

The discovery of Ignorance

Last 500 years have witnessed unprecedented growth in human power.

1522 → world's first circumnavigation - Magellan.

1969 → landed on moon - evolutionary feat.

1674 → discovered microorganisms - today use it to create medicines.

16th July 1945, 5:29 PM → first atomic bomb detonation, Alamogordo, New Mexico.

Humanity now not only had the means to change the course of history but to end it.

Modern Science differs from previous traditions of knowledge in these ways:-

- ↳ 1. The willingness to admit ignorance
 - ↳ "we do not know"
- 2. Observations & mathematics
- 3. Use theories to create powers

Premodern traditions of knowledge - Islam, Buddhism, Christianity etc. claim everything about the world is already known.

They admitted only two kinds of ignorance.

↳ Individual ignorance → ask someone wiser → get knowledge
(local priest)

↳ entire tradition ignorant of unimportant things.

e.g.: how does a spider weave the web → answer Not in Bible → unimportant question.

1687, Isaac Newton published the mathematical principles of Natural Philosophy, the most important book of modern history.

19th century, scientists came across a few observations that did not fit Newton's laws. → Theory of relativity and quantum mechanics.

1764, Webster and Wallace, actuarial statistics build a life-insurance fund.
Scottish Widows?

↳ Mathematics and Statistics ★★

Benjamin Franklin and the kite experiment? 1752.

The Gilgamesh Project → quest for immortality.

The sugar daddy of science is religious, political, economic reasons or goals which fund these research initiatives.

Scientific research can only flourish in alliance of some religion or ideology. → imperialism and Capitalism.

The Marriage of Science and Empire

To track the transit of Venus, Captain James Cook went on an expedition. Learned that citrus food (vitamin C) cures scurvy. Britain gained military power over seas. captured Australia and New Zealand and Tasmania.

↳ Scientific Revolution and modern imperialism were inseparable.

It all started with European imperialism and capitalism.

1492. Christopher Columbus discovers America. He believed it was the Indies or Indonesian Archipelago and called the people there "Indians".

An Italian sailor Amerigo Vespucci published texts on his expeditions in 1504. In 1507, the continent was named America in his honour.

Shortly, Europe's explore-and-conquest ideology kicked in and Spaniards conquered the Aztec and Inca Empire.

The Capitalist Creed

Bakery example of national money. How "credit" opened up new opportunities. Build your present at the expense of the future.

Credit works on the assumption that the future will be better than the present - why credit work earlier?

Because people didn't believe in the idea of a better future. Business were like zero-sum game. If I win, somebody loses.

1776, Wealth of the nations, Adam Smith.

↳ entrepreneurship → the idea to employ people.

Greed is good for economy. Egoism is altruism.

The profits of production must be reinvested into increasing production.

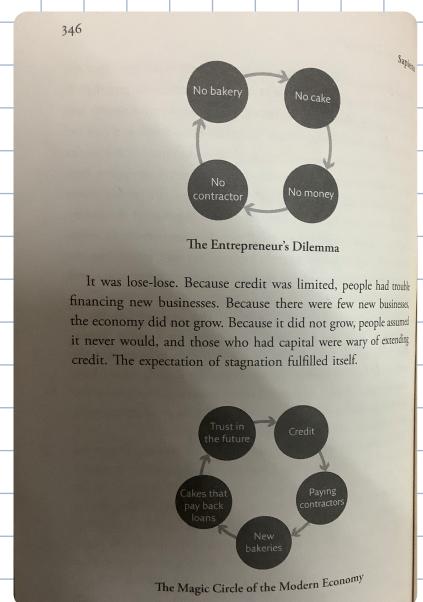
Invest capital back = Capitalism.

European imperialism helped the capitalist mindset to grow.

Limited liability joint stock companies helped develop a financial system in Europe.

This paved the way of Dutch freedom from Spain.

Examples of the Dutch using the financial system to rise to power and Amsterdam became Europe's financial Mecca.



