**CONTENTS OVERVIEW**

PART ONE – The Cognitive Revolution

**Family:** Great Apes

**Genera:** Homo, Gorillas, Chimpanzees, Orang-utans

**Species of Homo** (Man):

* Neanderthalensis — Europe and Western Asia
* Erectus — Eastern Asia
* Soloensis —Island of Java, Indonesia – Man from the Solo Valley
* Floresiensis — Island of Flores, Indonesia – Dwarves
* Denisova — Siberia — discovered in the Denisova Cave in Siberia
* Rudolfensis — Man from Lake Rudolf
* Ergaster — Working Man
* Sapiens — Wise Man – East Africa
* Shared characteristics:
  + extraordinarily large brains — “we don’t know” what caused the evolution of the massive human brain, at the expense of our muscles and at the high cost of the need for energy
  + walk upright on two legs – have densely enervated hands with finely tuned muscles in the palms and fingers enabling performance of intricate tasks like producing and using sophisticated tools
  + offspring are born helpless and dependent on their elders long term for sustenance, protection, and education leading to the need for and consequent development of complex social structures
  + solidly in the middle of the food chain — rise of Homo Sapiens caused or was correlative with jump to the top of the food chain
  + domesticated fire for light, warmth, and cooking which in turn enabled humans to have a more diverse diet, devote less time to eating, have smaller teeth and shorter intestines, which in turn contributed to the development of larger brains.

Two theories re ultimate dominance of Homo sapiens beginning 70,000 years ago:

1. Interbreeding theory of attraction, sex and mingling
2. Replacement theory of incompatability, revulsion and “perhaps even genocide”— Sapiens replaced all previous humans without merging with them

Significance of these two theories:

If 1 then there may be genetic differences between Africans, Europeans, and Asians going back thousands of years

If 2 then all living humans have the same genetic code and racial distinction is negligible.

* Scientists have recently discovered 1 to 4% of unique human DNA of modern populations in the Middle East and Europe is Neanderthal DNA and 1 to 6% of unique human DNA of modern Melanesians and Aboriginal Australians is Denisovan DNA

This could mean that both theories apply so that Sapiens is a somewhat interbred species.

OR

Sapiens drove all other humans to extinction because:

* They were more proficient hunters and gatherers
* Had better technologies
* Had superior social skills
* Were intolerant and committed “ethnic-cleansing” (P18) — “Too familiar to ignore, too different to tolerate” P18
* For unknown reasons they experienced a ‘cognitive revolution’ between 70,000 and 30,000 years ago the consequences of which were the development of amazingly supple language skills that enabled Sapiens:
  + to share information about the world;
  + to gossip, which is a means of sharing information about the complex social relationships of the group
  + and, uniquely, to “transmit information about things that do not exist” (P24) “As far as we know, only Sapiens can talk about entire kinds of entities that they have never seen, touched or smelled….This ability to speak about fictions is the most unique feature of Sapiens language.”
* p27 “Large numbers of strangers can cooperate successfully by believing in common myths.” Homo sapiens ability to fictionalize, to create “common myths such as the biblical creations story” enabled Sapiens to “cooperate in extremely flexible ways with countless numbers of strangers” …and this is why “Sapiens rule the world.”
* P31 “Much of history revolves around this question: how does one convince millions of people to believe particular stories about gods, or nations, or limited liability companies? Yet when it succeeds, it gives Sapiens immense power, because it enables millions of strangers to cooperate and work towards common goals.”
* Since the Cognitive Revolution, Sapiens has been living in a dual reality: the objective reality of rivers, trees, and lions, and the imagined reality of gods, nations and corporations.
* P37 “The Cognitive Revolution is accordingly the point when history declared its independence from biology.”
* Overview of life in the pre-agricultural world:
* Vast majority lived in small bands numbering several dozen or at most several hundred individuals (at this point the odd definition of society appears in which it includes humans and animals.)
* Roamed in search of food —lived on the road — these wanderings were the “engine of worldwide expansion” — only settled seasonally or permanently where food was plentiful i.e. fishing villages
* Also foraged for knowledge —detailed mental maps of their territory essential for survival
* Band members knew each other intimately —loneliness and privacy were rare
* Lived cooperatively in small populations spread over vast territories
* Trade limited to prestige items and not necessities
* Sporadic socio-political relations
* Assume they were animists, i.e. believed there was no barrier between humans and other beings but we don’t know their what spirits they prayed to, their festivals, taboos or stories
* Role of war is unknown and whether or not they were peaceful or exceptionally cruel and violent
* About 45,000 years ago they developed seafaring capabilities and journeyed from Indonesia to Australia “one of the most important events in history: at least as important as Columbus’ journey to America or the Apollo II expedition to the moon” (???)

PART TWO – The Agricultural Revolution

* 10,000 years ago Sapiens began devoting almost all their time and effort to manipulating the lives of a few animal and plant species = the Agricultural Revolution
* began around 9500-8500 BC in the hill country of SE Turkey, Western Iran and the Levant.
  + 9000 BC wheat and goats
  + 8000 BC peas and lentils
  + 5000 BC olive trees
  + 4000 BC horses
  + 3500 BC grapevines
* even today >90% of calories that feed humanity come from the handful of plants domesticated between 9500 and 3500 BC—wheat, rice, maize, potatoes, millet and barley.
* AR happened where the species that could be domesticated lived — i.e. could be because they were either not too elusive and not too ferocious.
* AR was history’s “biggest fraud” — not the fantasy of it being “a great leap forward for humanity”
* Brought a “plethora of aliments’
* A more miserable existence
* No economic security
* Not security against human violence
* P 83Better protection against wild animals, rain and cold and more food per unit of territory so more copies of Sapiens DNA were produced which is the normal definition of evolutionary success. BUT at the cost of loss of the higher quality of life from hunting/gathering
* P86 A fateful miscalculation —“people were unable to fathom the full consequences of their decisions” — no going back, “The trap snapped shut.”
* p87 The law of luxuries — Luxuries become necessities and spawn new obligations.

