

# IF YOU'RE SO RICH, WHY AREN'T YOU SO SMART?

"coup de foudre" → a sudden intense and obsessive infatuation that strikes like lightning.

Nero Tulip  
John - The High Yield Trader

"flatness and tempered submission of employed life."

"slow thinkers and semislow thinkers who express themselves in full sentences."

1994 - Bond Market Crash

non-middle-class work ethic

quantitative financial products

proprietary trading

middle-class work ethic

**BLOW UP** losing more money than one expected, to the point of being thrown out of the business. ex. lawyer disbarred.

- ① those who merely work hard generally lose focus and intellectual energy.
- ② end up drowning in randomness.
- ③ focus on the noise rather than signal.

stop-loss, risk aversion.

Treasury Bonds

med-maturity

stock market is a form of investment scam

💡 Net worth as a function of cash earnings, not investment of his savings.

risk-conscious hard work, and discipline can lead someone to achieve a comfortable life with a very high probability.

Mild success : explained by skills and labour.

Wild success : attributed to variance.

"refined taste" ← new wealth  
rules of the pecking order.

"Intellectual contempt does not control personal envy."

Human

Psychology: Measuring wealth is always a relative metric rather than an absolute one.

💡 Can we judge the success of people by their raw performance and their personal wealth?  
sometimes - but not always.

Lucky fools do not bear the slightest suspicion that they may be lucky fools.

serotonin → can start a virtuous/vicious cycle.

randomness

emotions-~~reflected~~ charisma

leadership

↓  
difficult to conceal

evolutionary psychology

physical manifestations of one's performance in life can be used for signaling.

"on the average of lives he could have lived..."

take into account both the observed and unobserved possible outcomes.



# A BIZARRE ACCOUNTING METHOD

" One cannot judge a performance in any given field by the results, but by the costs of the alternative.

WAR  
POLITICS  
MEDICINE  
INVESTMENTS

quality of a decision cannot be solely judged by the outcome.

(alternative histories)

substitute courses of events.

ex. Russian Roulette - \$10M v/s death

$$P(1/6) = x, P(5/6) = \$10M$$

$$E[P(x)] = ?$$

1. 25 y-o playing 1/yr won't <sup>likely</sup> survive till 50 yrs.

2. 1000s of 25yr playing 1/yr result in small number of extremely rich <sup>survivors</sup> individuals and a large cemetery.

x = Event of pulling trigger. (equally likely revolver chamber)

$$P(x = \text{death}) = 1/6 \quad P(x = \text{life}) = 5/6$$

$$E[P(x)] = \frac{1}{6} \times (\text{death})_{\text{payoff}} + \frac{5}{6} \times (10M) = ?$$

$$P(x = \text{no death in 25 attempts}) = [P(x = \text{life})]^{25} = \left(\frac{5}{6}\right)^{25} \approx$$

Graham Greene novels

\$10M earned through Russian Roulette is qualitatively different than \$10M earned through dentistry. (say) (quantitatively same)

One's dependence on randomness is greater than the other.

Mathematically, Monte Carlo engine. → try to get the intuitive point/idea.

Probability is a qualitative subject.

The public observes the external signs of wealth without even having a glimpse at the source, the GENERATOR.

idea of alternative histories

philosophy → Leibniz' idea of possible worlds.

→ Saul Kripke possible world semantics

physics → Hugh Everett's many-world interpretation in QM.

economics → Kenneth Arrow Gerard Debreu state space method

Reality is far more vicious than Russian Roulette

→ ①  $P(x = \text{death}) \ll \frac{1}{6}$

false sense of security

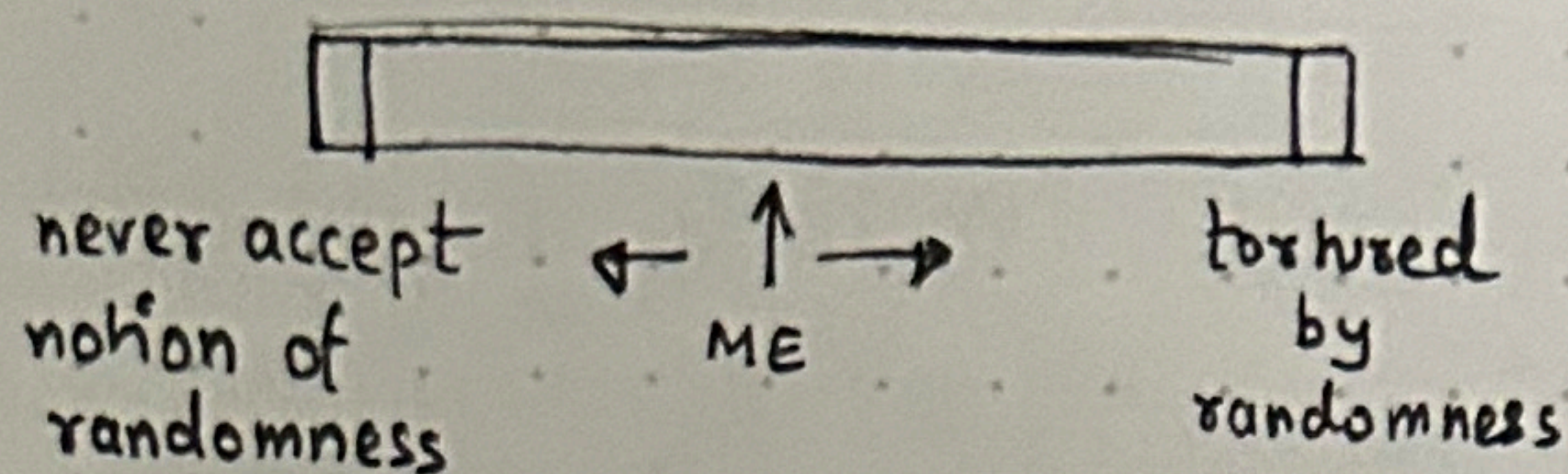
② P(x) is difficult to calculate due to lack of visibility - imperfect game. mistake "low-risk" Russian Roulette.

