

Investing: The Last Liberal Art



Gabelli Center for Global Investment Analysis

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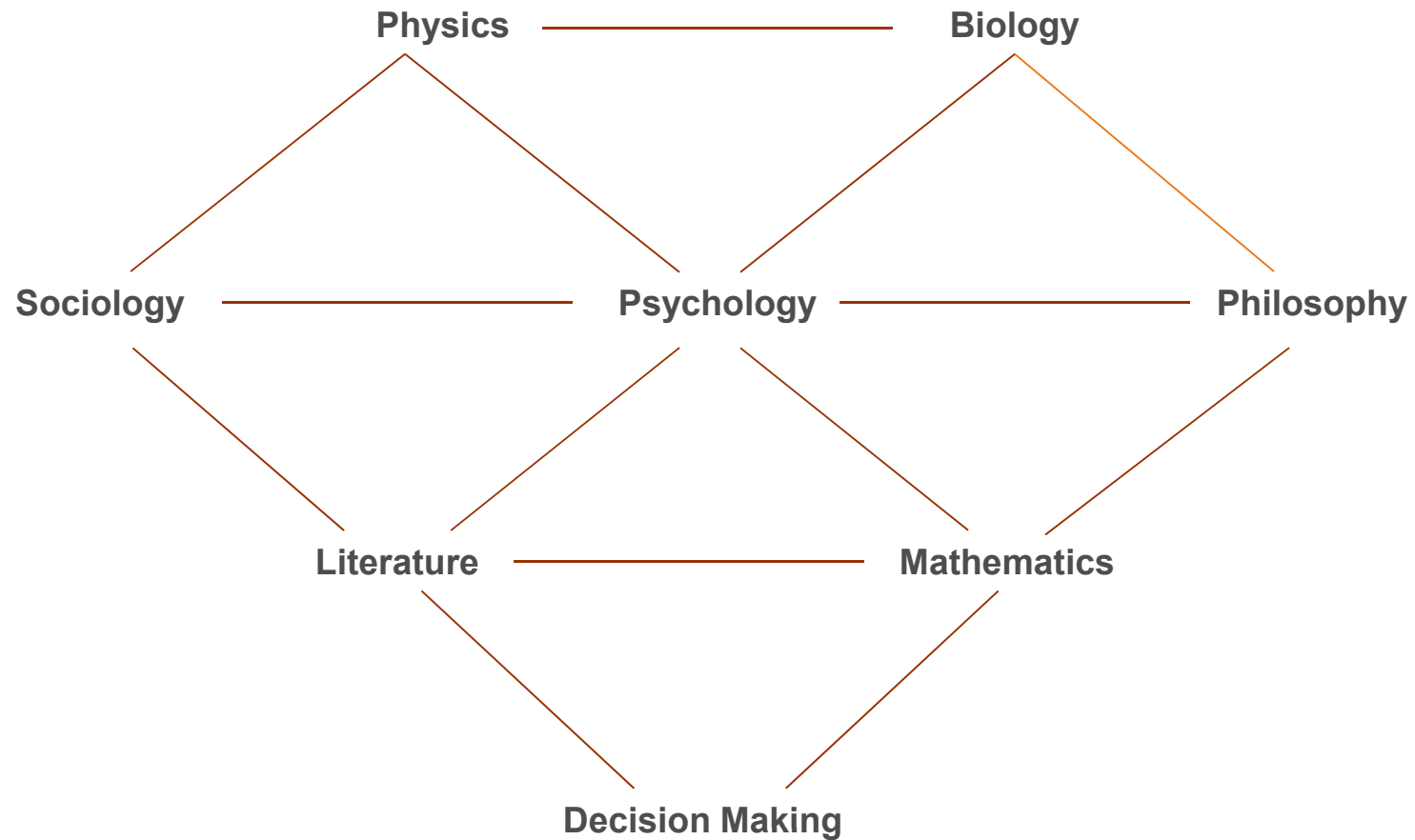
“If you want to be a good thinker, you must develop a mind that can jump jurisdictional boundaries.”

