

LEARN TO HARVEST UNCERTAINTY

Nassim Nicholas Taleb

Origin



Retirement

$$\begin{aligned}
 & V_t + \frac{1}{2} \sigma^2 V_{xx} \\
 & + \rho b g V_{rx} + \frac{g^2}{2} V_{xx} \\
 & + (a - \lambda b) V_r \\
 & + (f - \nu g) V_\lambda - rV = 0
 \end{aligned}$$

1) $V = e^{A + Br + C\lambda}$?

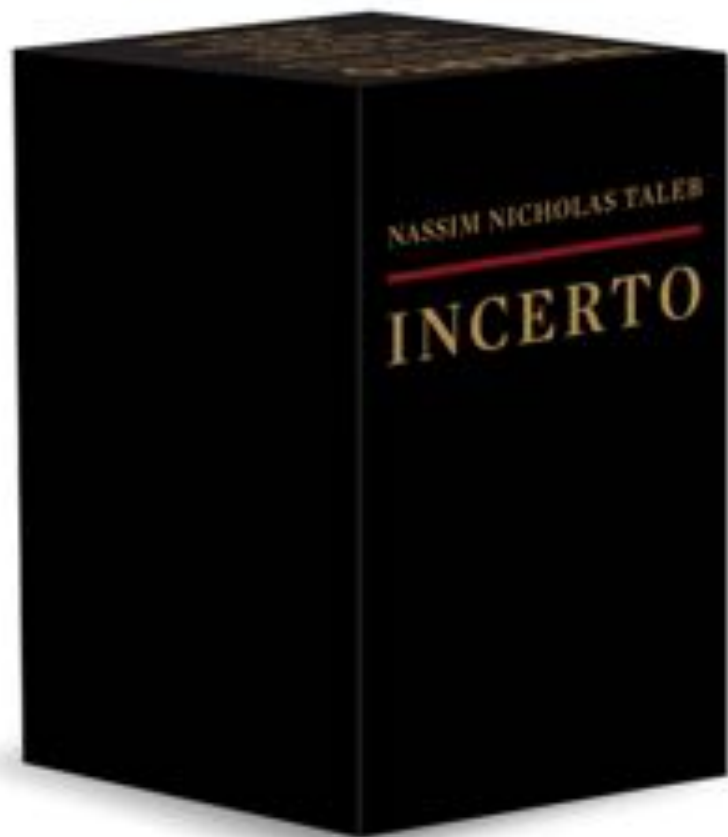
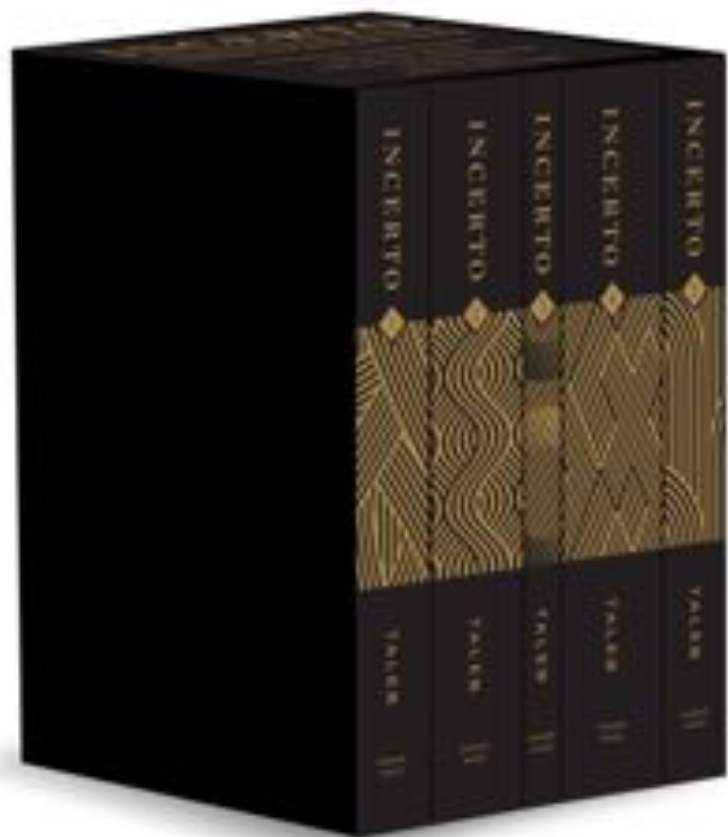
$$(A + Br + C\lambda) + \frac{1}{2} B^2 \sigma^2 + \rho b g B C + \frac{g^2}{2} C^2 + (a - \lambda b) B + (f - \nu g) C - r$$

