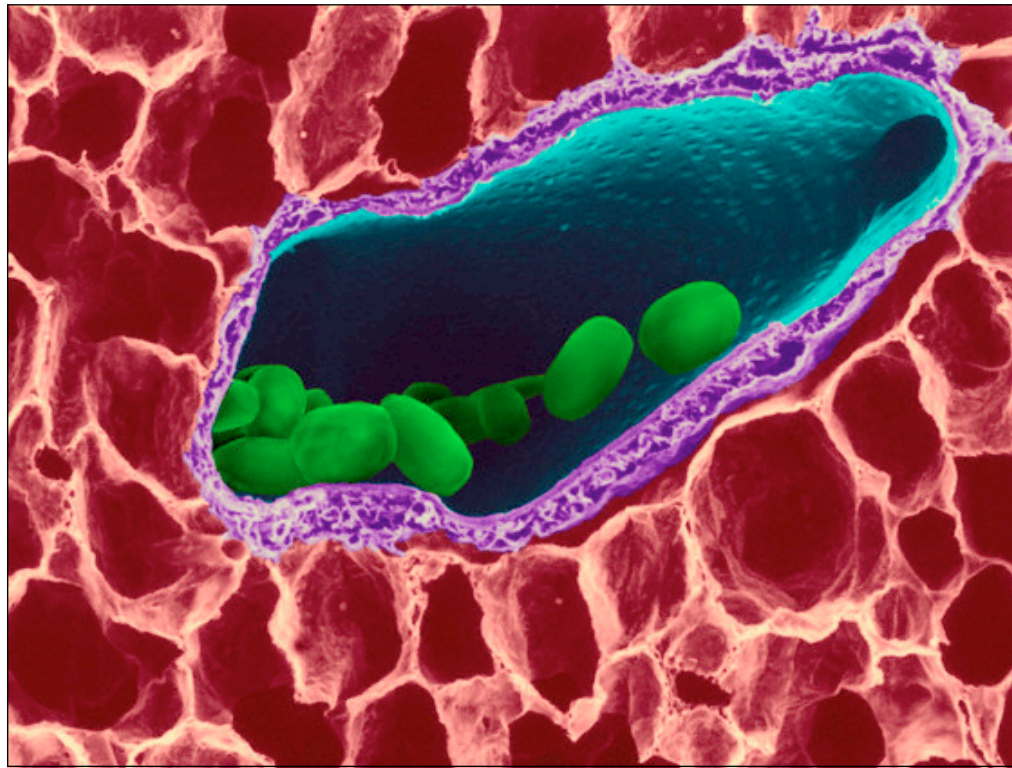
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my pregnancy begins to show. Yes, Mother and Dad, I am pregnant. I know how much you are looking forward to being grandparents and I know you will welcome the baby and give it the same love and devotion and tender care you gave me when I was a child...



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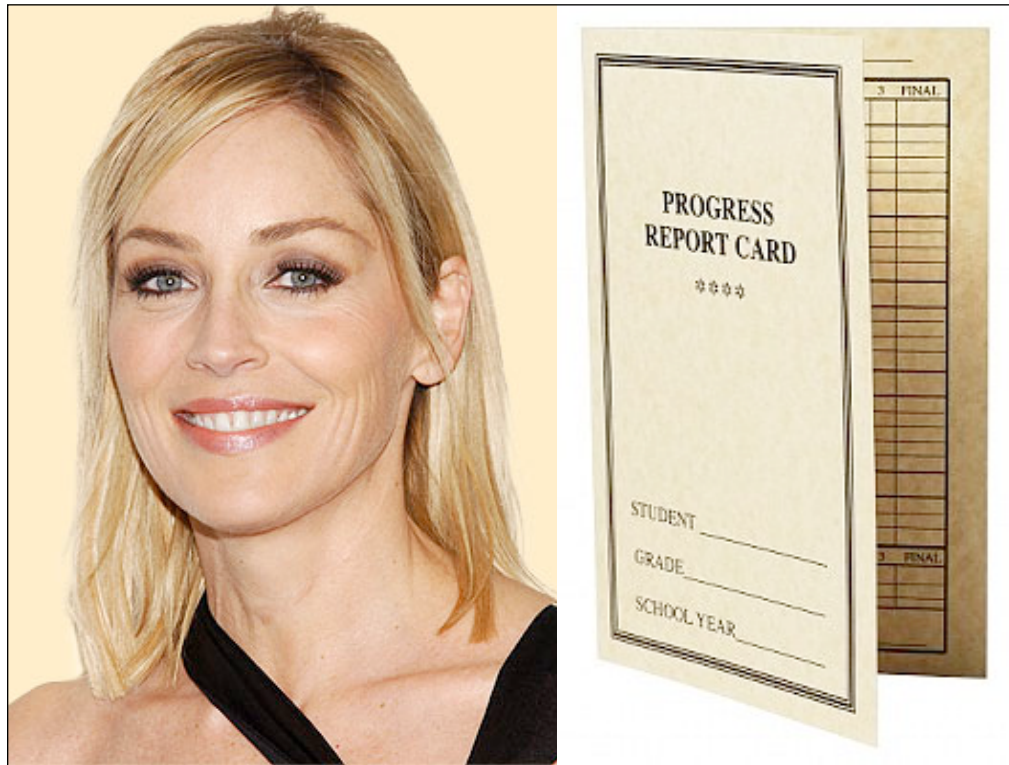
“The reason for the delay in our marriage is that my boyfriend has a minor infection which prevents us from passing our premarital blood tests and I carelessly caught it from him...



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“I know that you will welcome him into our family with open arms. He is kind and, although not well educated, he is ambitious...”