- Charlie Munger



Source: Corbis Images

The Liberal Arts of Investing



Isaac Newton



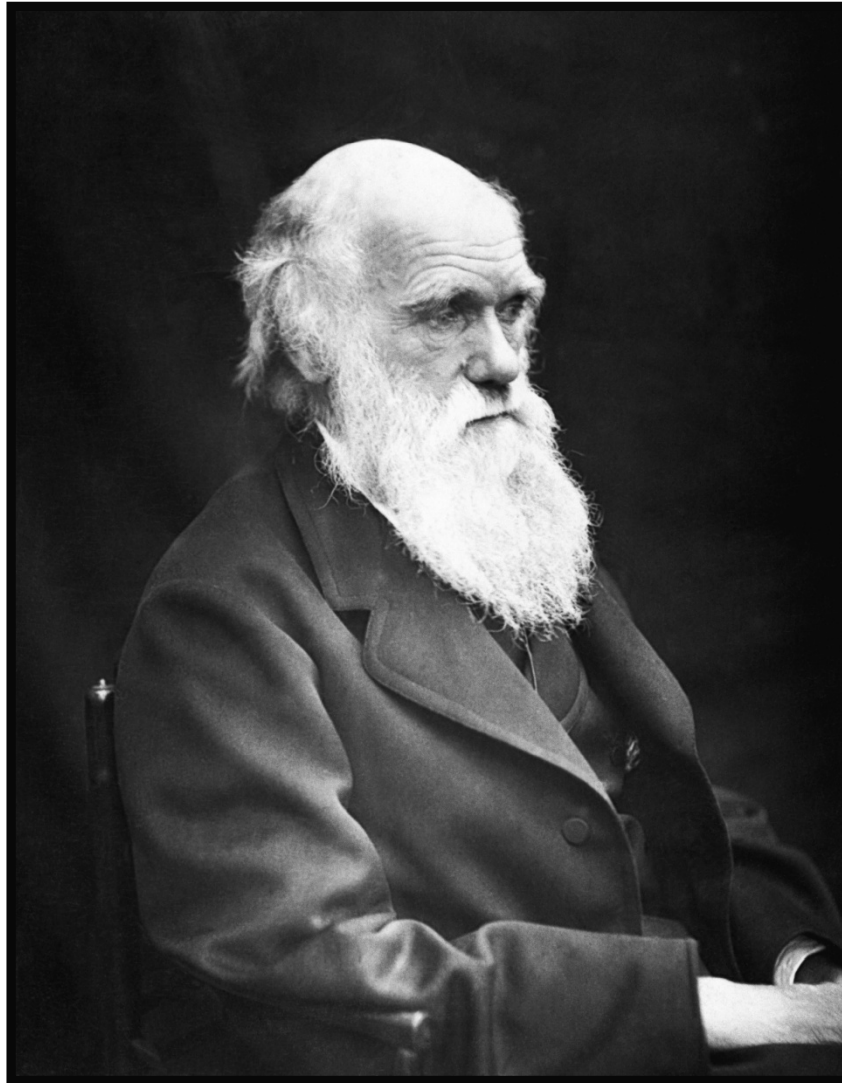
Source: Corbis Images

“The real trouble with this world of ours is not that it is an unreasonable world, or even that it is a reasonable one. The commonest kind of trouble is that it is nearly reasonable, but not quite.”

“Life is not an illogicality; yet it is a trap for logicians. It looks just a little more mathematical and regular than it is; its exactitude is obvious, but its inexactitude is hidden; its wildness lies in wait.”