OR instead of domesticating wheat to increase the food supply for economic and demographic reasons, it was done to support the building and running of monumental structures, i.e. temples, built for mysterious cultural reasons, to answer the need to feed temple visitors.

* P92-97: domestication of animals and the fate of those animals whose DNA replication is high but whose lives are miserable, short, and brutish. P96-7 “For the vast majority of domesticated animals, the AR was a terrible catastrophe.”
* food surpluses — new transportation technology led to villages, towns and cities joined by new kingdoms and commercial networks.
* Human imagination in turn was building “astounding networks of mass cooperation, unlike any other ever seen on earth…. Most geared towards oppression and exploitation. But some geared towards fostering effective cooperation for the creations of a better society. (Comparison of Hammurabi’s Code and the American Declaration of Independence. ‘Translation’ of the DoI into ‘biological terms’…an exercise in proving that shared belief in imagined orders fosters effective cooperation.
* P111 Discussion of the fragility of imagined orders and the “continuous and strenuous efforts “ needed to safeguard them. These efforts include both violence and coercion as well as the support of ‘true believers’.

[Why this Imagined Order digression here?]

Dissertation on how to ‘cause people to believe in an imagined order such as Christianity, democracy or capitalism?”

* Never admit the order is imagined
* Educate people thoroughly
* Incorporate imagined order principles into “anything and everything”

3 main factors preventing people from realising the imagined order organising their lives exists only in their imagination:

1. the IO is embedded in the material world: e.g. modern architecture supports individualism by providing each child in a modern house with his/her own room
2. the IO shapes our desires: e.g. Follow your Heart, Diet Coke: Do what feels good. — programming for romanticism and consumerism myths
3. the IO is inter-subjective i.e. something that exists within the communication network linking the subjective consciousness of many individuals. ‘If most individuals in the network die or change their beliefs, the inter-subjective phenomenon will mutate or disappear. …Many of history’s most important drivers are inter-subjective: law, money, gods, nations.” P117

…therefore…to change an existing IO requires believing in an alternate IO P118

— Dissertation on the history of writing, information retrieval—catalogues, dictionaries, calendars, forms and tables, and the ‘language of numbers’

—P133— human history in the millennia following the AR ‘boils down to’ humans organizing themselves in mass cooperation networks, despite lacking the biological instincts necessary to sustain them by creating imagined orders and devising scripts thereby filling in the gaps left by our biological inheritance. This was “a dubious blessing” because:

* IOs sustaining these networks were neither neutral nor fair, dividing people into hierarchical groups …both Hammurabi’s Code and the IO established by America in 1776 — despite proclaiming all men created equal, equality “meant simply that the same laws applied to rich and poor. Liberty did not mean the disempowered could gain and exercise power.
* P134 — the iron rule of history that “every imagined hierarchy disavows its fictional origins and claims to be natural and inevitable”
* Dissertation on the origination and function of hierarchies and why all societies have them but base them on different categories, i.e. caste or race or religious belief
* Originate from ‘accidental historical circumstances’ and are perpetuated and refined as different groups develop vested interests in this social structure

—P144 “He and She” — Dissertation on the hierarchy of gender, the fallacy of biological determinism in distinguishing the natural from the unnatural, the distinction between sex—a biological category that is ‘child’s play’ and gender—a socio/cultural category that is “serious business.”

—Why patriarchy became the norm in “almost all agricultural and industrial societies”:

* muscle power
* higher level of male aggressivity
* humans became genetically coded for ambitious, competitive men and submissive caretaking women
* BUT it remains a puzzle as to why the one most highly cooperative species has evolved so that less cooperative men control more cooperative woman. (Duh?)
* Also unclear despite all the recent dramatic changes why patriarchy remains universal and stable. P159

PART THREE – The Unification of Mankind

Culture = a network of “artificial instincts” that became increasingly elaborate

* scholars no longer conclude that cultures with their typical beliefs, norms and values are unchanging but rather that they are ‘in constant flux’ — transform due to:
* changes in the environment
* interaction with neighbouring cultures
* their own internal dynamic because “every man-made order is packed with internal contradictions”. Attempting to reconcile contradictions fuels change. (Examples)
* constant flux of human culture begs question as to whether history has a direction P166 YES — “Over the millennia, small, simple cultures gradually coalesce into bigger and more complex civilisations, so that the world contains fewer and fewer mega-cultures, each of which is bigger and more complex.”
* Dissertation on history’s ‘relentless move towards unity’ — P170 “most important stage in the process of global unification occurred in the last few centuries when empires grew and trade intensified”
* How money, empires and universal religions spread and laid the foundation of the united world of today

Chapter 10 —**The Scent of Money**

* **How much is it?**
* **Shells and Cigarettes**
* **How Does Money Work?**
* **The Gospel of Gold**
* **The Price of Money**