$$\begin{aligned}
 ds &= \mu s dt + \sigma_1 \\
 d(\ln \sigma_1) &= a_1 + \ln \sigma_2 \\
 d(\ln \sigma_2) &= a_2 + \ln \sigma_1
 \end{aligned}$$

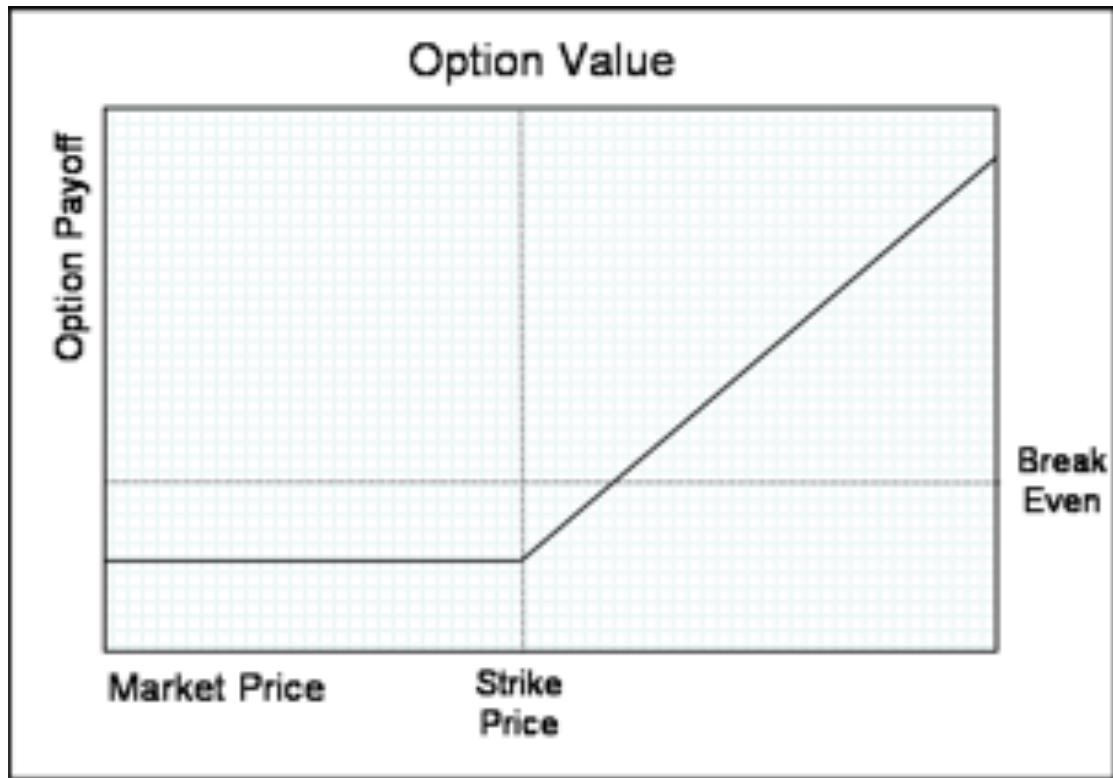