③ People are ingratitudous when warned about something abstract.



Kenny  
Jean-Fabrice  
Robert Shiller  
George Will

judging matters in a probabilistic manner



<< Beware the spendthrift "businesswise" person. >>  
"bottomline" people.

introspective professions.

we shouldn't take the notion of randomness to an extreme that it torments us.

chess skills on Résumés.

superficial knowledge of the rules of the game → "marketing expertise"

Heroes are heroes because they are heroic in behavior, → Iliad  
not because they won or lost.

forecast ↔ prophecy

- conflating these 2 is fooled-by-randomness.

media caters to our heavily warped common sense and biases

Our tendency to make/unmake prophets based on the fate of the Roulette wheel is symptomatic of our ingrained inability to cope with the complex structure of randomness prevailing in the modern world.

We are not wired to understand probability.

↳ do not confuse complex ideas that cannot be simplified into media-friendly statements as symptoms of a confused mind.

Risk detection, Risk avoidance are largely mediated in emotional brain, not rational brain.

sensationalism can divert empathy towards wrong causes.  
↳ grabbing attention via emotions fool us into an incorrect worldview.

Beware the confusion between correctness and intelligibility.

What sounds intelligent is suspicious.

Traders  
vs  
Risk Managers

EPIPHENOMENALISM - illusion of cause-and-effect.  
illusion of control (on risk) among others.



# A MATHEMATICAL MEDITATION ON HISTORY

## Monte Carlo mathematics

more a way of thinking  
rather than just compute.

- ① realism without shallowness
- ② intuition without excessive abstraction.

Monte Carlo methods consist of creating artificial histories:

sample path  $\approx$  invisible histories

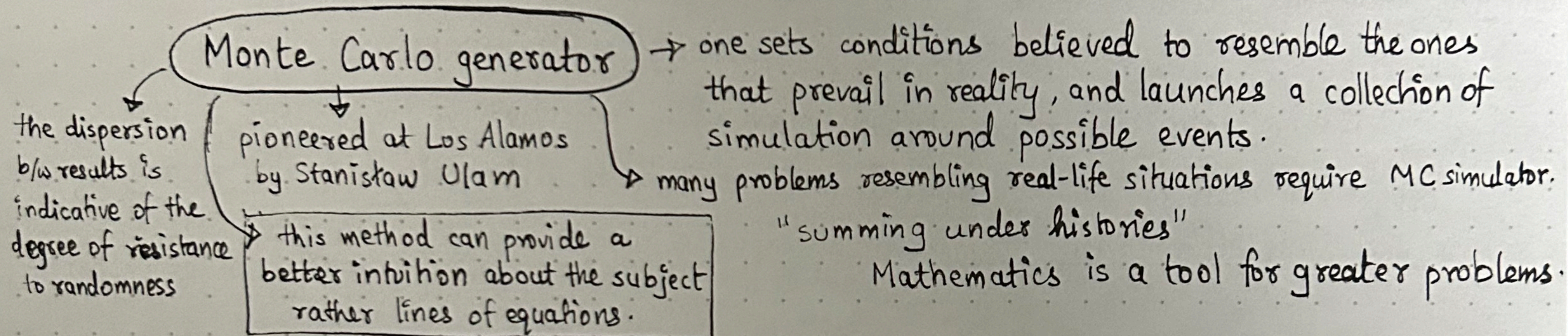
only 1 reality among many

random sample paths/random run  $\sim$  may not be equiprobable.

DEMIURGOS

ex: body temp measured hourly during fever  
valuation of a tech stock measured daily.

Stochastic Process — dynamics of events unfolding with the course of time.



In science, probability and information are treated in exactly the same manner.  
ex. Brownian Motion 1905.

"It is impossible to assess the quality of the knowledge we are gathering without allowing a share of randomness in the manner it is obtained..."

computers provide access to fast processors to run simulations.

