

Fooled By Randomness

## CONTENTS

Title Page

Dedication

Preface

Acknowledgments for the Updated Second Edition

Chapter Summaries

Prologue

### PART I: SOLON'S WARNING

•

Skewness, Asymmetry, Induction

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

### NERO TULIP

Hit by Lightning

Temporary Sanity

Modus Operandi

No Work Ethics

There Are Always Secrets

### JOHN THE HIGH-YIELD TRADER

An Overpaid Hick

### THE RED-HOT SUMMER

Serotonin and Randomness

YOUR DENTIST IS RICH, VERY RICH

Two A BIZARRE ACCOUNTING METHOD

### ALTERNATIVE HISTORY

Russian Roulette

Possible Worlds

An Even More Vicious Roulette

SMOOTH PEER RELATIONS

Salvation via Aeroflot

Solon Visits Regine's Nightclub

GEORGE WILL IS NO SOLON: ON COUNTERINTUITIVE TRUTHS

Humiliated in Debates

A Different Kind of Earthquake

Proverbs Galore

Risk Managers

Epiphenomena

Three                    A MATHEMATICAL MEDITATION ON HISTORY

Europlayboy Mathematics

The Tools

Monte Carlo Mathematics

FUN IN MY ATTIC

Making History

Zorglubs Crowding the Attic

Denigration of History

The Stove Is Hot

Skills in Predicting Past History

My Solon

DISTILLED THINKING ON YOUR PALMPILOT

Breaking News

Shiller Redux

Gerontocracy

PHILOSTRATUS IN MONTE CARLO : ON THE DIFFERENCE BETWEEN NOISE AND  
INFORMATION

Four                                      RANDOMNESS, NONSENSE, AND THE SCIENTIFIC INTELLECTUAL

RANDOMNESS AND THE VERB

Reverse Turing Test

The Father of All Pseudothinkers

MONTE CARLO POETRY

Five                                      SURVIVAL OF THE LEAST FIT—CAN EVOLUTION BE FOOLED BY  
RANDOMNESS?

CARLOS THE EMERGING-MARKETS WIZARD

The Good Years

Averaging Down

Lines in the Sand

JOHN THE HIGH-YIELD TRADER

The Quant Who Knew Computers and Equations

The Traits They Shared

A REVIEW OF MARKET FOOLS OF RANDOMNESS CONSTANTS

NAIVE EVOLUTIONARY THEORIES

Can Evolution Be Fooled by Randomness?

Six    SKEWNESS AND ASYMMETRY

THE MEDIAN IS NOT THE MESSAGE

BULL AND BEAR ZOOLOGY

An Arrogant Twenty-nine-year-old Son

Rare Events

Symmetry and Science

ALMOST EVERYBODY IS ABOVE AVERAGE

THE RARE-EVENT FALLACY

The Mother of All Deceptions

Why Don't Statisticians Detect Rare Events?

A Mischievous Child Replaces the Black Balls

Seven                      THE PROBLEM OF INDUCTION

FROM BACON TO HUME

Cygnus Atratus

Niederhoffer

SIR KARL'S PROMOTING AGENT

Location, Location

Popper's Answer

Open Society

Nobody Is Perfect

Induction and Memory

Pascal's Wager

THANK YOU, SOLON

PART II: MONKEYS ON TYPEWRITERS

- 

Survivorship and Other Biases

IT DEPENDS ON THE NUMBER OF MONKEYS

VICIOUS REAL LIFE

THIS SECTION

Eight                      TOO MANY MILLIONAIRES NEXT DOOR

HOW TO STOP THE STING OF FAILURE

Somewhat Happy

Too Much Work

You're a Failure

DOUBLE SURVIVORSHIP BIASES

More Experts

Visibility Winners

It's a Bull Market

A GURU'S OPINION

Nine IT IS EASIER TO BUY AND SELL THAN FRY AN EGG

FOOLED BY NUMBERS

Placebo Investors

Nobody Has to Be Competent

Regression to the Mean

Ergodicity

LIFE IS COINCIDENTAL

The Mysterious Letter

An Interrupted Tennis Game

Reverse Survivors

The Birthday Paradox

It's a Small World!

Data Mining, Statistics, and Charlatanism

The Best Book I Have Ever Read!

The Backtester

A More Unsettling Extension

The Earnings Season: Fooled by the Results

COMPARATIVE LUCK

Cancer Cures

Professor Pearson Goes to Monte Carlo (Literally): Randomness Does Not Look Random!

The Dog That Did Not Bark: On Biases in Scientific Knowledge

I HAVE NO CONCLUSION

Ten LOSER TAKES ALL—ON THE NONLINEARITIES OF LIFE

THE SANDPILE EFFECT

Enter Randomness

Learning to Type

MATHEMATICS INSIDE AND OUTSIDE THE REAL WORLD

The Science of Networks

Our Brain

Buridan's Donkey or the Good Side of Randomness

WHEN IT RAINS, IT POURS

Eleven

RANDOMNESS AND OUR MIND: WE ARE PROBABILITY BLIND

PARIS OR THE BAHAMAS?

SOME ARCHITECTURAL CONSIDERATIONS

BEWARE THE PHILOSOPHER BUREAUCRAT

Satisficing

FLAWED, NOT JUST IMPERFECT

Kahneman and Tversky

WHERE IS NAPOLEON WHEN WE NEED HIM?

"I'm As Good As My Last Trade" and Other Heuristics

Degree in a Fortune Cookie

Two Systems of Reasoning

WHY WE DON'T MARRY THE FIRST DATE

Our Natural Habitat

Fast and Frugal

Neurobiologists Too

Kafka in a Courtroom

An Absurd World

Examples of Biases in Understanding Probability

We Are Option Blind

## PROBABILITIES AND THE MEDIA (MORE JOURNALISTS)

CNBC at Lunchtime

You Should Be Dead by Now

The Bloomberg Explanations

Filtering Methods

We Do Not Understand Confidence Levels

An Admission

## PART III: WAX IN MY EARS

- 

Living with Randomitis

I AM NOT SO INTELLIGENT

WITTGENSTEIN'S RULER

THE ODYSSEAN MUTE COMMAND

Twelve

GAMBLERS' TICKS AND PIGEONS IN A BOX

TAXI-CAB ENGLISH AND CAUSALITY

THE SKINNER PIGEON EXPERIMENT

PHILOSTRATUS REDUX

Thirteen

CARNEADES COMES TO ROME: ON PROBABILITY AND

SKEPTICISM

CARNEADES COMES TO ROME

Probability, the Child of Skepticism

MONSIEUR DE NORPOIS' OPINIONS

Path Dependence of Beliefs

COMPUTING INSTEAD OF THINKING

FROM FUNERAL TO FUNERAL

Fourteen

BACCHUS ABANDONS ANTONY

NOTES ON JACKIE O. 'S FUNERAL

## RANDOMNESS AND PERSONAL ELEGANCE

Epilogue SOLON TOLD YOU SO

Beware the London Traffic Jams

Postscript THREE AFTERTHOUGHTS IN THE SHOWER

FIRST THOUGHT: THE INVERSE SKILLS PROBLEM

SECOND THOUGHT: ON SOME ADDITIONAL BENEFITS OF RANDOMNESS

Uncertainty and Happiness

The Scrambling of Messages

THIRD THOUGHT: STANDING ON ONE LEG

Acknowledgments for the First Edition

A Trip to the Library: Notes and Reading Recommendations

Notes

References

About the Author

Also by Nassim Nicholas Taleb

Copyright