Chapter 11 — **Imperial Visions**

**What is an Empire?** — a political order characterized by:

1. Ruling over a significant number of distinct peoples, each possessing a different cultural identity and separate territory
2. Flexible borders and an unlimited appetite that feeds its basic structure and identity regardless of how widely its imperial net is cast.
3. Need not emerge from military conquest
4. Need not be ruled by an autocrat
5. Size doesn’t matter

— Result: Empires unite diverse ethnic groups and ecological zones under a single political umbrella

**Evil Empires?**

—contemporary critique of empires:

1. they don’t work
2. evil engines of destruction and exploitation

—first criticism is ‘nonsense’ and second is ‘deeply problematic’

—empires have been the world’s most common form of political organisation for the last 2,500 years and have provided very stable government

BUT

While the “standard imperial toolkit included wars, enslavement, deportation and genocide” …imperial elites “used the profits of conquest to [also] finance …philosophy, art, justice and charity.” P193

**It’s for Your Own Good**

—P196 Imperial ideology has tended to be inclusive and all-encompassing

**When They Become Us**

* **P197** “Ideas, people, goods and technology spread more easily within the borders of an empire than in a politically fragmented region.”

**Good Guys and Bad Guys in History**

**—**P206 disavowing the legacy of a brutal empire in the hope of reconstructing and safeguarding the ‘authentic’ cultures that preceded it, means likely defending nothing but the legacy of an older no less brutal empire

— the unresolvable thorny question of cultural inheritance

**The New Global Empire**

Harari’s case for a global empire

* All of humankind is the legitimate source of political authority
* Independent nation states have no legitimacy in the face of essentially global problems such as global warming
* States are losing their independence due to “immensely powerful currents of capital, labour and information “ turning and shaping the world disregarding the borders and opinions of states
* Rule by a multi-ethnic elite bound by a common culture and common interests

P208 (The Manifesto)

“ Throughout the world, more and more entrepreneurs, engineers, experts, scholars, lawyers and managers are called to join the empire. …More and more choose the empire.”

Chapter 12 – **The Law of Religion**

— Religion = a belief in a universal superhuman order that establishes binding norms and values with an attendant missionary obligation (P210)

—majority of ancient religions were local and exclusive —universal and missionary religions appeared in the first millennium BC vitally contributing to the unification of mankind

**Silencing the Lambs**

**God is One**

**The Battle of Good and Evil**

**The Law of Nature**

**The Worship of Man**

**ancient mythologies**

=humans promise devotion to the gods in exchange for mastery over plants and animals

**|**

**|**

**polytheistic religions**

=as kingdoms and trade networks expanded humans promise devotion to more powerful gods whose authority encompassed whole kingdoms or trade basins

* exalted the status of the gods and of humankind
* regards the supreme power governing the world as devoid of interests and biases and unconcerned with the mundane desires, cares and worries of humans
* affinity with supreme power is about attainment of enlightenment
* polytheism promotes religious tolerance, is inherently open-minded and rarely prosecutes ‘heretics’ and ‘infidels’

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**monotheistic religions**

**Egyptian ‘Aten’**

**Judaic god of the Old Testament**

**Christian ‘Jesus of Nazareth’**

* “an esoteric Jewish sect that sought to convince Jews that Jesus of Nazareth was their long-awaited messiah”
* Paul of Tarsus concludes Jesus life and message ‘the good word’= the gospel should be spread throughout the world

**7th Century Islam**

—monotheists have tended to be far more fanatical and missionary than polytheists — discredit all other religions — “violently exterminate all competition” P281

**|**

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**Natural law religions:   
Jainism, Buddhism, Daoism, Confucianism, Stoicism, Cynicism, Epicureanism, and the ideologies:**

**Liberalism, Communism, Capitalism, Nationalism, Nazism**

=superhuman order governing the world is the product of natural laws rather than divine wills and whims

* gods are also subject to the laws of nature
* Buddhism is the “most important of the ancient natural law religions whose central figure, Buddha is not a god but a human, Siddhartha Gautama, heir to a small Himalayan kingdom around 500 BC
* Dissertation on Buddhism
* Modernity, despite growing secularism, taking into account ‘natural law religions’ turns out to be an age of intense religious fervour and to have experienced “the bloodiest wars of religion in history”
* Differentiating ideologies from Natural Law religions is merely semantics — “If a religion is a system of human norms and values that is founded on belief in a superhuman order, the Soviet Communism was no less a religion than Islam.” P228

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**Humanist religions**

=worship Homo sapiens

* believe Homo sapiens has a unique and sacred nature fundamentally different from the nature of all other animals and phenomena
* determines the meaning of everything that happens in the universe
* rest of the world and all other beings exist for the benefit of Homo sapiens
* no agreement on definition of humanity — three rival sects of humanism:

1. liberal humanism: humanity is individualistic and resides within each individual Homo sapiens—supreme commandment: to protect the inner core and freedom of each individual human
2. socialist humanism: humanity is collective and resides with the species as a whole—supreme commandment: to protect equality within the species
3. evolutionary humanism: humanity is a mutable species meaning humans could degenerate into subhumans or evolve into superhumans—supreme commandment: to protect humankind from degeneration and to encourage evolution into superhumans

—P236 huge gulf opening between tenets of liberal humanism and latest findings of the life sciences “Scientists studying the inner workings of the human organism have found no soul there. They increasingly argue that human behaviour is determined by hormones, genes and synapses, rather than by free will…”

PART FOUR – The Scientific Revolution

**14 The Discovery of Ignorance –**“Why did modern humans develop a growing belief in their ability to obtain new powers through research?”