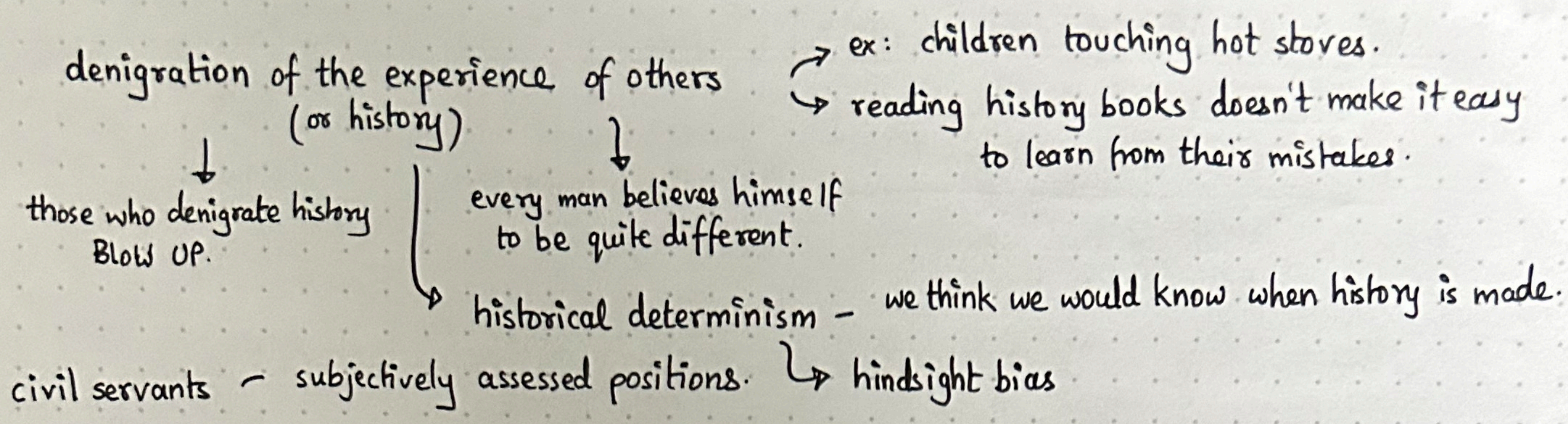
options trading w/ insurance allowed for long-term survival.  
(against blowup)

"Learning from history does not come naturally to us humans."

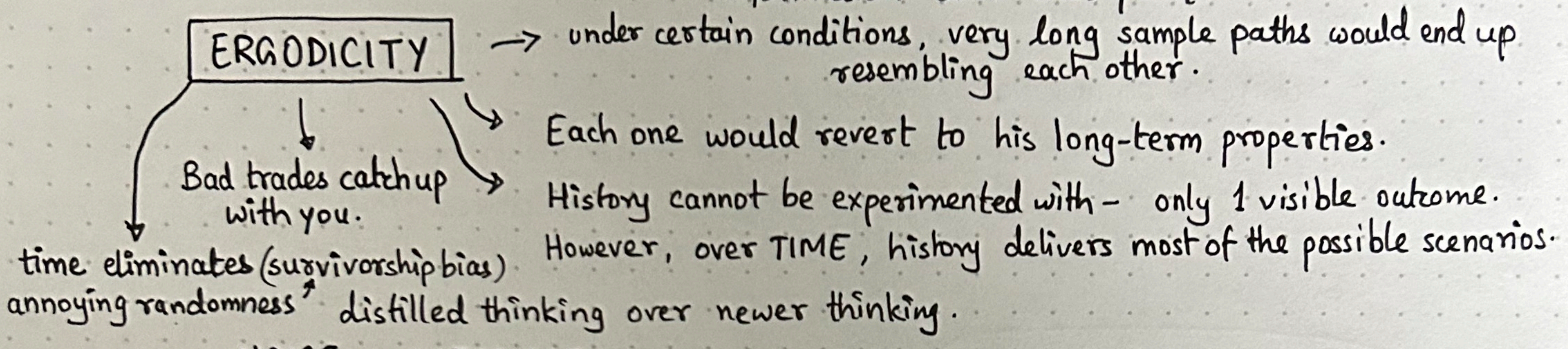
2 ways of learning from history

- ① from the past — reading the elders
- ② from the future — Monte Carlo sim.





"A mistake is not something to be determined after the fact, but in the light of the information until that point."



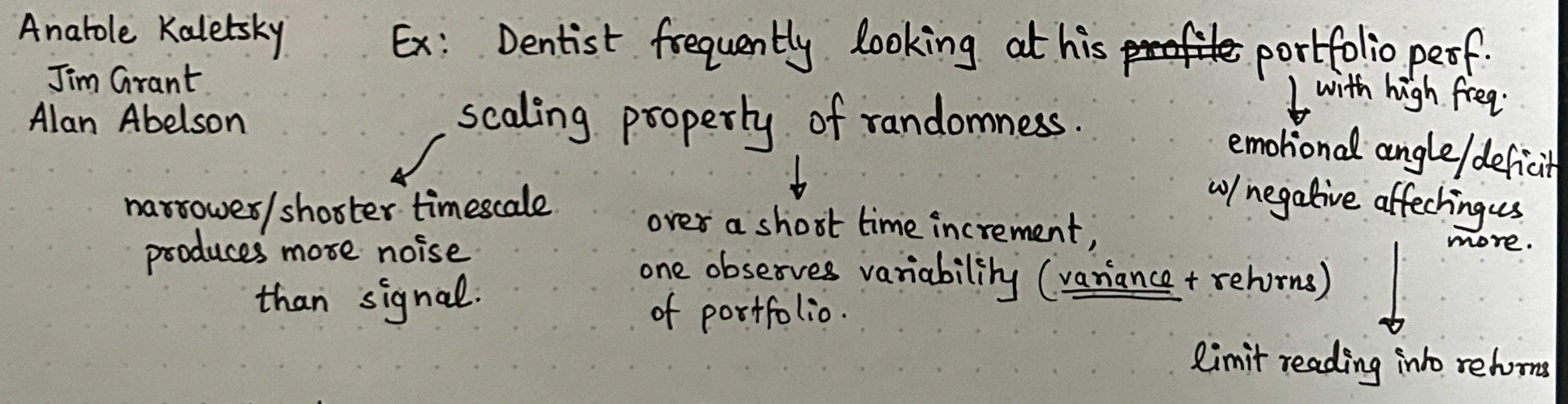
"new new thing" NOISE : INFORMATION :: JOURNALISM : HISTORY