$$\int e^{-\int r dt} dt \quad \text{Ma}$$

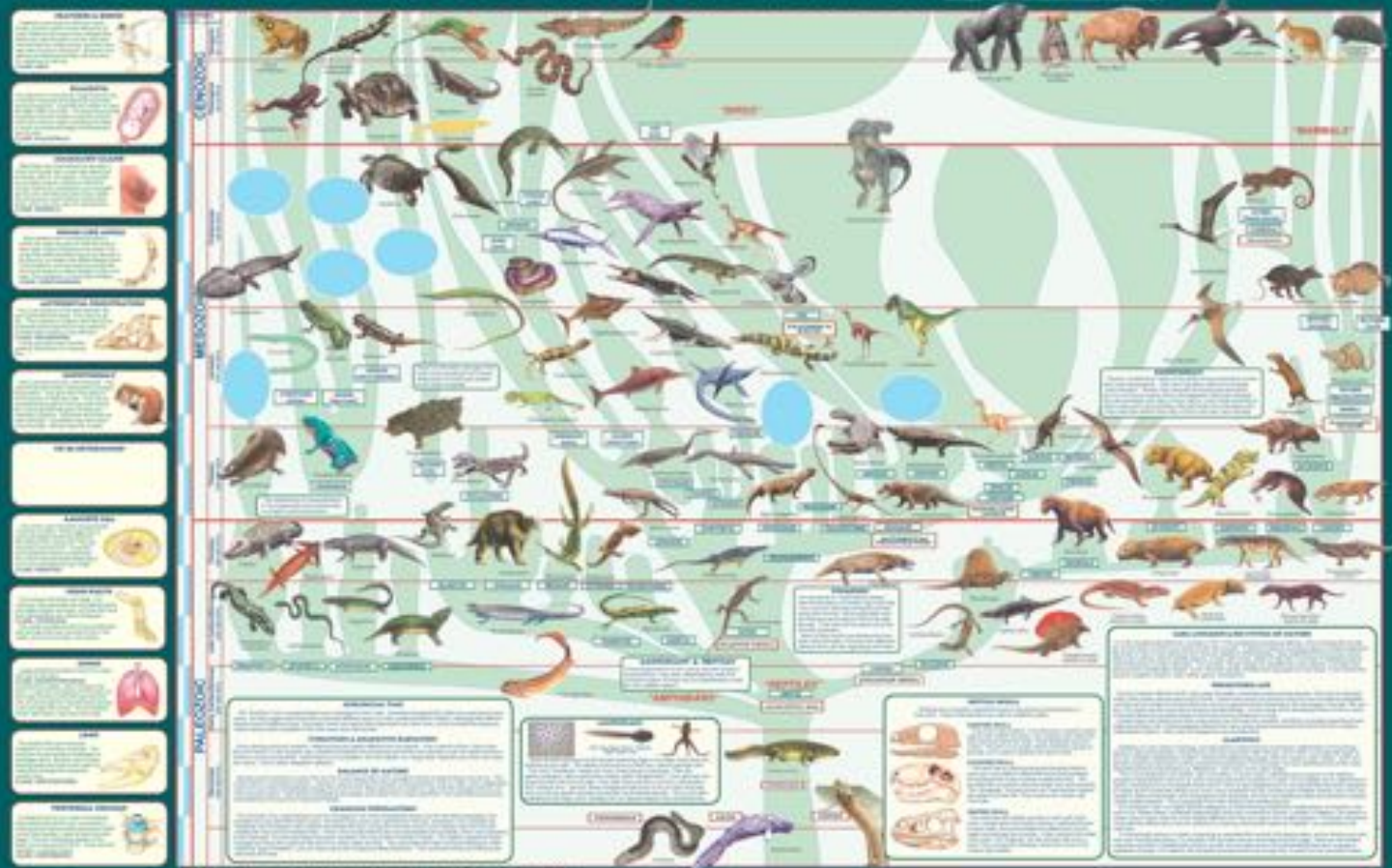
x2
 on door
 (x) dt
 $+ \nu r dx_1$
 $\left(1 + \frac{1}{2} \ln \left(\frac{1 + \mu a - 1}{\lambda_1}\right)\right)$
 $\sqrt{p - \lambda g} dx_2$