P248—“The last 500 years have witnessed a phenomenal and unprecedented growth in human power”:

|  |  |  |  |
| --- | --- | --- | --- |
| **Category** | **1500 AD** | **2000 AD** | **Growth** |
| *Homo sapiens* population | 500 million | 7 billion | x 14 |
| Goods & services production | 250 billion/yr | 60 trillion/yr | x 240 |
| Caloric consumption | 13 trillion/day | 1,500 trillion/day | x 115 |

* P249“During the last 5 centuries, humans increasingly came to believe they could increase their capabilities by investing in scientific research”

**Ignoramus**

* modern science differs from pre-modern science in 3 ways:

1. Willingness to admit ignorance — assume ‘we do not know’ — no concept, idea or theory is sacred
2. Centrality of observation and mathematics — aim is to obtain new knowledge by observation and use of mathematical tools to theorize
3. Acquisition of new powers—Theories are used to acquire new powers and develop new technologies

—scientific revolution = a revolution of ignorance—realization that humans do not know the answers to their most important questions — thereby making modern science more dynamic, supple and inquisitive than any previous tradition of knowledge.

BUT

this challenges shared myths enabling cooperation

THEREFORE

stabilization of the socio-political order in the face of this challenge relies on: P253

1. declaring a scientific theory to be the final and absolute truth
2. living in accordance with non-scientific absolute truth e.g. liberal humanism —“the dogmatic belief in the unique worth and rights of human beings—“a doctrine which has embarrassingly little in common with the scientific study of Homo sapiens.”

**The Scientific Dogma**

= common core of research methods: collect empirical observations and use mathematics to describe them

—e.g. development of statistics – Fund for the Provision for the Widows and Children of the Ministers of the Church of Scotland —history of the Scottish Widows pension and insurance companies.

**Knowledge is Power**

P259 — relationship between science and technology is a very recent phenomenon but once intertwined especially for military might purposes, with the advent of capitalism and the industrial revolution, this quickly transformed the world.

**The Ideal of Progress**

—P264 “until the SR, most human cultures did not believe in progress — impossible and hubristic for humans to overcome the world’s fundamental problems: poverty, illness, famine, old age and death

—as science began to solve one unsolvable problem after another, “many became convinced humans could overcome any and every problem by acquiring and applying new knowledge.”

—Examples: Benjamin Franklin’s disarming the gods with the lightning rod; modern alleviation of social poverty and near eradication of biological poverty

**The Gilgamesh Project**

—P266 pre-moderns saw death as inevitable fate and most faiths “turned death into the main source of meaning in life”

—P267 modern scientists see death as a technical problem resolvable by technical solutions

—P270 “How long will the Gilgamesh Project—the quest for immorality—take to complete?” —cause for optimism is growth in our knowledge about the human body in the last century — some scholars say humans will become amortal by 2050 i.e. barring fatal trauma, their life will be extendable indefinitely

—most late-modern religions and ideologies have “already taken death and the afterlife out of the equation” —nationalism is the only modern ideology that still awards death a central role promising eternal life to those who sacrifice themselves for their nation in the collective memory of the nation (Harari asks whatever this means.)

**The Sugar Daddy of Science**

—scientific research is shaped by economic, political and religious interests. P 272-3 An expensive endeavour funded by governments, businesses, foundations and private donors “because somebody believes they can help attain some political, economic or religious goal.

—P 274 “science is unable to set its own priorities and incapable of determining what to do with its discoveries.” (?)

—scientific research flourishes only in alliance with some religion or ideology which justifies the costs and determines what to do with the discoveries.

—two main forces shaping and directing science are empire-building/extension and capitalism.

**15 The Marriage of Science and Empire** — Examination of the alliance between science and the European Empires

—P275 1768 Expedition of Captain James Cook to observe the Venus transit to help with measuring the distance between the sun and the earth — enormous quantities of other data collected and brought home — “a scientific expedition protected by a military force or a military expedition with scientists tagging along?” —SR and imperialism were inseparable

**Why Europe?**

—between 1750 and 1850 global centre of power shifted to Europe when Europeans humiliated the Asian powers in a series of wars and conquered large parts of Asia —by 1900 Europeans firmly controlled world’s economy and most of its territory — How did this happen? Europe’s scientists deserve much of the credit but “the values, myths, judicial apparatus and socio-political structures that took centuries to form and mature in the West were the key and these could not be copied or internalised rapidly elsewhere .

—P282 modern science and capitalism enabled Europe to harness the technological bonanza when it began there more effectively and quickly

—“hardly coincidental that science and capitalism form the most important legacy that European imperialism has bequeathed the post-European world of the 21st century”

**The Mentality of Conquest** — “They have come to steal your lands”

—P284 European imperialism unlike all other imperial projects hoped to obtain new knowledge along with new territories: e.g.