For an idea, age is beauty → survival is indicative of its relative fitness.

Opportunity cost is minute compared to the toxicity of finding jewels in the garbage.

same with information. → minimal exposure to media as a guiding principle for someone involved in decision making under uncertainty.

Robert Shiller 1981 → markets are not as efficient as established by financial theory



Wealth does not count so much into one's wellbeing as the route one uses to get to it.



# RANDOMNESS, NONSENSE and THE SCIENTIFIC INTELLECTUAL

bringing scientific rigor to humanities. → deductive statement → verifiable.

Vienna Circle 1930 → HEGEL

scientific intellectual

literate scientist  
"thinker"

literary intellectual

literate nonscientist  
"babbler"

Reverse Turing Test:

"Pseudothinkers"

→ inductive statement → difficult to verify  
→ everything else is just rhetoric

"science is method and rigor."

"Rhetoric can be constructed randomly, but not genuine scientific knowledge."

→ fuzziness of his thought, they can be fooled by randomness.

A HUMAN can be said to be unintelligent if we can replicate his speech by a computer (unintelligent), and fool a human into believing that it was written by a human.

AI → intelligence b/c fools other humans most of the time. "recursive grammar"

"I like to be fooled by randomness." → literature

💡 "exquisite cadavers"

→ superstitions  
origin of aesthetic doesn't matter as long as it speaks to us.

"Our human nature dictates a need for péché mignon."

|| we are rationalising aesthetics, like religion  
|| and act irrationally in matters ruled by randomness, like portfolio.



# SURVIVAL OF THE LEAST-FIT : CAN EVOLUTION BE FOOLED BY RANDOMNESS

Carlos → Emerging Markets bonds      financial instruments issued by foreign govts. of developing nations.

1998 Russian Bond Default

"comparison to other traders"

dress sloppily

intellectual curious

Traders

accustomed to losing money

Marty O'Connell

firehouse effect

firemen with much downtime who talk to each other for too long come to agree on many things that an outside, impartial observer would find ludicrous.

cross-sectional problem

professions involving randomness

At a given time in the market, the most successful traders are likely to be those that are best fit to the latest cycle.

does precisely what other people do not do.

Economists

evaluated on how intelligent they sound.

not a scientific measure of their knowledge of reality.

Why do traders, who are no better than us, become successful?

SURVIVORSHIP BIAS. → certain favourable traits for a specific segment      no relation w/ competence.

one can make money totally out of randomness.

short-medium survival advantage over good traders.

Darwinian ideas are about reproductive fitness,

→ not to used in other domains.

not about survival. → applicable to long time scale

with randomness, evolution may be a diversion, possibly a regression.

Dragon King concept by Sornette

→ Regime Switch

situations when all the attributes of a system change to the point of its becoming unrecognizable to the observer.

owing rare events

we don't live in a world where things "converge" continuously toward betterment nor do things in life move continuously - they jump.



- X An animal is at max. fitness for the conditions of its time.
- ✓ On average, animals will be fit, but not every single one of them, and not at all times.  
some would be ~~lucky~~ individuals with lucky sample paths.  
ERGODICITY wipes out them over time.

People may survive owing to traits that momentarily fit the given structure of randomness.



# SKEWNESS and ASYMMETRY

Steven Jay Gould

"The Median is Not the Message."

💡 Do not confuse probability and expectation.

"bearish" and "bullish" are terms used by people who do not engage in practicing uncertainty.

It is not how likely an event is to happen that matters, it is how much is made when it happens that should be the consideration.

↳ Not the frequency of profits, rather the magnitudes.