Optionality



MILESTONES OF VERTEBRATE EVOLUTION





Sumer 2500 BC



6000
years

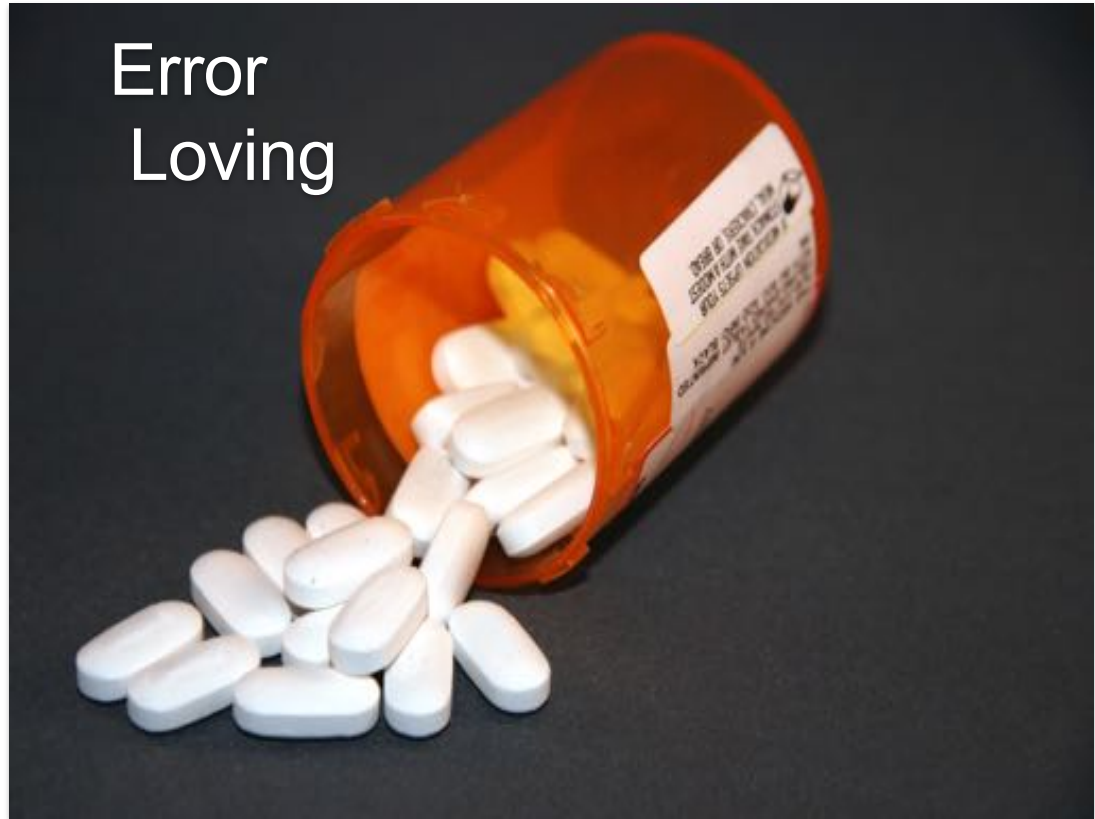






?