15th and 16th centuries: Prince Henry the Navigator, Vasco da Gama, (1492) Christopher Columbus,

Ferdinand Magellan

Late 18th century: Napoleon

1831: HMS Beagle carrying Charles Darwin on an expedition to map the coasts of South America, the Falkland Islands and the Galapagos Islands

**Empty Maps** — “I claim all these territories for my king!”

* European ‘explore and conquer mentality’ illustrated by development of world maps from maps with empty spaces and blank spots to filled in maps detailing all the oceans and continents.
* European imperial expeditions transformed the history of the world from a history of isolated peoples and cultures to a history of “a single integrated human society.” P289

**Invasion from Outer Space**

—Cortes conquering the Aztecs in 1519 — for the Spanish “plunging into the unknown was exhilarating…” —“the Aztecs did not know how to react”

—European hegemony collapsed in the 20th Century when non-European cultures adopted a global vision: e.g. Algerian War of Independence (1954-62), Vietnam War (1960s -1974)

**Rare Spiders and Forgotten Scripts**

—P297 for modern Europeans building an empire was a scientific project, while setting up a scientific discipline was an imperial project

* examples of British Scientific curiosity:
  + 1830s— Henry Rawlinson’s discovery and deciphering of the Behistun Inscription written in cuneiform script in Old Persian, Elamite and Babylonian;
  + 1783 —William Jones, judge in the Supreme Court in Bengal founding the Asiatic Society devoted to studying the cultures, histories and societies of Asia, India in particular. His published observations on Sanskrit ultimately founded the science of comparative linguistics.
* European conquerors knew their empires very well and came to believe that acquiring new knowledge was always good —not vast enterprises of exploitation but rather altruistic projects conducted for the sake of the non-European races
* P302 “these empires wielded so much power and changed the world to such an extent that perhaps they cannot be simply labelled as good or evil. The created the world as we know it, including the ideologies we use in order to judge them.”

— developed race based theories of superiority replaced today by theories of ‘culturism’ —characterization of cultures in terms of their values and politics — differences studied in the humanities and social sciences lead to positing clashes of civilizations e.g. between newly immigrated Muslim communities in European societies — easy for biologists today to disavow racial differences; harder for historians and anthropologists to disavow culturism.

**16 The Capitalist Creed** —Examination of the alliance between science and capitalism

* —P305
* Is money the ultimate goal of empire building and scientific development or just a “dangerous necessity”?
* —P305 for most of history the economy remained static — in the modern age the economy began to grow because of a growing trust in the future —trust that future resources will be more abundant than present resources and hence a willingness to extend credit

**A Growing Pie**

* —P310 — extension of credit brings real economic growth which strengthens trust in the future which motivates more extension of credit
* —P311— 1776 *The Wealth of Nations*, Adam Smith: an increase in private profits is the basis for collective wealth= “one of the most revolutionary ideas in human history”= “greed is good” = “egoism is altruism”—Smith taught people to think about the economy as a ‘win-win situation’ in which my profits are also your profits.”
* a new ethic emerged encouraging re-investment of profits to increase production —Capitalism distinguishes between ‘capital’—money, goods and resources invested in production, and unproductive ‘wealth’
* —P314 “Capitalism is descriptive—offers an account of how money works—and prescriptive—promotes reinvesting profits in production to produce economic growth—and encompasses an ethic: economic growth is good because it promotes affluence and political stability.
* —P314 Capitalism funds scientific research with the prospect of leading to increased production and profit i.e. research that results in new discovery that grows the economy.

**Columbus Searches for an Investor**

* P316 In Europe unlike in the Asian powerhouse world, kings and generals gradually adopted the mercantile way of thinking leading to merchants and bankers becoming the ruling elite. European conquest was increasingly financed through credit rather than taxes and increasingly directed by capitalists aiming for maximum return on their investments. —mercantile empires were much shrewder in financing their conquests—“nobody wants to pay taxes, but everyone is happy to invest.”
* P316 the magic circle of imperial capitalism—the story of Columbus seeking and finally obtaining financial backing from Ferdinand and Isabella of Spain in 1484 —the enrichment of Spain
* P317European development of a sophisticated financial system that could raise large amounts of credit on short notice and put it at the disposal of private entrepreneurs and governments
* Investing with the Dutch vs investing with the Spanish king — the rise of the global Dutch empire
* Investing with the British vs investing with the French king —the rise of the global British empire —“Napoleon made fun of the British, calling them a nation of shopkeepers. Yet these shopkeepers defeated Napoleon himself, and their empire was the largest the world has ever seen.”

**In the Name of Capital**

* P325 —during the 19th century joint-stock companies, given the control their managers and shareholders had over the political systems of their native governments could count on the state to protect their interests …”As Marx and other social critics quipped, Western governments were becoming a capitalist trade union.”
* most notorious example of government doing the bidding of “big money” was the First Opium War between Britain and China in 1840-42
* Another example was British quelling of the Egyptian rebellion of 1881, an attempt to abrogate all foreign debt. Egypt became a British protectorate until after WWII.
* War itself becoming a commodity: Greek Rebellion Bonds of 1820s
* Bear-hug between capital and politics has far reaching effect on a country’s credit rating which is often less dependent on natural resources than on political events such as regime change, foreign policy, social and cultural factors.

**The Cult of the Free Market**

* P328 Relations between capital and politics is hotly debated. Ardent capitalists say capital should be free to influence politics but politics should not influence capital. Wisest economic policy is to keep politics out of the economy, reduce taxation, minimize regulation and allow market forces free rein=the free-market doctrine
* criticism of free market doctrine is that markets by themselves offer no protection against fraud, theft and violence. Political systems need to ensure trust by establishing and enforcing the law. When the state fails to do this the economy suffers.