VOC and WIC, famous Dutch joint stock companies.

WIC, in order to control the trade over Hudson river, build a settlement called New Amsterdam. British captured it in 1664 and named it New York.

The Dutch lost at some point and the vacancy was ready to be taken by France and British.

The Mississippi bubble destroyed France's financial system. British company EIC outperformed VOC and ruled over India.

Most of the world was dominated by the British Empire, largest empire ever.

free market = market free from politics/governmental control.

This also led to Atlantic slave trade. Europeans after conquering American lands setup coffee, sugar, tobacco and cotton plantations. Sugar was a rare luxury in Europe. This was a labour intensive task and hence African slaves were imported to America.

Companies operating in slave trade were traded on the stock market. Gave 6-1% average return.

Can the economic pie grow indefinitely? Humans will exhaust raw materials and energy of Earth. What will happen then?

The Wheels of Industry

Before the Industrial Revolution, for millennia, the only source of energy was the sun.

People ate plants their bodies converted food into energy and muscles did the work.

Heat to energy was invented. Coal was used in place of woods for heat.

Discovery of steam engine was a major breakthrough.

1825, first steam powered locomotive train in Britain.

1830, first railway line to transport people.

Humans started finding sources of energy -

Petroleum, Electricity etc.

Industrial Revolution = learning how to harness energy and solving the problem of energy conversion.

It had a huge impact on Agricultural revolution. Farm animals suffered greatly.

Eggs, pigs, diary-cows.

Evolutionary psychology proves that animals too have emotional needs.
For animals,

Survival and reproductions = objective needs = taken care by humans.

Urge to bond with mothers = subjective needs = humans don't care.

American psychologist, Harlow's experiment on monkeys and proof that they have psychological needs.

With humans producing unimaginable goods in huge supply, this gave rise to a question - who is going to buy all this stuff?

This gave rise to consumerism.

People are encouraged to buy. Consumerism has won. Capital - consumerist ethic are two sides of the same coin.

A Permanent Revolution

Industrial Revolution also introduced the idea of "time" and "clocks" to the world. Britain started the idea of Greenwich mean time.

The idea of "time" became entrenched in human brains.

IR also broke the long standing family and community cultures. Earlier, an individual's family was everything. The state and market didn't care about it.

Today, states and markets control our education, pension, medication, business needs, marriage etc. Huge change in human culture within 2 centuries.

Everything is an imagined reality.

We live in a more peaceful world today. The empires have retired. Wars have stopped.

And they lived Happily Ever After

Definition of happiness as a species and how to measure it?

Subjective well-being and not just material happiness.

Money brings happiness? only to a certain extent.

Happiness is a game of human expectations.

Chemical happiness → serotonin, oxytocin and dopamine.

Biologists claim that political power, money, social status etc. are all social constructs and happiness is only controlled by serotonin levels.

If the serotonin level is X, for a person living in a penthouse or a hut, both are equally happy.

Prozac, is an antidepressant used to increase serotonin levels.

Happiness is governed by the "meaning" we ascribe to our lives. And our meanings are nothing but "delusions". This is a depressing thought. Happiness depends on self-delusions??

Modern religion of individualism is liberalism. Religion and philosophies have a different approach to happiness. Buddhism has questioned happiness for over 2500 years. Human craving is the root of all suffering.

Buddhism claims that people should realize the impermanent nature of their feelings and stop craving about anything.

Liberalism claims happiness is independent of external conditions. Buddhism says happiness is independent of both external and internal conditions.

The End of Homo Sapiens

Today we are in the world of intelligent designs. Homo Sapiens are tinkering with natural selection.

Bioengineering, Cyborgs and Inorganic life.

Eduardo Kac → fluorescent green rabbit, Alba
Human Neanderthal Project.

Dionic life, arms → Jesse Sullivan, Idoia the monkey.
Human Brain Project.

Today, we are a species of dissatisfied and irresponsible gods who don't know what they want.