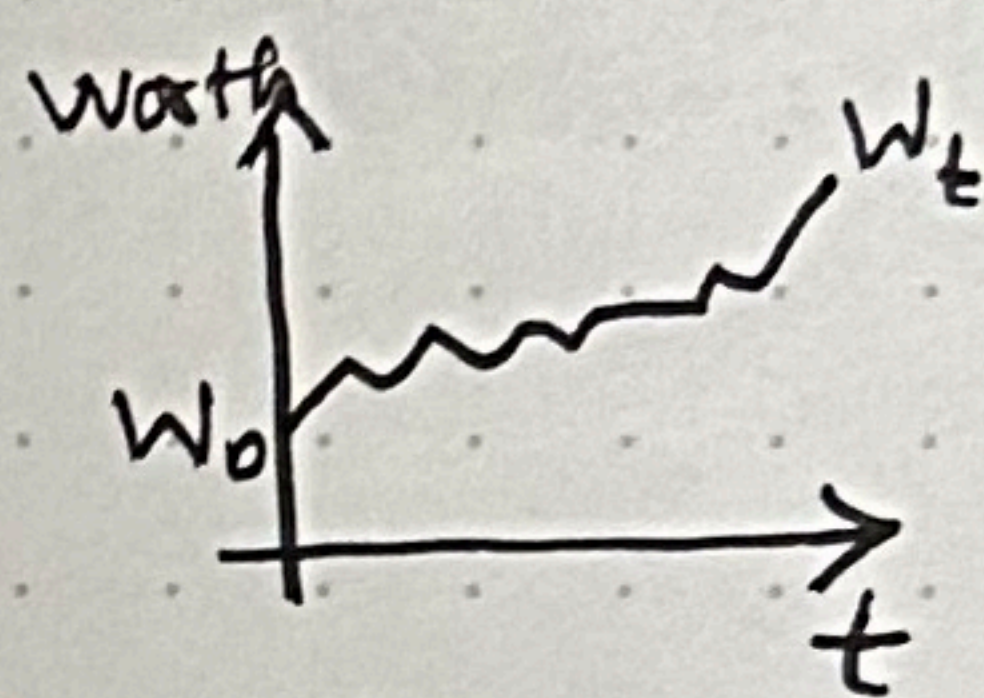
"skewed" bets rare events present a large payoff  
rare events are not fairly valued - undervalued.

people in finance tend to ignore outliers.

An event, although rare, that brings large consequences cannot just be "second-rate engineers" ignored.

If the world is deterministic, (non-random)

we can perform Time Series Analysis to predict the market.



↳ In a non-deterministic world, these analyses can sometimes mislead.

Currencies that exhibit the largest historical stability are the most prone to crashes. (1997 Asian Flu)

Is past an indication of future performance?

skeptical view → NO.

(noise-signal) Read from history in a broader scale instead of small time series.  
e.g. history teaches that things that never happened before do happen.

Rare-event Fallacy

peso problem in Mexico

→ Rare event = any behaviour where the adage "beware of calm waters" can hold.

↳ often associated with misunderstandings of the risks derived from a narrow interpretation of past time series.

preference for lower number of losses and high number of gains rather than optimizing the total performance.



Treasury Bond returns = benchmark of the minimum expected return on an investment.

crisis hunters

Most fixed-income financial instruments present rare events.

Why don't statisticians detect rare events?

concept: the more information you have, the more confident you are about the outcome.

problem: by how much? confidence level?

$$\text{confidence level} \propto \sqrt{n} \quad n = \text{no. of observations}$$

For  $n$  times increase in the sample size, our knowledge increases by  $\sqrt{n}$ .

fails us when distributions are not symmetric. AND/OR distributions change over time i.e. dynamic.

econometrics → an accumulation of research and gains in complexity will lead to naught if there is no firm ground beneath it.

Robert Lucas - Lucas critique = if people were rational then their rationality would cause them to figure out predictable patterns from the past and adapt, so that past information would be completely useless for predicting the future.

scientism - economics + equations ~ transfer of "rigor" from hard sciences to social sciences  
↓  
used for top-down "planning."



# THE PROBLEM OF INDUCTION

problem of induction - a problem of inference - especially affecting domains dealing w/ randomness - (finance) not hard sciences yet.

cygnus atratus

David Hume

Francis Bacon <sup>empiricism</sup>

ex: Turkey problem  
OR  
IMMORTALITY.

without a proper method, empirical observations can lead one astray.

epistemology = we need to add rigor in the gathering and interpretation.

Victor Niederhoffer

"pure empiricism implies necessarily being fooled by randomness."

"We can more safely use the data to reject than to confirm hypotheses."

↳ Not all swans are white. v/s All swans are white b/c all my observations say so.

## Ludic Fallacy

do not approach anything as a "game to win", except if it is a game.

Russian Roulette ~ selling PUT options.

work ethics  
↳ inefficient mediocrity

"skewness"

↳ stay away from 'competitive' natured-people as they tend to reduce the world to categories.

extreme, naive empiricism

+ competitiveness + absence of logical structure to inference = time-bomb fragile.

"impressions are quickly replaced."

"I have to discover things by myself."

↳ self-discoveries last

George Soros → Karl Popper → answer to the problem of induction

science is not to be taken as seriously as it sounds.

There are only 2 types of theories:

- ① Theories already falsified. (proven wrong)
- ② Theories that haven't been falsified yet.

① A theory cannot be verified. It can only be falsified.

Astrology v/s  
cannot be disproved

Newtonian Physics  
scientific b/c disproved.

② A theory that does not present a set of conditions under which it would be considered wrong (impossible to reject) is charlatanism.

"problem of demarcation."