**The Capitalist Hell**

* P329 dangerous to give markets a completely free rein:
  + Monopolies
  + Owners collude against their workers — low wages, debt peonage or even slavery
* History of the Atlantic slave trade — caused by unrestrained market forces rather than tyrannical kings or racist ideologues—not controlled by any state or government, a purely economic enterprise organised and financed by the free market according to the laws of supply and demand
* P331—free-market capitalism cannot ensure that profits are gained or distributed fairly—capitalists can be blinded to anything that might stand in their way—unrestrained growth can easily lead to catastrophe.
* P331“Some religions, such as Christianity and Nazism, have killed millions out of burning hatred. Capitalism has killed millions out of cold indifference coupled with greed.”
* Industrial Revolution in the 19th century brought no improvement in the ethics of capitalism —bankers and capital owners enriched while millions of workers were condemned to abject poverty
* Many examples in the European colonies — Belgian Congo
* Examples of Capitalist greed and inequities still abound. Capitalism’s answers to this criticism:
* the only serious attempt to manage the world differently is Communism and it has been an abject failure, worse in every conceivable way
* we need more patience —the pie will grow bigger and division of the spoils will be sufficient to provide for all
* some positive signs: life expectancy, child mortality and caloric intake have all improved significantly despite the exponential growth in human population
* Can the economic pie grow indefinitely?

**17 The Wheels of Industry**

**The Secret in the Kitchen**

= the steam engine — internal combustion engine — electricity — atomic energy

**An Ocean of Energy**

—P339 —Industrial Revolution has been a revolution in energy conversion — only limit to the amount of energy at our disposal is set by our ignorance — all we lack is knowledge to harness and convert energy to our needs

**Life on the Conveyor Belt**

* —Industrial Revolution yielded unprecedented combination of cheap and abundant energy and raw materials —> an explosion in human productivity especially in agriculture — IR = the 2nd Agricultural Revolution in which industrial production methods are the mainstay
* P341 even plants and animals are mechanised: farm animals treated as machines mass-produced in factory-like facilities: egg-laying hens, pigs, dairy cows.
* Dissertation on the evils of industrial animal husbandry
* P346 only 2% of the population makes a living from agriculture producing enough to feed the entire US population + export to the rest of the world.

**The Age of Shopping**

* P347 modern capitalist economy must constantly increase production to survive which means it must encourage consumption— the new ethic: consumerism = consuming more products and services is positive—new credo is “treat yourself” “spoil yourself” — indulgence is good and frugality is self-oppression
* Other manifestations of this ethic:
  + We buy products we don’t need
  + Shopping is a favourite past-time
  + Shopping is a way of marking festivals like Christmas
  + Obesity is a leading health problem
* Consumerism has also reinforced difference between the elite and the masses—Elite invest and the masses go into debt buying things they don’t really need (?)
* a merger of the capitalist and consumerist ethics
* commandments of most previous ethical systems were difficult to follow — consumerist commandment to buy more is “the first religion in history whose followers actually do what they are asked to do.” P349

**18 A Permanent Revolution**

* P350—Industrial Revolution liberated humans from dependence on their surrounding ecosystems—“Our once green and blue planet is becoming a concrete and plastic shopping centre.”
* Ecological degradation is not the same as resource scarcity but fear if Ec degrade is well founded
* Humans are driving many species into extinction and may even annihilate themselves ..But other organisms (rats, cockroaches) are ‘doing quite well”

**Modern Time**

* P352 Sapies are increasingly impervious to the ‘whims of nature’ but ever more subject to the dictates of modern industry and government
* Rhythms of traditional agriculture have been replaced by the uniform and precise schedule of industry
* Modern industry sanctifies precision and uniformity
* Turned the timetable and the assembly line into a template for almost all human activities
* British adoption of Greenwich Observatory time as national time which citizenry was obliged to live by spawning global network of timetables synchronized to fractions of seconds.
* Other upheavals from the IR:
* Urbanisation
* Disappearance of the peasantry
* Rise of the industrial proletariat
* Empowerment of the common person
* Democratisation
* Youth culture
* Disintegration of patriarchy
* family and the local community replaced by the state and the market

**The Collapse of the Family and the Community**

* P356 in pre-modern world daily life of most humans revolved around nuclear family, extended family and local intimate community. People worked in the family business and family was:
* Welfare system
* Health system
* Education system
* Construction industry
* Trade union
* Pension fund
* Insurance company
* Radio
* Television
* Newspapers
* bank
* Police
* Community helped on the basis of local traditions and an economy of favours
* Kingdoms and empires were little more than large protection rackets
* In last 2 centures states and markets have used their growing powers to weaken the traditional bonds of family and community — the individual is the focus — provided and cared for by the state and the market
* Cost is alienation and threat of power wielded by impersonal state
* P360 “Millions of years of evolution have designed us to live and think as community members. Within a mere two centuries we have become alienated individuals. Nothing testifies better to the awesome power of culture.”

**Imagined Communities**

* P362—Markets and states also supply tribal bonds by fostering imagined communities, i.e. the nation is the imagined community of the state and the consumer tribe that of the market
* These ICs make us imagine that the millions of strangers in our community all have a common past, interests and future = inter-subjective reality
* P363—Nation does its best to hide its imagined character

**Perpetuum Mobile**

* P365 — pace of change has become so quick that social order is dynamic and malleable and in a state of permanent flux
* Attempting to define the characteristics of modern society is akin to defining the colour of a chameleon
* Incessant change is the only certain characteristic
* Late modern era has seen unprecedented levels of violence and horror but also of peace and tranquillity—7 decades since end of WWII have been the most peaceful era in human history

**Peace in Our Time**

* Most people don’t appreciate just how peaceful an era we live in
* In most parts of the world people go to sleep without fearing that in the middle of the night a neighbouring tribe might surround their village and slaughter everyone
* Decline of violence is due largely to the rise of the state.
* P367 “During the 20th C tens of millions if not hundreds of millions of people were killed by the security forces of their own states. Still, from a macro perspective, state-run courts and police forces have probably increased the level of security worldwide.”