- G. K. Chesterton

Charles Darwin

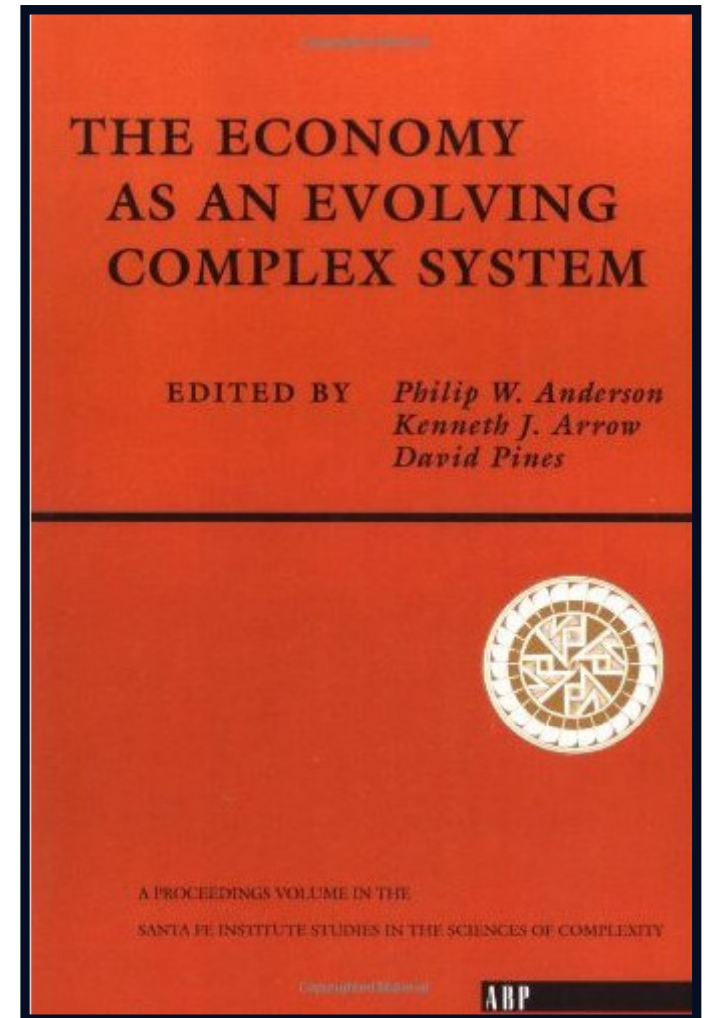
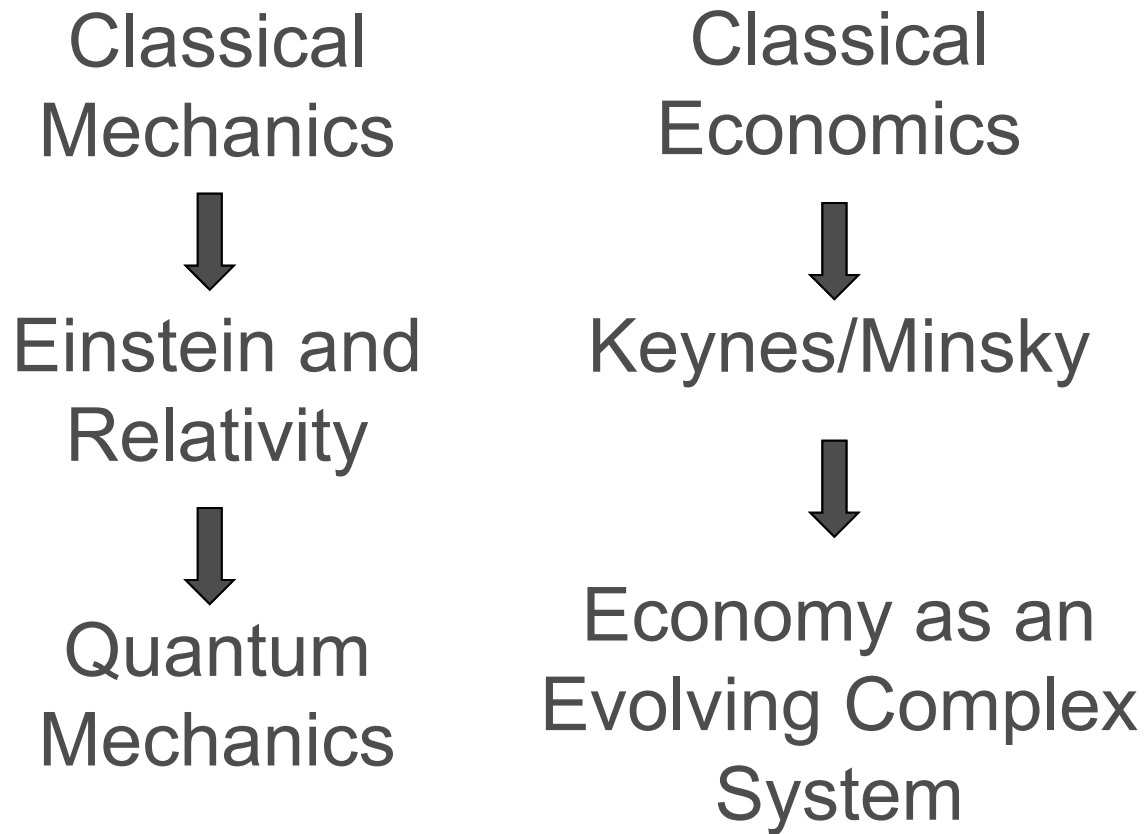


Source: Corbis Images

“The Mecca of the economist lies in economic biology rather than in economic dynamics. But biological conceptions are more complex than those of mechanics; [we] must therefore give a relatively large place to mechanical analogies.”