Some type of knowledge does not increase with incremental information.

useful to remember  
when dealing w/  
uncertainty.

→ foundation of statistical inference.

"Naive Falsificationist"

- ① speculate in all my activities based on theories.
- ② no rare event should harm me.
- ③ all conceivable rare events should help me.
- ④ Science is mere speculation,  
mere formulation of conjecture.

open society

- ① no permanent truth is held to exist.
- ② allow counter-ideas to emerge.
- ③ open mind. analogy.

💡 Karl Popper did not execute his logical /rational ideas in personal life.

large machine to make  
inductive inferences

MEMORY

Causality is easier to commit to memory.  
Hence, we recall stories rather than  
trivia facts easily.

"The optimal strategy for humans is to believe in the existence of God."

Make allowance for events  
that would prove the conjecture  
wrong.

PASCAL'S  
WAGER

"STOP LOSS"

Use statistics and inductive methods to make aggressive bets.  
Not to manage risks and exposure.  
make sure that the costs of being wrong are limited.

Is King Croesus the happiest man of all?

"SOLON'S WARNING"

"it aint over until its over."

- ① that which comes with luck could be taken away rapidly by it.
- ② things that come with little help from luck are more resistant  
to randomness.



# TOO MANY MILLIONAIRES NEXT DOOR

"Chekovian Dilemmas" Marc, Janet

social treadmill  
effect

psychological treadmill  
effect

There is no solace to be found from reasoning.

Becoming rich is a purely selfish act, not a social one.

The virtue of capitalism - society can take advantage of people's greed rather than their benevolence.

survivorship  
bias

→ the mistake of ignoring the survivorship bias is chronic among professionals.

→ it implies that the highest performing realization will be the most visible, because the losers don't show up.

OPTIMISM

→ can be predictive of success or failure.

→ Optimistic people are overconfident about the odds.



# IT IS EASIER TO BUY and SELL THAN FRY AN EGG

How do we know somebody is competent in their domain?

What role does luck play in a "track record"? → physical world  
→ business world

survivorship bias,  
overfitting,  
regression to the mean

situations where the performance is exaggerated by the observer owing to a misperception of the importance of randomness.

placebo investors on Monte-Carlo engines → reality → we don't know the structure of randomness.  
we configure the structure of randomness.  
① Even a broken clock is right twice a day.  $P_{\text{success}} = 0.5$   
② Nobody has to be competent  $P_{\text{success}} < 0.5$

💡 A population entirely composed of bad managers will produce a small amount of great track records.  
owing to volatility, some bad managers will make money.  
↳ assists bad investment decisions.

↳ only the best are visible, not every body  
💡 The expectation of the maximum of track records depends more on the size of the initial sample than on the individual odds per manager.  
i.e. no. of managers with great track records in a given market depends far more on the no. of people who started in the investment business, rather on their ability to produce profits.

## Regression to the Mean

The larger the deviation from the norm, the larger the probability of it coming from luck rather than skills.

ergodicity → Over time, such large deviations revert to the mean.

NOTE: Not all deviations are attributable to luck.

💡 People believe they can figure out the properties of the distribution from the sample they witness.

survivorship bias = diff. b/w the avg. of distributions and the unconditional distribution of winners (max) and losers.  
e.g. 0.5 uniform distribution vs 0.03 (after 5 years) following power law distribution.



- ① Mysterious Letter Scam
- ② Adverse Selection Bias → high prob that an advertised investment's success is caused by randomness.
- ③ Reverse Survivors → even with high prob of success, one might not survive. (roulette/black swan)
- ④ Birthday Paradox →  $\frac{1}{365}$  prob of me sharing a birthday with somebody  
 $\frac{1}{2}$  prob of any 2 people sharing birthdays in a party of 23.

⑤ "It's a Small World!"

As a statistician, we need to test a specific, given relationship to look for correlation b/w the occurrence of a given event, rather than generic searches.

Randomness will pop-up "some" relationship.

⑥ Backtesting → fitting the rule on the data. (data snooping)

A random series will always present some detectable pattern.

The more I try, the more likely to find a rule that worked on past data.

⑦ Medicine → statistical as it is based on trial-and-error.

Comparative Luck: comparing 2 entities dependent on randomness. "outperformance."

alternative medicine

Linus Pauling - Vitamin C.

reference case problem

cancer clusters phenomenon.

16 squares darts

Real randomness does not look random.

A single random run is bound to exhibit some pattern.

scientific ~~research~~ → results that don't yield no result are not published

finding of absence - absence of finding.

A random series of runs need not exhibit a pattern to look random.

Market Makers ≈ dentists of finance

Don't mistake the distribution of the maximum of a variable with that of the variable itself.



# LOSER TAKES ALL - ON THE NONLINEARITIES OF LIFE

Life is unfair in a nonlinear way

- a small advantage in life can translate into a highly disproportionate payoff.
- a small help from randomness can lead to a bonanza.

## CHAOS THEORY

Population  
Weather

sandpile effect - nonlinear response

Tower of Babel → a small additional input caused disproportionate result w/ sand.

people patronize what other people like to do. ← more so because of current tech industry.

based on chance encounters

**path dependent outcome**

ex. Microsoft, QWERTY keyboard

against classical economic models.