**Imperial Retirement**

* P368 international violence has dropped to an all-time low – since 1945 most empires (British, French, Russian) have opted for peaceful early retirement

**Pax Atomica**

* Since 1945 states no longer invade other states to conquer and swallow them up —wars are no longer the norm
* Real peace, like what we have today is not the mere absence of war but the implausibility of war—why?
  + Price of war has gone up dramatically —nuclear weapons have turned war between superpowers into collective suicide — (mutually assured destruction)
  + profits of war have declined as forms of wealth have become more abstract: human capital, technical know-how, complex socio-economic structures
  + peace has become more lucrative —foreign trade and investments have brought unique dividends
  + techtonic shift in global political culture in that for the first time in history the world is dominated by a peace-loving elite —politicians, business people, intellectuals and artists whoe genuinely see war as both evial and avoidable
  + positive feedback loop reinforces all of these factors
  + international connections have eroded the independence of most countries “lessening the chance that any one of them might single-handedly let slip the dogs of war”
  + a global empire is forming that enforces ‘peace within its borders’ P374 “And since its borders cover the entire globe, the World empire effectively enforces world peace.”

**19 And They Lived Happily Ever After**

Counting Happiness

Chemical Happiness

The Meaning of Life

Know Thyself

**20 The End of Homo Sapiens**

Of Mice and Men

The Return of the Neanderthals

Bionic Life

Another Life

The Singularity

The Frankenstein Prophecy

AFTERWORD – The Animal that Became a God

**QUESTIONS**

1. Effect of the translation quality on comprehensibility of the text.
2. Defining God as a pure product of the human imagination and then defining a god by certain characteristics: eternal youth, ability to create other beings, ability to destroy …and then ending the book with a question based on the existence of ‘gods’: “Is there anything more dangerous than dissatisfied and irresponsible gods who don’t know what they want?”

**NUGGETS**

1. Gossip

* www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015 — the origins of language, however, Harari is more certain: It evolved as a way for social animals to gossip about other people’s reputations. In addition, language allows people to communicate about abstract concepts such as religion. And religion, in turn, bonds people together and permits cooperation among much larger populations than chimpanzee troops can sustain.
* www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015 The British, for example, not only surveyed the natural resources of India but also “took the trouble to collect information about rare Indian spiders, to catalogue colorful butterflies, to trace the ancient origins of extinct Indian languages, and to dig up forgotten ruins.”
* www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015 Harari recounts, with more wonder than moralization, how the “military-industrial-scientific complex and technological wizardry” led to a period of European dominance, followed by the globalization of science and its power. He puts into perspective the truly awesome feats that humans have accomplished over the 500 years since the Scientific Revolution, such as discovering microorganisms, splitting the atom and landing on the moon.

2. Statistics re agricultural territories P99

* 155 million sq km of earth’s 510 million sq km surface is land
* 1400 AD 11 million sq km of land was cultivated = 2% = the size of the stage on which history unfolded (“artificial islands”)

3. Dissertation on the history of writing, information retrieval—catalogues, dictionaries, calendars, forms and tables, and the ‘language of numbers’ in C7 ‘Memory Overload’

4. History

* P144 ‘Most socio-political hierarchies lack a logical or biological basis—they are nothing but the perpetuation of chance events supported by myths. That is one good reason to study history.”… biology is insufficient for understanding human society.
* P238 “The better you know a particular historical period, the harder it becomes to explain why things happened one way and not another… In fact, the people who knew the period best – those alive at the time – were the most clueless of all.”
* P240 “History is a ‘level two’ chaotic system, i.e. a system that reacts to predictions about it meaning prediction can never be wholly accurate.
* P241 So why study history? Unlike physics or economics, history is not a means for making accurate predictions. We study history not to know the future but to widen our horizons, to understand that our present situation is neither natural nor inevitable, and that we consequently have many more possibilities before us than we imagine.
* P241 “There is absolutely no proof that human well-being inevitably improves as history rolls along.”
* P243 …”The dynamics of history are not directed towards enhancing human well-being. There is no basis for thinking that the most successful cultures in history are necessarily the best ones for Homo sapiens.”

5. Dissertation on the history of money in Chapter 10 —**The Scent of Money**

* How much is it?
* Shells and Cigarettes
* How Does Money Work?
* The Gospel of Gold
* The Price of Money

6. Definition of Religion = a belief in a universal superhuman order which establishes binding norms and values with an attendant missionary obligation (P210)

7. Development of statistics – Fund for the Provision for the Widows and Children of the Ministers of the Church of Scotland —history of the Scottish Widows pension and insurance companies.

8. —P275 —1768 Expedition of Captain James Cook to observe the Venus transit to help with measuring the distance between the sun and the earth — enormous quantities of other data collected and brought home — “a scientific expedition protected by a military force or a military expedition with scientists tagging along?” —SR and imperialism were inseparable

9. Marriage of Science and Empire — Dissertation on Voyages of Discovery carrying scientists

— P284 European imperialism unlike all other imperial projects hoped to obtain new knowledge along with new territories: e.g.