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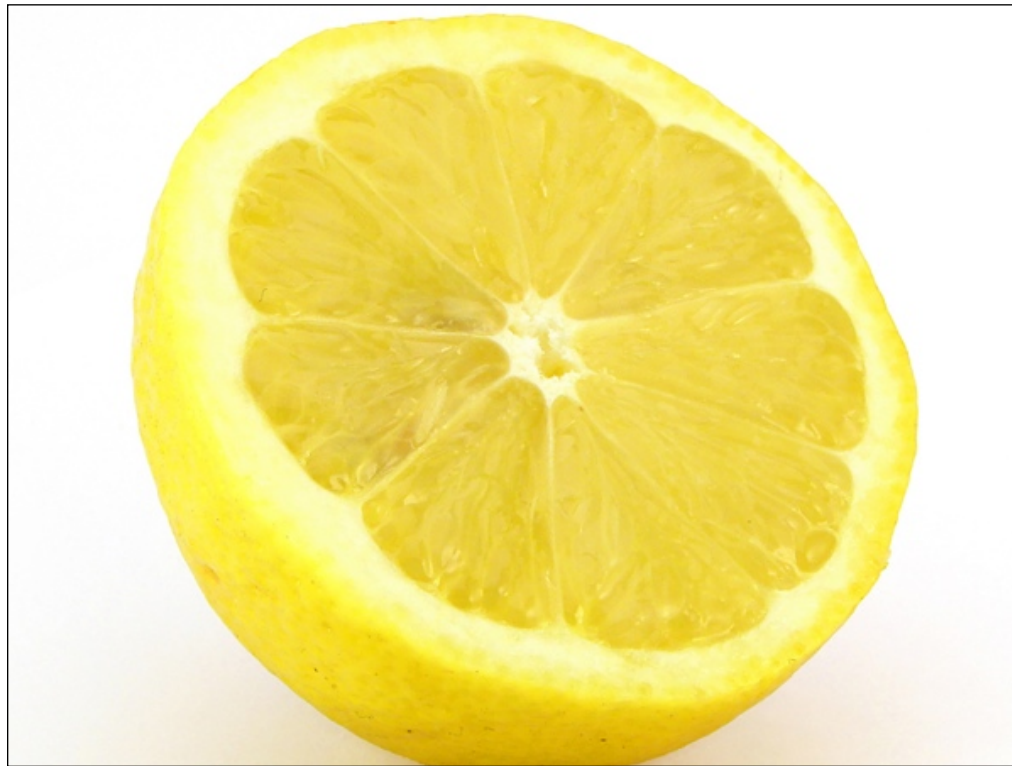
“Now that I have brought you up to date, I want to tell you that there was no dormitory fire, I did not have a concussion or skull fracture, I was not in the hospital, I am not pregnant, I am not engaged, I am not infected, and there is no boyfriend. “However, I am getting a “D” in American History and an “F” in Chemistry, and I want you to see those marks in their proper perspective. Your loving daughter, Sharon.”



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What will happen if you put this in your mouth and then...



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and then you put this in your mouth?



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In availability bias – it was about anchoring – u were anchoring to price of lamp and price of car and NOT anchoring to wealth
here its about contrast – high contrast – the Rs 1000 saving on a lamp looks BIG but SMALL in a car



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Experiments show that average wine sales increase substantially by having the \$150 bottle listed right next to the \$95 bottle. Moreover, the sales increase happens not because of a rise in sales of the \$150 bottle but due to a rise in sales of the \$95 bottle. The role of the \$150 bottle is to act as a decoy to make the \$95 bottle appear more desirable.

The way to sell a lot of \$800 shoes is to display some \$1,200 shoes next to them...

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Decoy

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Averaging down is a good idea but like most good ideas, if they are carried to the extreme, become bad ideas...

Blind averaging down can be injurious to your (financial) health.

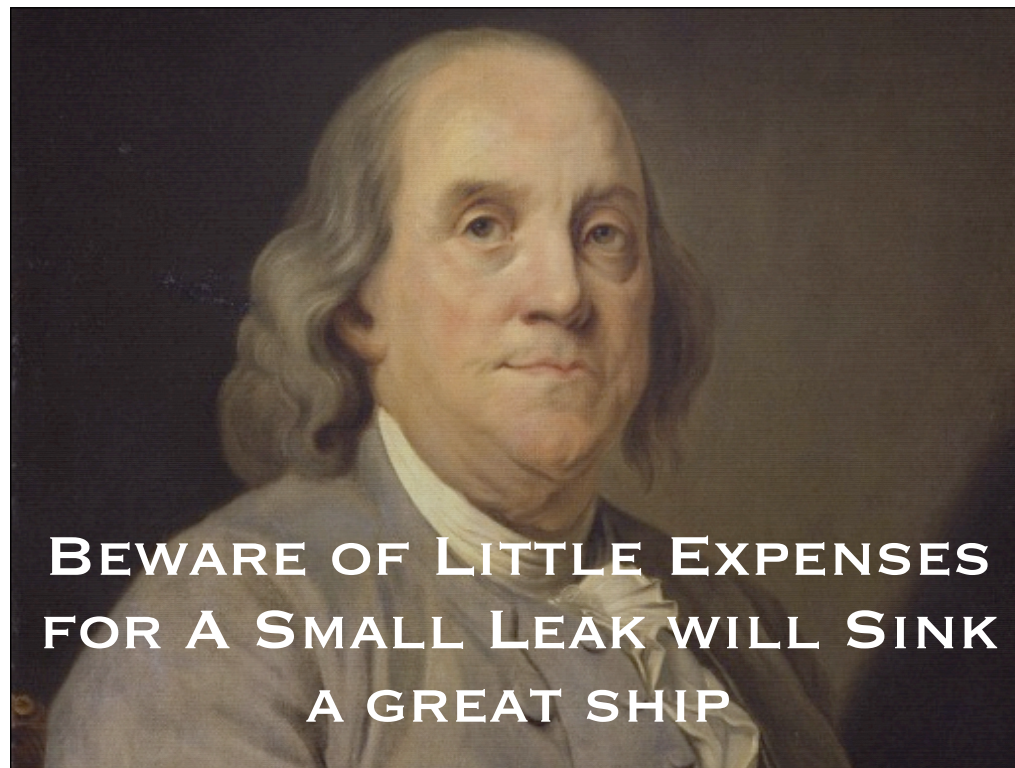
Just because a stock has fallen 80%, doesn't necessarily make it cheap and worthy of averaging down



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Bling averaging down can cause grave harm if you do it with the wrong kind of stock.