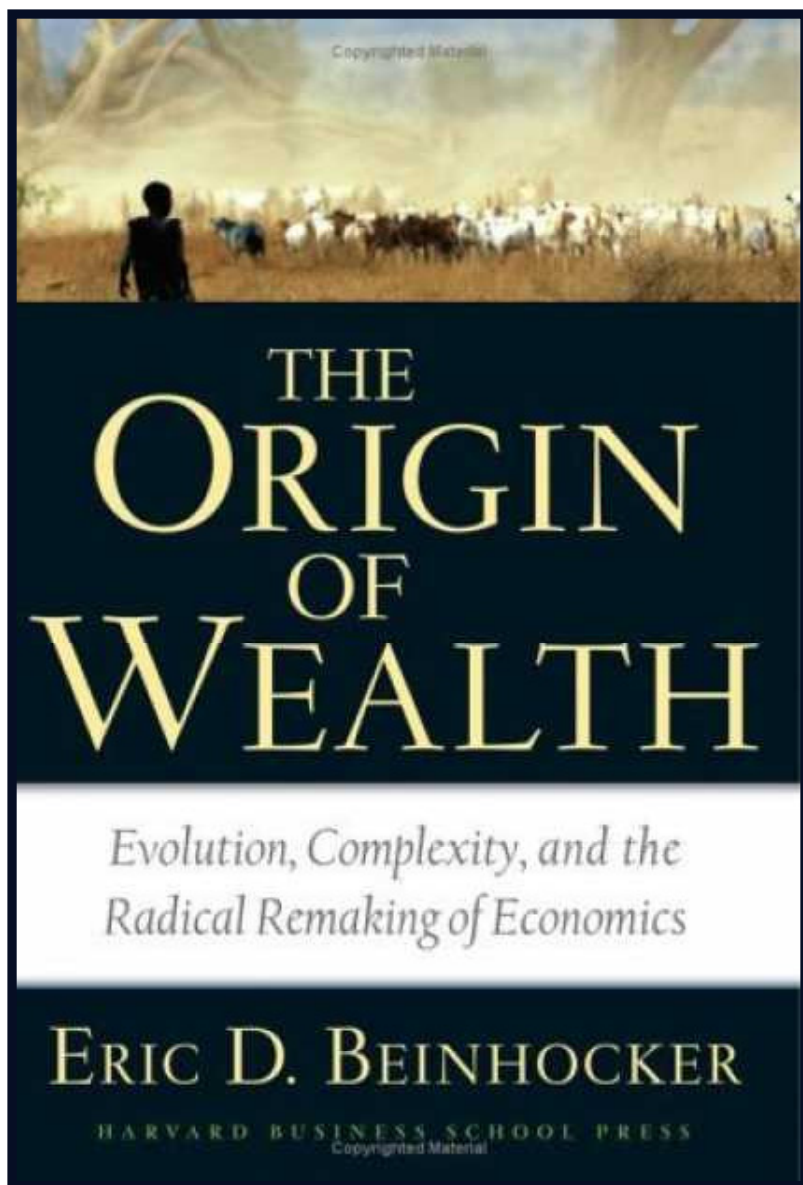
*- Alfred Marshall
Principles of Economics
Eighth Edition (1920, p.xii)*

From Physics to Econophysics



BIOLOGY: The Origin of a New Species

- Markets are inherently complex – more akin to biology than physics
- The system learns and adapts
- Non-Equilibrium System
 - Small Effects – Large Consequences
 - Large Effects – Small Consequences
- No stable mean



“A door like this has cracked open five or six times since we got up on our hind legs. It's the best possible time of being alive, when almost everything you thought you knew is wrong.”