Error
Loving





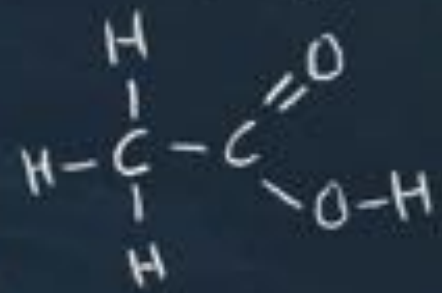
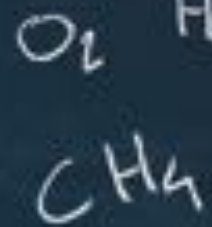
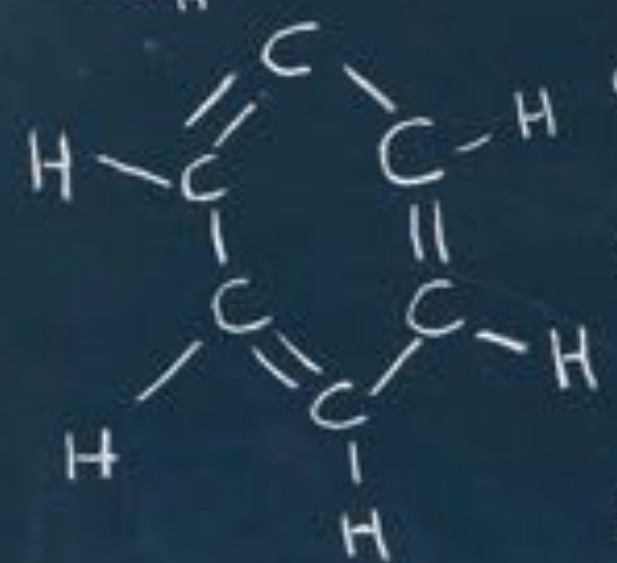
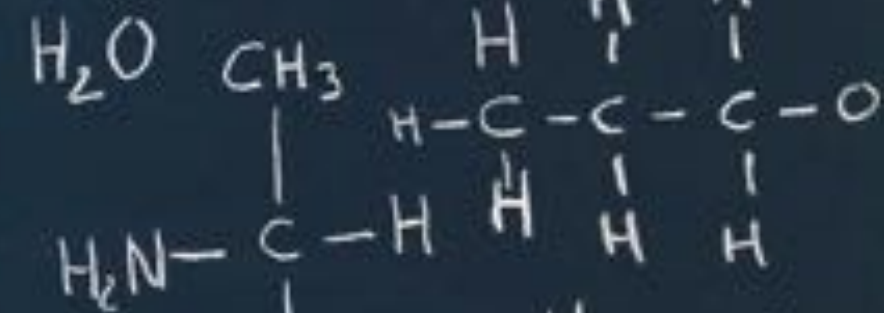
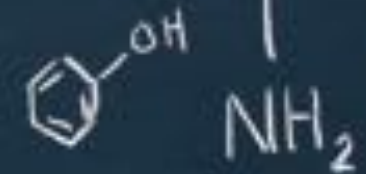
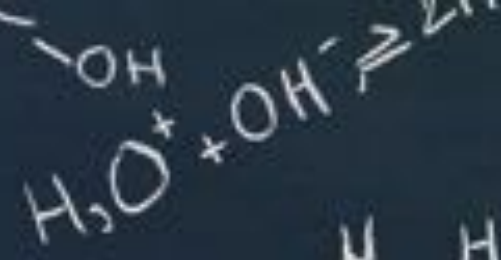
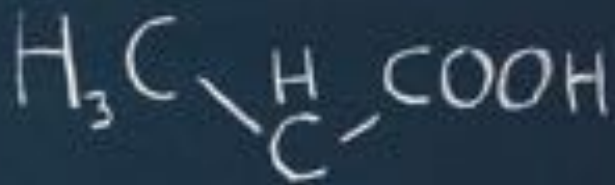
Myth (Harvard Illusion)