→ results are deterministic (no uncertainty)  
→ skills/tech wins

Brownian Random Walks  
probability does not depend on past independent

→ Polya Process  
probability depends on past success

Independence is a requirement for working with the known math of probability.

What has gone wrong with the development of economics as a science?

economists took math seriously ~~for~~ as a substitute for rigor.  
but we don't have the correct math. for real world.

**complexity theory** — Monte Carlo simulations

Network Effect

Mandelbrot

↳ creation of clusters → clusters are unstable

↳ there's a wild type of randomness of which we will never know much, owing to their unstable properties.

↓  
difficult to predict → models cannot be accurate.



Our brain is not cut out for nonlinearities.

ex: practicing piano - barely any progress, and suddenly everything comes together.  
There are routes to success that are nonrandom, but very few people have the mental stamina to follow them.

Nonlinearity in random outcomes is sometimes used as a tool to break stalemates.

Buridan's Donkey

World's Bipolarity <  $\begin{cases} \text{succeed wildly} \\ \text{fail miserably.} \end{cases}$

It is better to have a handful of enthusiastic advocates than hordes of people appreciate your work.  
better to be loved by a dozen than liked by the hundreds.



# RANDOMNESS and OUR MIND: WE ARE PROBABILITY BLIND.

Given more than one possible outcomes, our brain can properly handle one and only one state at once.

The problem with thinking is that it causes you to develop illusions while wasting energy.

Nero Tulip cancer

Rules: value = save time and effort as it does not take nuance into account.  
it is not always efficient to understand things.

Kahneman  
Tversky

human beings are not endowed with rational probabilistic thinking and optimal behavior under uncertainty.  $\Rightarrow$  biases and heuristics.  
human beings are flawed, not just imperfect.

Normative  
Science

studies how things should be  
e.g. humans are rational.  
neo-classical economics  
microeconomics

Positive  
Science

studies actual observed behavior  
e.g. physics

We have internally conflicting rules - rules that are not transitive.

Heuristics are blind to reasoning.

Anchoring  
effect

availability: estimating the frequency of an event corresponding to the ease with which instances of the event can be recalled.

simulation: the ease of mentally undoing an event - playing the alternative scenario.

representativeness: gauging the prob. a person belongs to a particular social group by assessing how similar the person's characteristics are to the "typical" group member's.

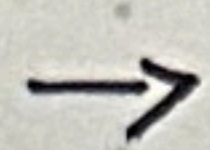
affect: the emotions elicited by events determine their probability in your mind.

System 1: heuristical      bullet chess

System 2: rational      classical chess



evolutionary psychology



sociobiologists

we our brains are optimised for prob. reasoning in a diff. env.

💡 we have evolved out of our natural habitat much faster than our genes.

① we donot think when making choices but use heuristics

② we make serious probabilistic mistakes in today's world.

① emotions affect one's thinking.  
↳ we feel emotions, then find reasoning.  
limbic → neocortex.

② emotions are lubricants of reason

encapsulation = we cannot interfere with a module's functioning as we are not aware of using it.

} much of "risk assessment" may be a result of emotions.

we need mathematical modelling when dealing with higher dimensions.

We are Option Blind.

↳ people undervalue options as they are unable to correctly mentally evaluate instruments that delivers an uncertain payoff, even w/ math.

↳ confuse the expected value and the most likely scenario.

long volatility = bleeding a little in the short run. make money in the long run.

x option selling.

$$P(D) = 0.001$$

$$P(FP) = 0.05$$

$$P(D|P) = \frac{P(D \cap P)}{P(P)}$$

$$= \frac{P(D \cap FP) + P(D \cap \bar{FP})}{P(FP) + P(\bar{FP})}$$

$$= \frac{0 + 0.001}{0.05 + 0.001}$$

$$= \frac{0.001}{0.051} \approx 2\%$$

People overvalue their knowledge, and underestimate the probability of their being wrong.

Journalists

most communicative.  
not necessarily the most knowledgeable.

mixing up absence of evidence and evidence of absence.

Max (avg(x<sub>1</sub>, x<sub>2</sub>, ..., x<sub>n</sub>)) less volatile than Avg (Max(x<sub>1</sub>, x<sub>2</sub>, ..., x<sub>n</sub>)).

Statistical Significance

"It is not the estimate/forecast that matters, so much as the degree of confidence with the opinion." variance matters!

Causality

difficult to isolate a single cause when there are plenty — multivariate analysis



## LIVING with RANDOMITIS

Odysseus

epiphany →

I'm not intelligent enough, nor strong enough,  
to even try to fight my emotions.

I need my emotions to formulate my ideas,  
and get the energy to execute them.

conditional information →

Unless the source of the statement has  
extremely high qualifications,

the statement will be more revealing of  
the author than the information intended by him.

Wittgenstein's Ruler

↓  
The emotional system does not understand it

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## GAMBLER'S TICKS and PIGEONS IN A BOX

superstitions ↔ gambler's ticks

\* our bias is immediately to establish a causal link.

\* we are not made to view things as independent from each other.