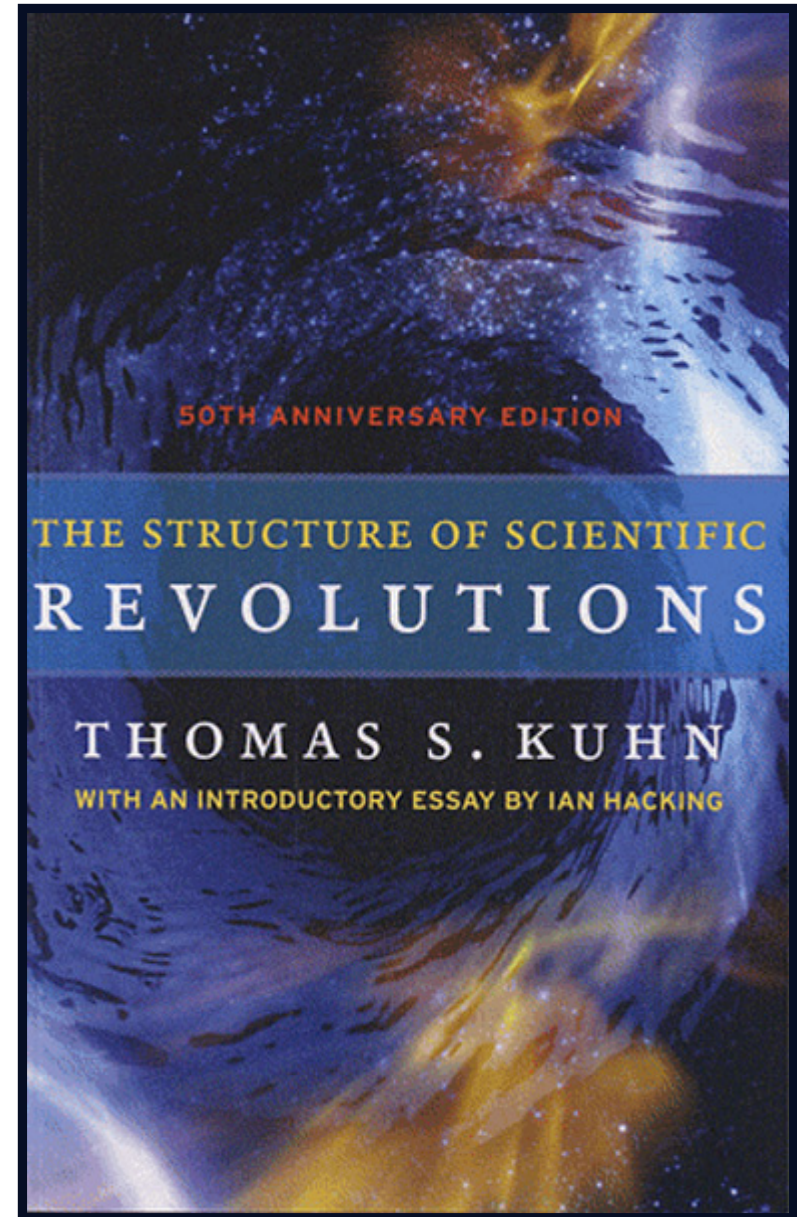
*- Tom Stoppard
Arcadia*