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Here is another example...

Small things add up

The LOOK small, but they add up and become BIG

	A	B	C
1	Initial Capital	\$1.00	
2	Brokerage	\$0.01	
3	Principal	\$1.00	
4	Annual Return	100.00%	
5	Capital Gains Tax	10.00%	
6	Brokerage, demat charges etc	0.50%	per transaction
7	Summary		
8	Terminal Wealth	Buy-and-hold	Market Timing
9	After 5 Years		\$23.46
10	After 10 Years		\$553.31
11	After 15 Years		\$13,047.95
12	After 20 Years		\$307,691.34
13	After 25 Years		\$7,255,850.41
14	After 30 Years		\$171,104,475.16

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How would the Buy-and Hold Strategy do?

◇	A	B	C
1	Initial Capital	\$1.00	
2	Brokerage	\$0.01	
3	Principal	\$1.00	
4	Annual Return	100.00%	
5	Capital Gains Tax	10.00%	
6	Brokerage, demat charges etc	0.50%	per transaction
7	Summary		
8	Terminal Wealth	Buy-and-hold	Market Timing
9	After 5 Years	\$28.61	\$23.46
10	After 10 Years	\$912.51	\$553.31
11	After 15 Years	\$29,197.12	\$13,047.95
12	After 20 Years	\$934,304.91	\$307,691.34
13	After 25 Years	\$29,897,753.99	\$7,255,850.41
14	After 30 Years	\$956,728,124.47	\$171,104,475.16

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It DECIMATES Market Timing!

And all because of deferred tax, and lower frictional costs of transfer of ownership.

The so-called “friction less markets” actually cost a lot.

Perhaps, they cost just too much.

Lower brokerage rates have turned people to become gamblers who in aggregate cannot win by trading against each other (zero-sum-game). In the aggregate they lose because of transaction costs...



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Stock splits can't make people richer?

How could exchanging a Rs 100 note for ten Rs 10 notes make you rich?



PSYCHOLOGICAL TENDENCY # 3

LOW CONTRAST EFFECT

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Evolution happens too slowly to be observed. Low contrast effect. Small changes tend to go un-noticed

Time lapse video:

<http://www.youtube.com/watch?v=6B26asyGKDo>



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If you put a frog in boiling hot water, it will instantly jump out and escape



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But if you put a frog in lukewarm water and slowly boil it, it will slowly boil to death!

While there is no truth to this story whatsoever, the human equivalent of the boiling frog is there in all of us...



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Successful seduction, among other things, involves a combination of escalating tiny commitments which go un-noticed until its too late!



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Small and seemingly harmless initial commitments, set the stage for much larger subsequent commitments



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FOLLOWED BY...

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Earlier Compliance Rate: 17%

Invocation of Contrast Effect + Cognitive Dissonance



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Petition to Keep California Beautiful

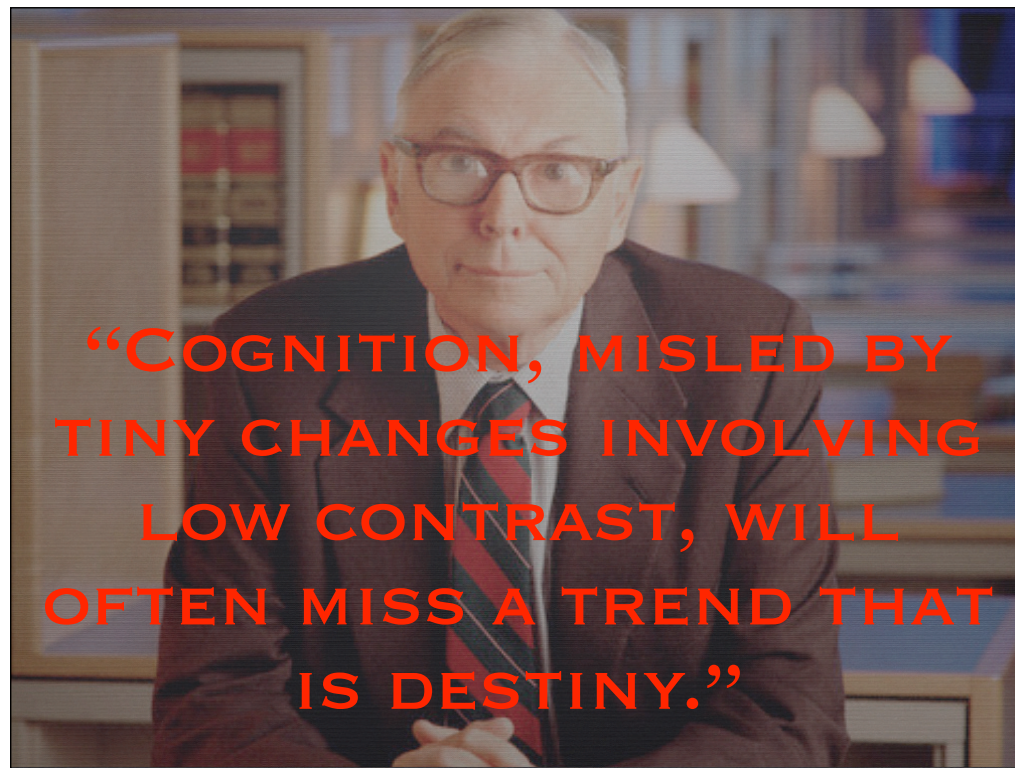


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Earliest Compliance Rate: 17%

Compliance Rate with prior related but much smaller request: 77%



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“Cognition, misled by tiny changes involving low contrast, will often miss a trend that is destiny.”