Skinner's Pigeon Experiment → randomly feeding pigeons developed rituals.

Emotions cannot be reasoned with. → Trick ① \$100,000 return → 2% profitable.  
\$1M return → 99% profitable.

💡 "We need to accept the fact that we are mere animals in need of lower forms of tricks, not lectures." ② do not look at performance report too often.

→ ex. cigarette smokers.  
The problem is execution, not the absence of knowledge.



# CARNEADES COMES TO ROME: ON PROBABILITY and SKEPTICISM

Probability is not about odds,  
but in the belief of an alternative outcome, cause or motive.

Carneades - Cato.  
(skeptics) → Cicero

Korax

Romans did not have a religion per se.

→ we are supposed to be faithful to our  
→ otherwise, we become a traitor<sup>opinions</sup>.

Modern times → self-contradiction is made culturally to be shameful.

Monsieur de Norpois' - In Search of Time Lost  
by Marcel Proust.

Nigel Babbage

George Soros

Jean-Manuel Rozan

Path dependence → past actions following suit.

↳ beliefs: sequence of ideas such that first one dominates.  
↳ for evolutionary reasons

endowment  
effect

"married to your position" ↳ otherwise, one becomes a psychopath.  
(rational)

1998 LTCM

"start every meeting at my boutique by convincing everyone that we are a bunch of idiots who know nothing, and are mistake-prone, but happen to be endowed with the rare privilege of knowing it."

Attribution Bias: You attribute your successes to skills, but your failures to randomness.  
(self-esteem)

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## BACCHUS ABANDONS ANTONY

elect to control one's destiny  
in the face of a random outcome

**STOICISM**

Randomness will have the last word.

**DIGNITY**

→ execution of protocol of behavior that does not depend on immediate circumstance.

Cavafy's poem "Apoleipein o Theos Antonion"

THE GOD ABANDONS ANTONY

↳ emotions are natural.

Exhibit sapere vivere in all circumstances. AND OTHER UNSOLICITED ADVICE.

Lady Fortuna has no control over your behavior.



# AFTERTHOUGHTS IN THE SHOWER

## ① INVERSE SKILLS PROBLEM

The higher up the corporate ladder, the lower the evidence of contribution

skills that are visible

clearly defined, and observable.

ergodicity

Law of Large Numbers.

skills that are not visible

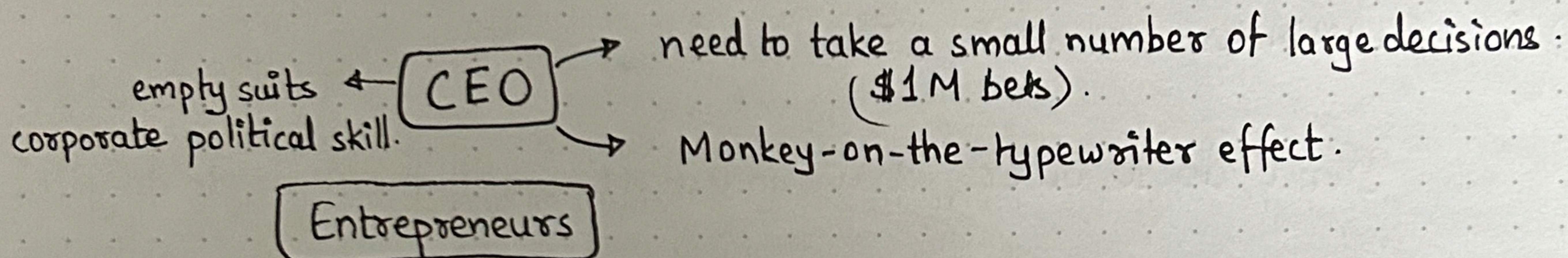
randomness-laden professions

repetition is key for the revelation of skills.  
or any long-term properties if they exist.

lower-ranked employees — judged on process AND results

process converges to results.

top management — judged only on results regardless of process.



executives have almost nothing to lose; shareholders bear the risk.  
(no skin in the game)

↓  
not all leaders are heroic. → same goes for civil servants.

↳ we continue to worship those who won battles, and despise those who lost, no matter the reason.

## ② ADDITIONAL BENEFITS OF RANDOMNESS

Ex: Buridan's Donkey

Ex: Commuting

💡 what is random, and what we do not know is functionally the same.

Some degree of unpredictability (or lack of knowledge) can be beneficial to our defective species.

A slightly random schedule prevents us from optimizing and being efficient particularly in wrong things.

satisficer v/s maximizer.



satisficer

maximizer

Are ~~do~~ optimizers unhappy because they are constantly seeking a better deal? OR  
if unhappy people tend to optimize out of their misery?

We are not made for clear-cut, well-delineated schedules.  
e.g. train instead of plane.  
no alarm clock.

You can decide whether to be relatively poor, but free of your time,  
or rich but as dependent as a slave.

A mild degree of unpredictability in your behaviour can help you to  
protect yourself in situations of conflict.

↳ Unpredictability is a strong deterrent.

### ③ STANDING ON ONE LEG

Don't do to others what you don't want them to do to you;

We favor the visible, the embedded, the personal, the narrated,  
and the tangible; we scorn the abstract.