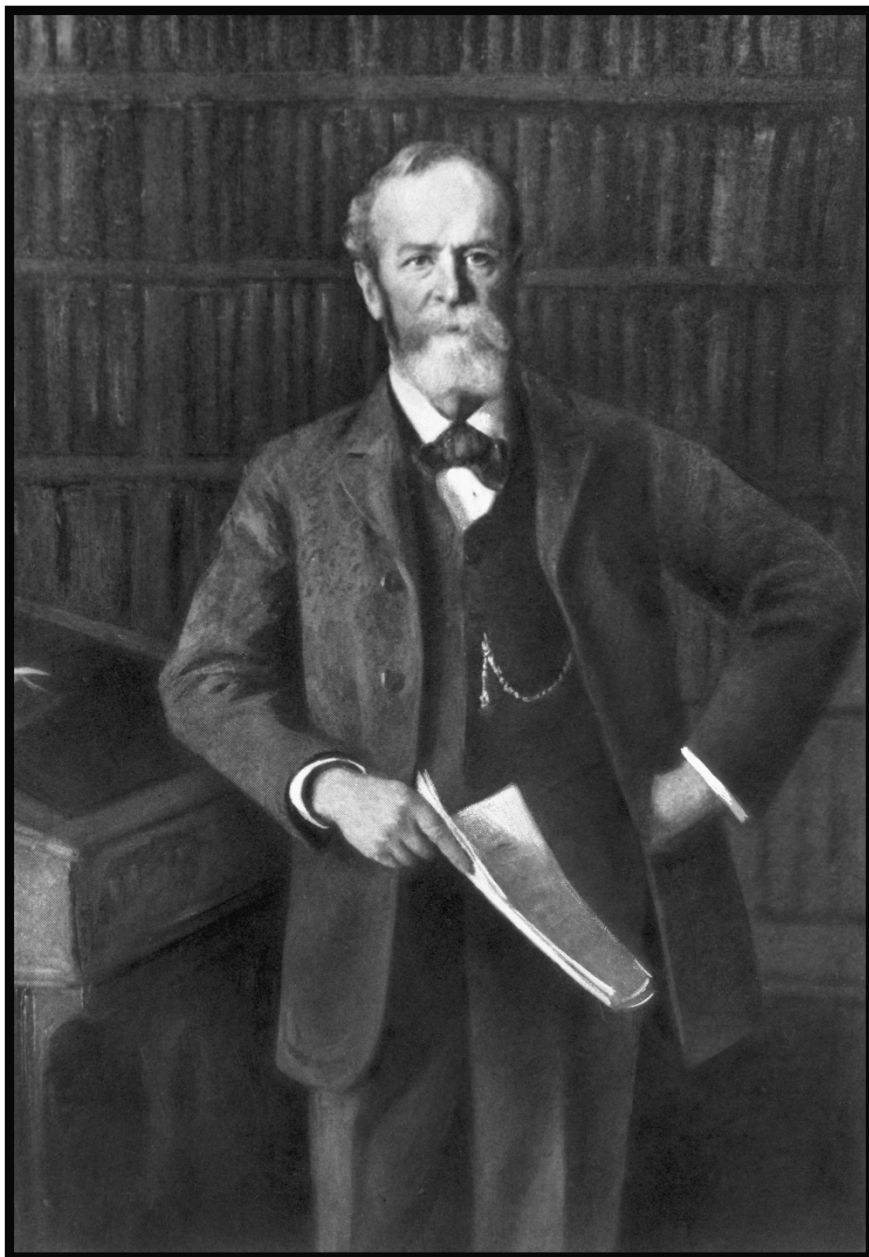
What We Need is a Paradigm Shift in Economic Thinking