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Digital camera's killed the photographic film business.
But it did not happen in a day, or a month, or a quarter.

It was slow, painful (for films)....



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“Cognition, misled by tiny changes involving low contrast, will often miss a trend that is destiny.”

You’ve just got to acquire the skill to spot long-term trends – even if they are slow – indeed PARTICULARLY because they are slow because OTHERS who are victims of low contrast are going to MISS IT

Sometimes the light at the end of the tunnel is from an oncoming train!



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Pictures of common objects, coming slowly into focus, were viewed by adult observers. Recognition was delayed when subjects first viewed the pictures out of focus. The greater or more prolonged the initial blur, the slower the eventual recognition. Interference may be accounted for partly by the difficulty of rejecting incorrect hypotheses based on substandard cues.

You need to distance yourself from the noise...

10-Year Digest



Financial Highlights

	2002-03	2001-02	2000-01	99-2000	98-99	97-98	96-97	95-96	94-95	93-94
	(Rupees in crores)									
Sales	19297	15502	16233	16250	14994	14824	14131	14710	13867	11671
Other Income	788	1274	784	989	651	728	828	699	650	583
Expenditure	15460	15765	14850	12112	14142	12854	12501	12697	12120	10434
(Net of Stock Accretion/Depletion)										
Operating Profit (PBDIT)	2165	1011	2167	1202	1503	2498	2458	2712	2397	1820
Depreciation	1147	1156	1144	1133	1104	795	691	585	524	510
Interest & Finance Charges	1334	1562	1752	1789	2017	1554	1179	808	710	765
Profit before Tax	-316	-1707	-729	-1720	-1618	149	588	1319	1163	545
Provision for Tax/Income Tax Refund	-12	0	0	0	-44	16	73	—	55	—
Profit after Tax	-304	-1707	-729	-1720	-1574	133	515	1319	1108	545
Equity Capital	4130	4130	4130	4130	4130	4130	4130	4130	3986	3986
Reserves & Surplus (Net of DRE)	-2141	-1878	34	635	2756	4359	3868	3807	2570	1677
Net Worth	1989	2252	4165	4765	6886	8489	7998	7937	6556	5663
Total Loans	12970	14019	14251	15082	21017	20015	17421	14574	12214	11331
Net Fixed Assets	14036	14798	15177	15873	18307	14137	12624	8771	7557	7011

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Look what SAIL looked like in 2002-03.
 Stock was quoting at Rs 6.
 In 4 years it went to 150. How did this happen?



Ten Years at a Glance

FINANCIALS

(Rupees in crore)

	2006-07	2005-06	2004-05	2003-04	2002-03	2001-02	2000-01	1999-2000	1998-99	1997-98
Gross Sales	39189	32280	31805	24178	19207	15502	16233	16250	14994	14624
Net Sales	33923	27860	28523	21297	16637	13519	14110	14311	13138	12709
Earnings before Interest, Depreciation, & tax(EBIDTA)	10966	7381	11097	4652	2165	1011	2167	1202	1503	2498
Depreciation	1211	1207	1127	1123	1147	1156	1144	1133	1104	795
Interest & Finance charges	332	468	605	901	1334	1562	1752	1789	2017	1554
Profit before tax (PBT)	9423	5706	9365	2628	-316	-1707	-729	-1720	-1618	149
Provision for tax/Income Tax Refund (-)	3221	1693	2548	116	-12	-	-	-	-44	16
Profit after tax (PAT)	6202	4013	6817	2512	-304	-1707	-729	-1720	-1574	133

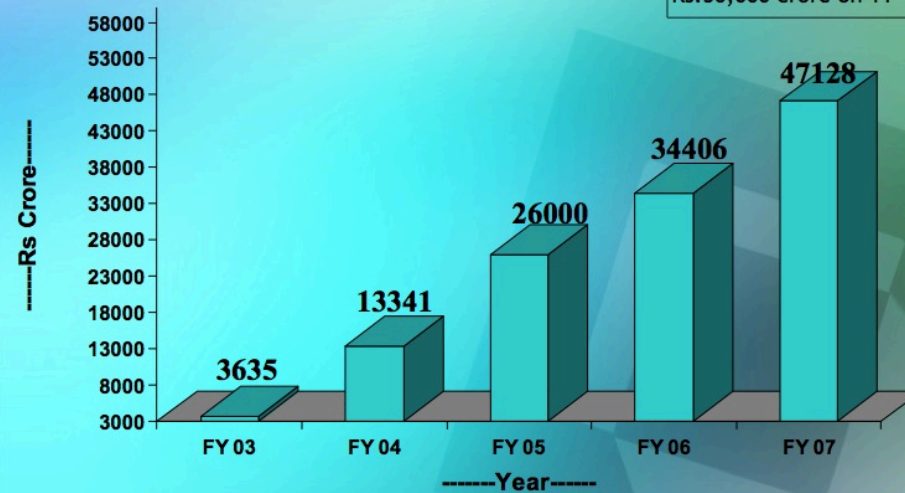
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It did not happen in a day, or a week, or a month.
It would have been missed by those who focus on short term

Market Capitalization

Market Cap crossed level of
Rs.50,000 crore on 11-4-2007



RELATIONSHIP OF INTRINSIC VALUE FACTORS TO MARKET PRICE			
I. General market factors.			
II. Individual factors.			
A. Speculative	1. Market factors	<ul style="list-style-type: none"> a. Technical. b. Manipulative. c. Psychological. 	
	2. Future value factors	<ul style="list-style-type: none"> a. Management and reputation. b. Competitive conditions and prospects. c. Possible and probable changes in volume, price, and costs. 	Attitude of public toward the issue.
B. Investment	3. Intrinsic value factors	<ul style="list-style-type: none"> a. Earnings. b. Dividends. c. Assets. d. Capital structure. e. Terms of the issue. f. Others. 	Bids and offers. } Market price.