Science → Technology → Business

Lecturing Birds How to Fly



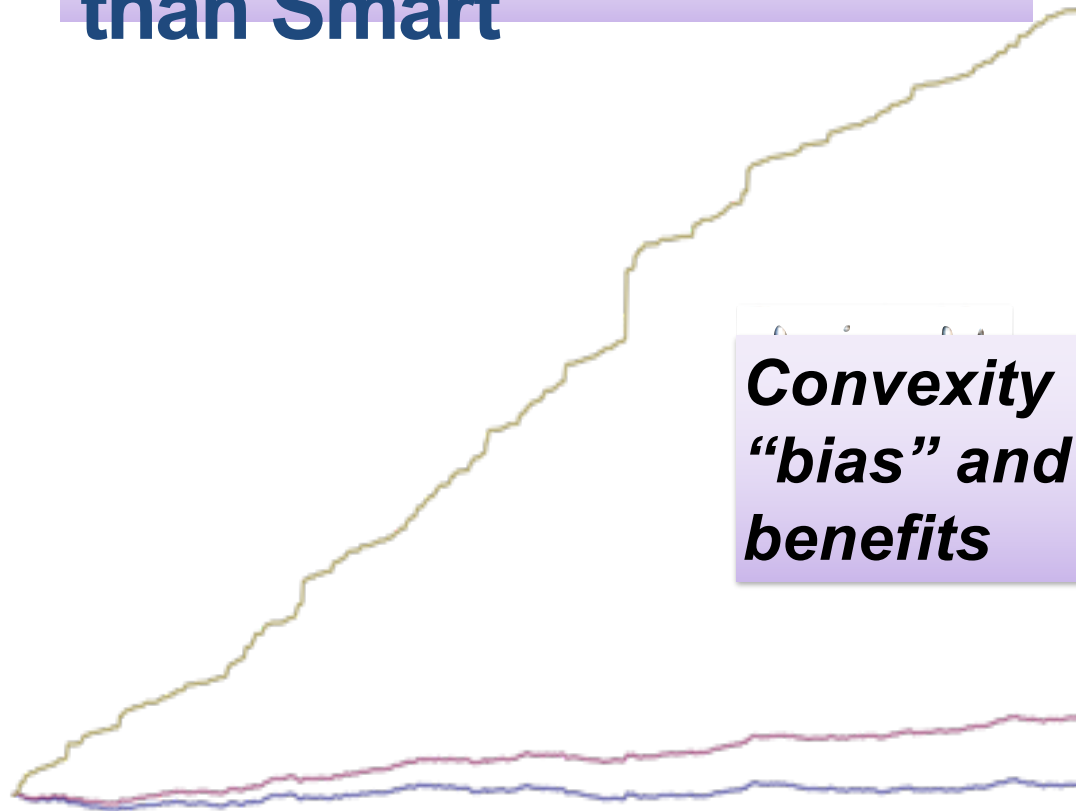






The
Philosopher's
Stone

I'd Rather be Antifragile than Smart



**TABLE 5 • THE LECTURING-BIRDS-HOW-TO-FLY EFFECT ACROSS DOMAINS:
EXAMPLE OF MISATTRIBUTION OF RESULTS IN TEXTBOOKS**

<i>FIELD</i>	<i>ORIGINATION AND DEVELOPMENT AS MARKETED BY BIRDS LECTURERS</i>	<i>REAL ORIGINATION AND DEVELOPMENT</i>
Jet Engine	Physicists (busted by Scranton)	Tinkering engineers with no understanding of "why it works"
Architecture	Euclidian geometry, mathematics (busted by Baujouan)	Heuristics and secret recipes (guilds)
Cybernetics	Norbert Wiener (busted by Mindell)	Programmers "wiki-style"
Derivatives formulas	Black, Scholes, and Fragilista Merton (busted by Haug and Taleb)	Traders and practitioners, Regnauld, Bachelier, Thorp
Medicine	Biological understanding (busted by a long series of doctors)	Luck, trial and error, side effects of other medicines, or sometimes poisoning (mustard gas)
Industrial Revolution	Growth in knowledge, Scientific Revolution (busted by Kealey)	Adventurers, hobbyists
Technology	Formal science	Technology, businesses





28,000 civil servants!