Thomas Kuhn



Source: <http://www.defilosooos.nl/index.php/122/k-o/266>





Source: Corbis Images

*“To perceive the world differently,
we must be willing to change our
belief system, let the past slip
away, expand our sense of now,
and dissolve the fear in our minds.*

*“New facts burst old rules; then
newly divined conceptions bind old
and new together into a reconciling
law.”*

*- William James
The Will to Believe*

Ludwig Wittgenstein

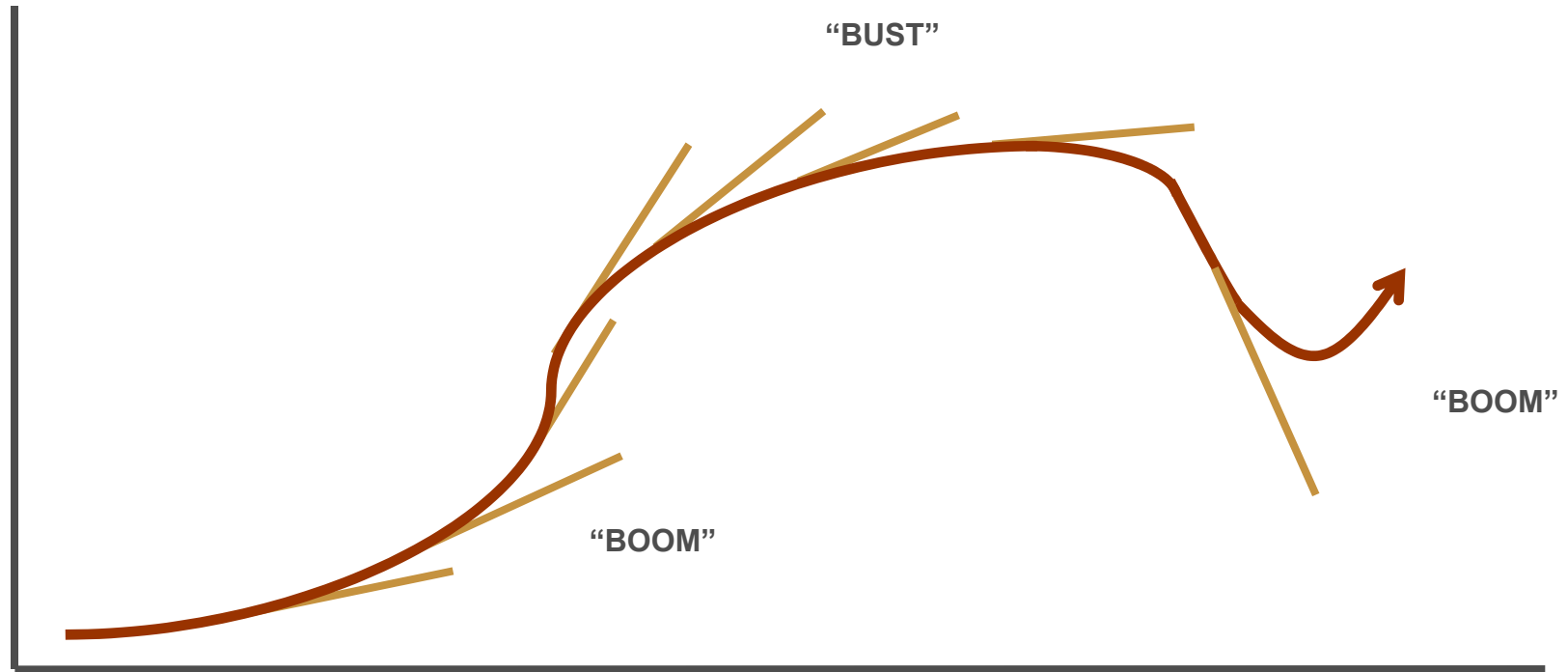


Source: <http://us.fotolia.com>

“When we think about the future of the world, we always have in mind its being where it would be if it continued to move as we see it moving now. We do not realize that it moves not in a straight line...and that its direction changes constantly.”

*- Ludwig Wittgenstein
Culture and Value*

Investor Expectations Change Much Slower Than Economic Reality

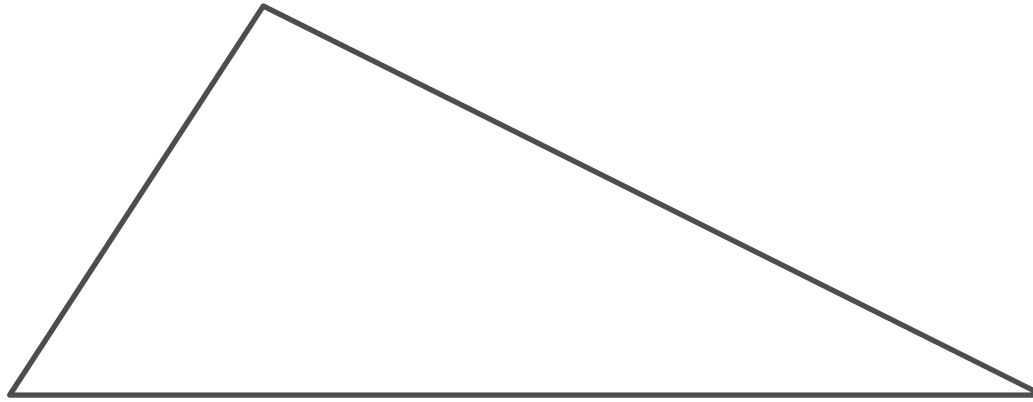


Linear forecasts are anchoring devices which are based on the history of the company and/or the economy.

Language - Descriptions - Explanations

“For a large class of cases – though not for all – in which we employ the word ‘meaning’ it can be defined thus: the meaning of a word is its use in the language.”

*- Ludwig Wittgenstein
Philosophical Investigations*



“Take as an example the aspects of a triangle. This triangle can be seen as a triangular hole, as a solid, as a geometrical drawing; as standing on it’s base, as hanging from its apex, as a mountain, as a wedge, as an arrow or a pointer, as an overturned object which is meant to stand on the shorter side of the right angle, as a half parallelogram, and as various other things.”

*- Ludwig Wittgenstein
Philosophical Investigations*

“Failure to explain is caused by failure to describe.”