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This is a fantastic description of markets from Ben Graham's Security Analysis.

It tells you what you need to IGNORE and what you need to FOCUS on

There are only a FEW things out there that are important. All the rest is NOISE.

So you need to figure out in life how to get rid of the noise and focus on the music in there somewhere...



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How could two smart guys ended up willing to pay more than Rs 100 for a 100-rupee note?

This auction was created by Martin Shubik
see:

<http://www.heretical.com/pound/dollar.html>

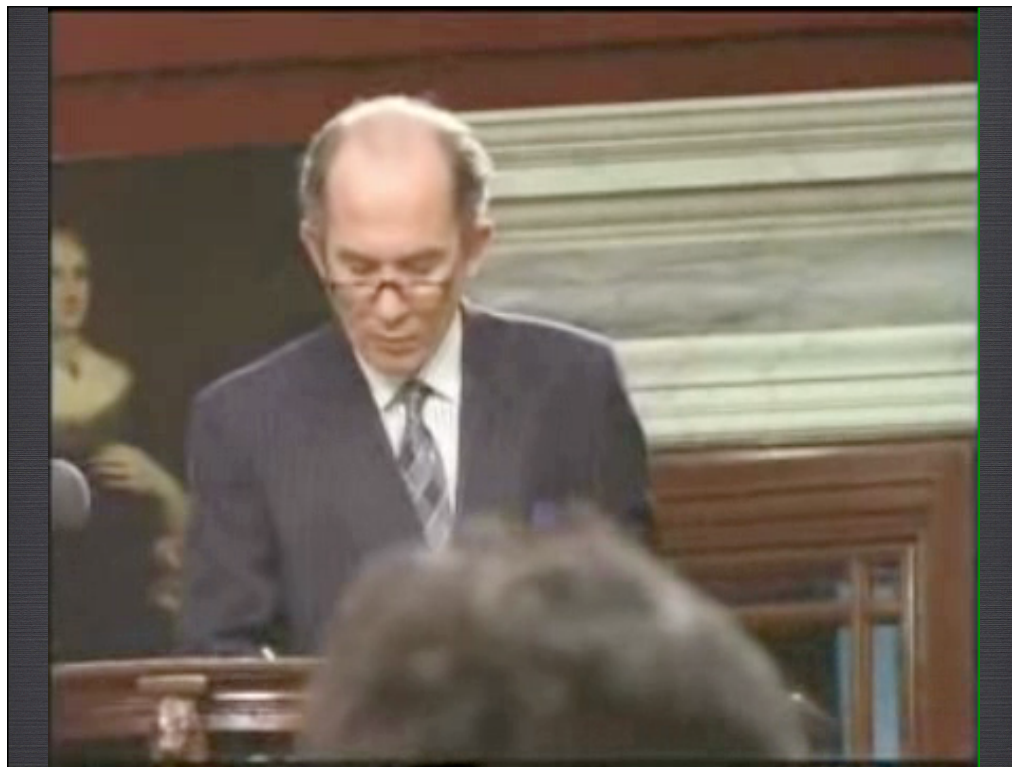
Many models at work here

one of them is slow contrast effect. Notice bids escalate slowly

Auctions are a lollapalooza – multiple models explain such multiplier effects.

People go crazy when they enter into an auction as bidders. It happens again and again.

What explains this crazy behavior?



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Auction video



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How did this very smart businessman end up overpaying for these assets in auctions?

Winners' Curse... – what models explain this lollapalooza outcome?



PSYCHOLOGICAL TENDENCY # 4

DEPRIVAL
SUPER
REACTION

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take the bone from my mouth and see what I do to you!



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Traffic Crossing video

What SHOULD you do when the light turns yellow?

What do yo ACTUALLY do?

What happens to people's risk assessment abilities when are about to "lose something?"

Well, they become gamblers...



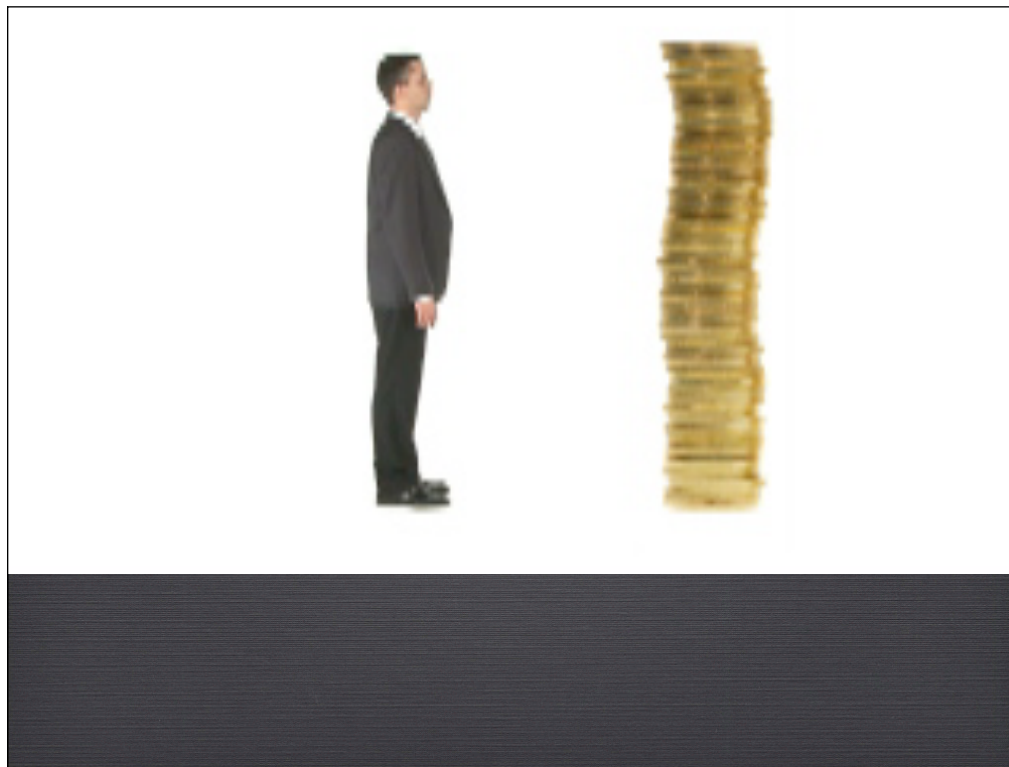
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<http://www.youtube.com/watch?v=6VT1dhBUEm4>

Notice DSRS as depicted in this song is contradictory to “If i am not near the girl I love, I will love the girl I am near” – availability bias

Thats the beauty of mental models – sometimes they reinforce each other, sometimes they contradict...

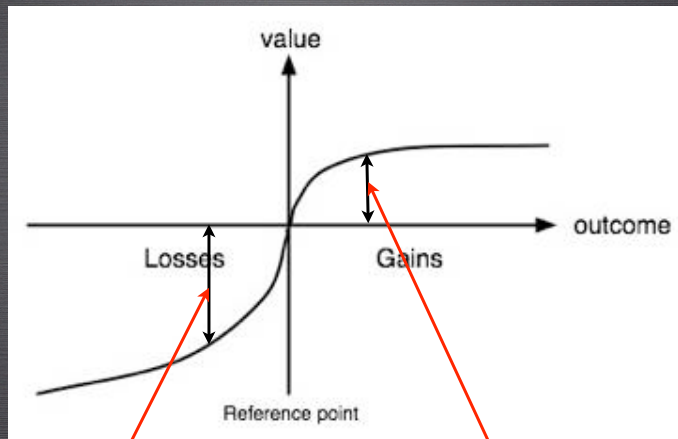


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Funny video depicting man experiencing misery when his cash pile disappears...

People feel considerably more pain after incurring a financial loss than they feel pleasure after achieving an equivalent gain

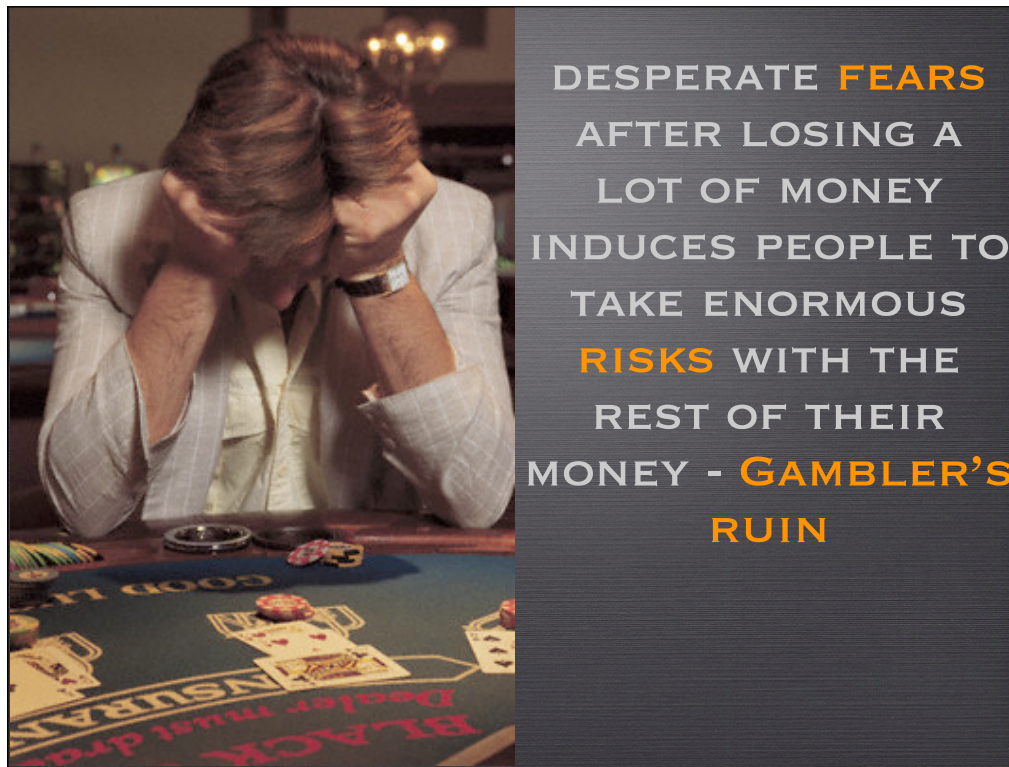


“The quantity of a man’s pleasure from a ten-dollar gain does not exactly match the quantity of his displeasure from a ten-dollar loss.”

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How much more?
About two times.