*- B. Mandelbrot
Fractal Geometry*

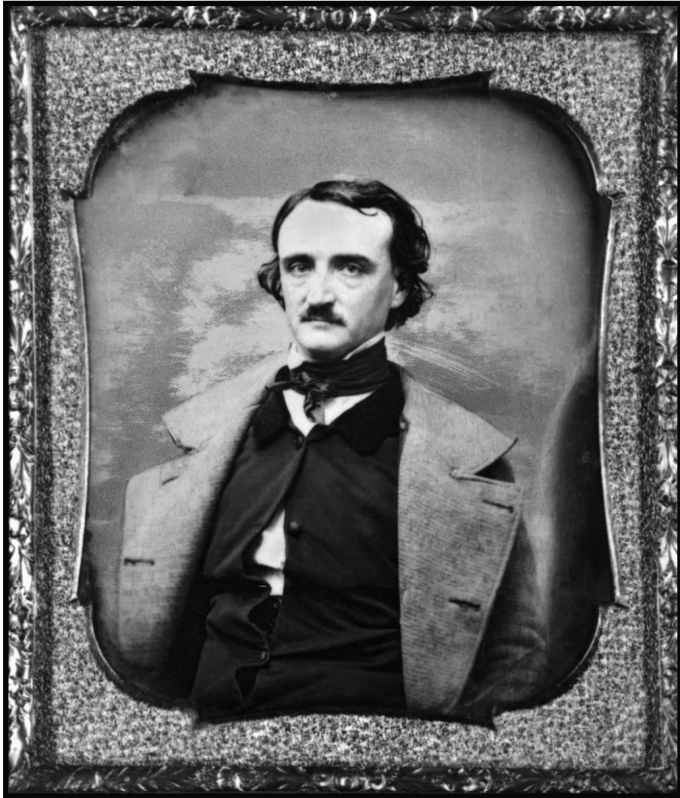
LITERATURE: Read for Thought

- **How to Read a Book: A Classic Guide to Intelligent Reading**

(1940) Mortimer Adler

- Inspectional Reading
 - Systematic Skimming
 - Analytical Reading
 - Syntopical Reading
- Cast the “net” far and wide
- Non-fiction and fictional readings

Edgar Allen Poe, Sir Arthur Conan Doyle and G.K. Chesterton



Source: Corbis Images

The Habits of Mind of the Great Detectives

“Bad” – Incomplete Information

- Auguste Dupin
 - Develop a skeptic’s mindset; don’t automatically accept conventional wisdom.
 - Conduct a thorough investigation.

“Bad” – Analytics

- Sherlock Holmes
 - Begin an investigation with an objective and unemotional viewpoint.
 - Pay attention to the tiniest details.
 - Remain open minded to new, even contrary, information.
 - Apply a process of logical reasoning to all you learn.

“Bad” – Psychology

- Father Brown
 - Become a student of psychology.
 - Seek alternative explanations and re-descriptions.

MATHEMATICS – Beware the Averages

Most people look on averages as basic reality, giving little thought to the possible variances.

“Our culture encodes a strong bias either to neglect or ignore variation. We tend to focus instead on measures of central tendency and as a result we make some terrible mistakes, often with considerable impact.”

- Stephen Jay Gould

*Full House: The Spread of
Excellence from Plato to Darwin (1996)*

The most important lesson investors can learn from Gould's experience is to appreciate the differences between the trend of a system and the trends in the system.

MATHEMATICS – Beware of Nonstationary

“For past averages to be meaningful, the data being averaged must be drawn from the same population. If this is not the case – if the data comes from populations that are different – the data are said to be nonstationary. When data are nonstationary, projecting past averages typically produces nonsensical results.”

- Bradford Cornell
The Equity Risk Premium

Decision Making

A bat and ball cost \$1.10.

The bat costs one dollar more than the ball.

How much does the ball cost?

It takes five machines five minutes to make five widgets. How long would it take 100 machines to make 100 widgets?

In a lake, there is a patch of lily pads. Every day the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long will it take for the patch to cover half the lake?

- Shane Frederick
Cognitive Reflection Test (2005)
Yale University

System 1 Thinking vs. System 2 Thinking

- **System 1 Thinking** is intuitive. It operates automatically, quickly, and effortlessly with no sense of voluntary control.
- **System 2 Thinking** is reflective. It operates in a controlled manner, slowly and with effort. The operations of System 2 thinking require concentration and are associated with subjective experiences that have rule-based applications.

It Is All About Rationality

“Achieving one’s life goals using the best means possible.”

“Dysrationalia” – the inability to think and behave rationally despite having high intelligence.”

- Keith Stanovich
*What Intelligence Tests Miss,
The Psychology of Rational Thought (2007)*

The two principle causes of “dysrationalia:”

1. Processing problems
2. Content problems.

“The faculty for perceiving analogies is the best indication of genius...People who can analogize are the wits, the poets, the inventors, the scientific men, the practical geniuses.”

*- William James
The Principles of Psychology*

"I read this book in one sitting: I could not put it down."

—Praise for the first edition from Peter L. Bernstein, author of *Against the Gods*

INVESTING

THE LAST LIBERAL ART

SECOND EDITION



ROBERT HAGSTROM



Columbia Business School
Publishing