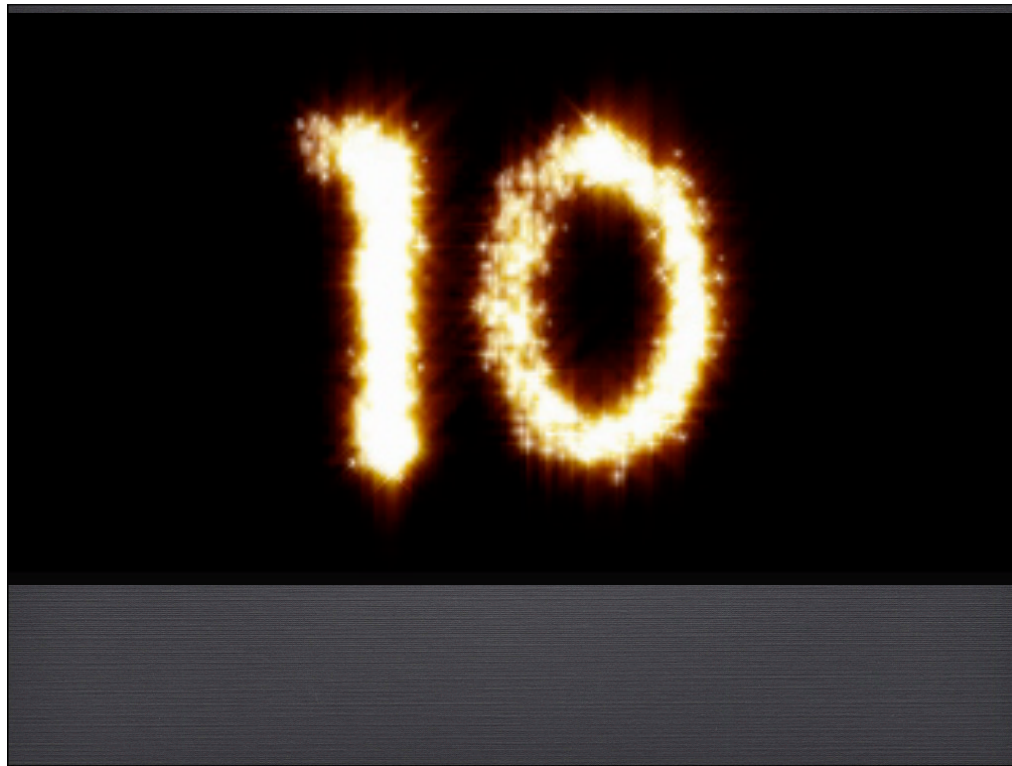


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Many gamblers stake everything that's left of their bankroll on the riskiest of the bets – which obviously offer the highest payouts – just to “get back in the game”

Why can't people afford to write off their losses?



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Countdown video

People go crazy when they see countdowns
They overpay for things they don't need and shouldn't have...

“The sale is about to end”



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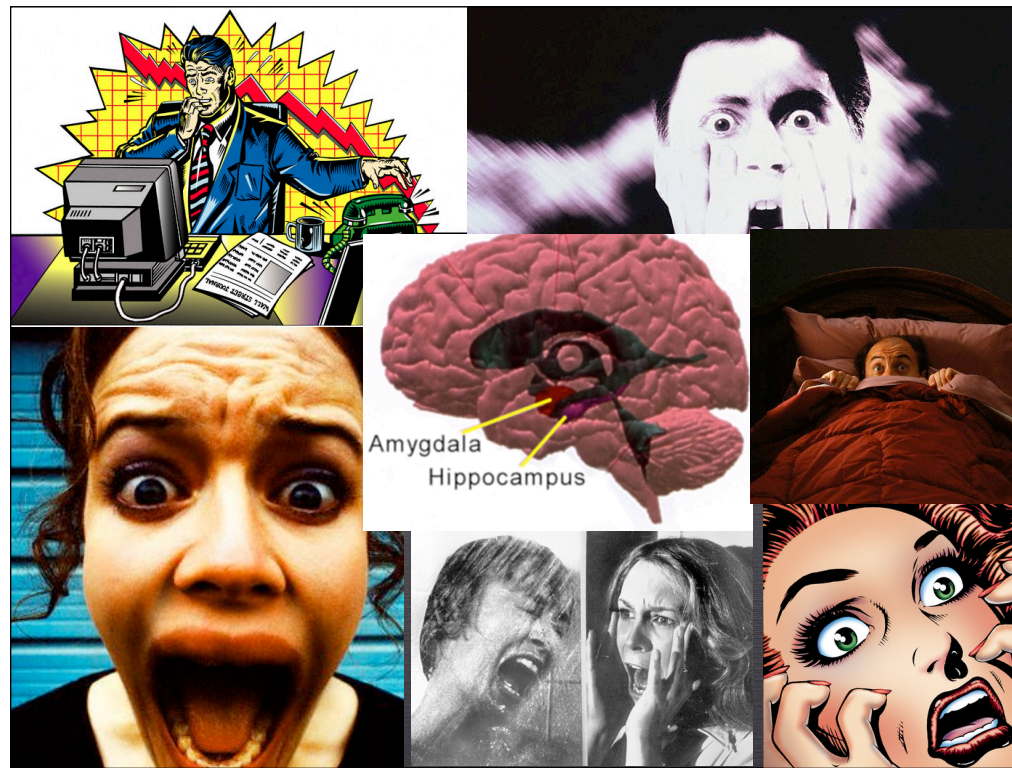
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Countdown effect

Volumes rise during the last few minutes of trading. Why?

“I am going to lose this opportunity to buy (sell) this stock because it would open higher (lower) tomorrow morning. Therefore I am going to behave like the man who when approaching a traffic crossing sees the light turn yellow from green...”



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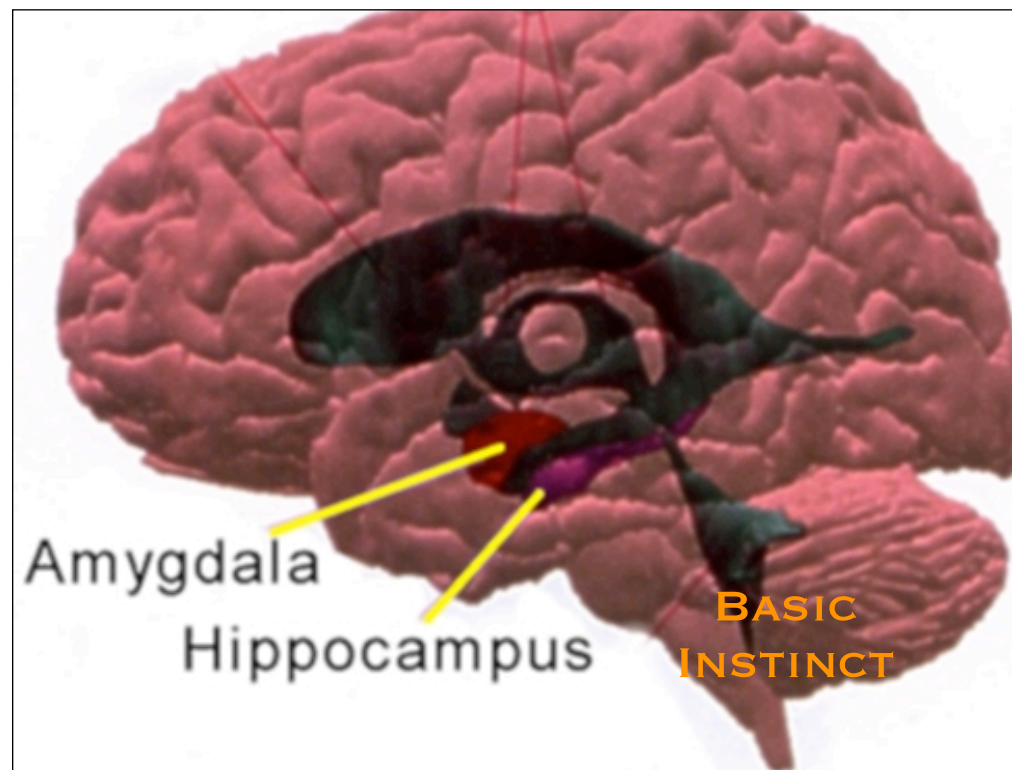
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Fear of losing something possessed, or something not possessed but almost possessed.

Its processed in amygdala – part of the innermost brain.

Basic Instinct – part of our genome

“Run away when you sense danger” had a huge survival advantage when your ancestors lived in the caves. But modern world is different....



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Neuroeconomics shows that financial losses and mortal danger are processed in the same part of the brain: Amygdala

Game: 3 types of subjects were chosen to play a game: normal brains, damaged amygdalas, brains damaged in areas other than amygdala (controls). Each player was given a starting capital of \$20 and was then offered a choice to play a game or not. The game involved a coin toss. To play the game one had to invest \$1

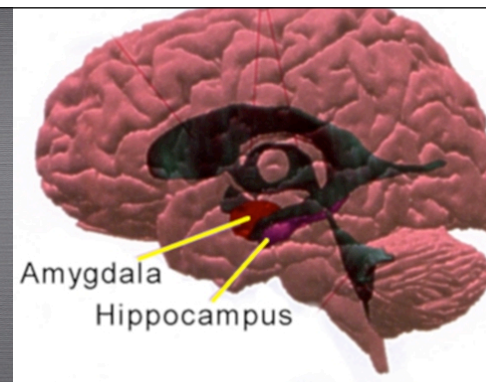
HEADS, YOU LOSE \$1
TAILS, YOU WIN \$2.5
TOTAL NUMBER OF ROUNDS: 20

WHAT WOULD YOU DO?

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You'd play all the rounds. Odds is heavily loaded – you may lose a few rounds but overall result in 20 rounds is expected to in your favor.



DAMAGED AMYGDALAS PLAYED 84% OF THE
ROUNDS

NORMALS PLAYED 63%

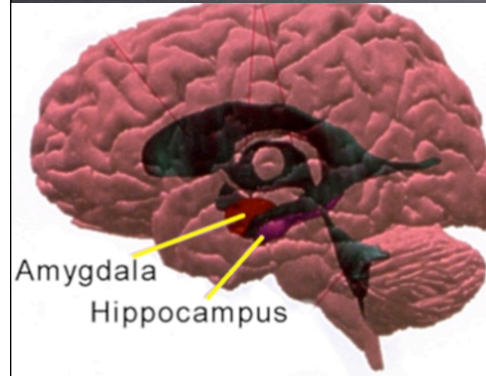
CONTROLS PLAYED 61%

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Why???

DAMAGED AMYGDALAS DID MUCH
BETTER THAN THE OTHER TWO
GROUPS!



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This does not mean that to be rational you have to experience brain damage :-)

FEAR OF **LOSING** OUR MTM
PROFITS MAKES US **SELL** OUT OF
GOOD DECISIONS TOO EARLY.

THE **STUPIDITY** OF “YOU CAN’T
GO BROKE TAKING A PROFIT.”



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“You own a small casino in Las Vegas. It has fifty standard slot machines which are identical in appearance. “Moreover, they have exactly the same payout ratios. The probability of hitting a jackpot is identical in all of them and they amount of money won in case of a jackpot is also the same. “But there’s one slot machine in this group that, no matter where you put it among the fifty, produces 25% more winnings for the casino at the end of the every day. “What is different about that heavy winning slot machine?



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In a game of skill, like shooting, a near miss gives useful feedback and encourages the player by indicating that success may be within reach



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What will happen if slot machines and instant lotteries are contrived to ensure a higher frequency of near misses than would be expected by chance alone?



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Near misses in random situations fool people into “trying harder” next time



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If the winning lottery number is 865304, the owner of which ticket is likely to “try harder” next time?

You’ve got to learn how to deal with losses in life (personal and professional). One way to do that is to invert. How much happier would you have been because your date came five minutes EARLY? And if you would not have been GREATLY pleased, then why are you GREATLY PISSED because he/she is five minutes LATE?

Thank you

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