15th and 16th centuries: Prince Henry the Navigator, Vasco da Gama, (1492) Christopher Columbus,

Ferdinand Magellan

Late 18th century: Napoleon

1831: HMS Beagle carrying Charles Darwin on an expedition to map the coasts of South America, the Falkland Islands and the Galapagos Islands

10**.** Invasion from Outer Space — Dissertation on Spanish conquest of South America

— Cortes conquering the Aztecs in 1519 — for the Spanish “plunging into the unknown was exhilarating…” —“the Aztecs did not know how to react”

11. P360 “Millions of years of evolution have designed us to live and think as community members. Within a mere two centuries we have become alienated individuals. Nothing testifies better to the awesome power of culture.”

12. Frankenstein

* www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015 Harari then muses on where our species is headed. He considers genetic engineering, artificial intelligence and the possibility of the “singularity,” when technology may intimately integrate with or overtake us. This clear-sighted section foresees a future that will surely challenge our notion of humanity. In an especially insightful moment, the author wonders whether the story of Frankenstein, and its moral that natural humans are obviously superior to any cyborg, may be simply a comforting myth.

**LUMPS OF COAL**

1. An odd take on ‘history’:

www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015 “Perhaps the most thought-provoking aspect of “Sapiens” is the author’s questioning of whether historical revolutions have any implication for human happiness. The answer, Harari proposes, is that the evolutionary success of our species, along with the technological powers we’ve gained, has brought much individual suffering. A case in point is the Agricultural Revolution, which kept many more people alive under much worse conditions. And the Scientific Revolution has arguably given a Chinese factory worker today a harder life than his hunter-gatherer ancestors had. Like evolutionary fitness, Harari concludes, history’s successful revolutions disregard the well-being of individuals.”

P101 “History is something that very few people have been doing while everyone else was ploughing fields and carrying water buckets.”

2. An odd take on ‘society’: “ P46 Today, the society called New Zealand is composed of 4.5 million Sapiens and 500 million sheep.” …as compared to: from Wikipedia: [Sociologist](https://en.wikipedia.org/wiki/Sociology) [Peter L. Berger](https://en.wikipedia.org/wiki/Peter_L._Berger) defines society as "...a human product, and nothing but a human product, that yet continuously acts upon its producers." According to him, society was created by humans but this creation turns back and creates or molds humans every day.

3. **Baloney statements:**

P49 “The human collective knows far more today than did the ancient bands. [YES!] Bat at the individual level, ancient foragers were the most knowledgeable and skilful people in history.”[DISAGREE!]

P50 “hunter-gatherers living today in the most inhospitable of habitats—such as the Kalahari Desert— work on average for just 35 to 45 hours a week. They hunt only one day out of three, and gathering takes up just 3 to 6 hours daily. In normal times, this is enough to feed the band …On top of that, foragers enjoyed a lighter load of household chores.” — No footnotes, no authoritative backup. By definition foragers have not household chores cuz they have no houses. Is this meant to be humorous?

P50 “The forager economy provided most people with more interesting lives than agriculture or industry do.” (Seriously?)

P50 “In most places and at most times, foraging provided ideal nutrition. …ancient foragers were less likely to suffer from starvation or malnutrition and were generally taller and healthier than their peasant descendants (Authority? What is ideal nutrition? All this from fossilised skeletons?)

—P133— human history in the millennia following the AR ‘boils down to’ humans organizing themselves in mass cooperation networks, despite lacking the biological instincts necessary to sustain them by creating imagined orders and devising scripts, thereby filling in the gaps left by our biological inheritance. (What is he talking about?)

—P193 ‘A significant proportion of humanity’s cultural achievements owe their existence to the exploitation of conquered populations.”

—P216 “In contrast, over the course of the next 1,500 years, Christians slaughtered Christians by the millions to defend slightly different interpretations of the religion of love and compassion.” (Authority?)

—P219 “The monotheist religions expelled the gods through the front door with a lot of fanfare, only to take them back in through the side window. Christianity, for example, developed its own pantheon of saints, whose cults differed little from those of the polytheistic gods.”

—P229 “Some readers may feel very uncomfortable with this line of reasoning. If it makes you feel better, you are free to go on calling Communism an ideology rather than a religion. It makes no difference. …we should note that belief in gods persists within many modern ideologies and that some of them, most notably liberalism, make little sense without this belief.”

—P236“Scientists studying the inner workings of the human organism have found no soul there. They increasingly argue that human behaviour is determined by hormones, genes and synapses, rather than by free will…”

—P331“Some religions, such as Christianity and Nazism, have killed millions out of burning hatred. Capitalism has killed millions out of cold indifference coupled with greed.”

4. Like Bill Gates, I completely disagree with the assessment of the agricultural revolution as one of the biggest mistakes in human history:

[www.gatesnotes.com/Books/Sapiens-A-Brief-History-of-Humankind](http://www.gatesnotes.com/Books/Sapiens-A-Brief-History-of-Humankind) “As much as I enjoyed Sapiens, there was plenty to disagree with in the book. For example, Harari sets out to prove that the agricultural revolution was one of the biggest mistakes in human history. Yes, it allowed civilizations to thrive, but on an individual level, he writes, we were much better off as hunter-gatherers. As farmers, people had to work a lot harder and in exchange they had a worse diet than they had as foragers. Agricultural societies also created social hierarchies in which the majority toiled as peasants and a minority of elites ruled over them. …That’s certainly a provocative argument, but I wasn’t convinced. First, arguing that we were happier as hunter-gatherers than as farmers creates a choice when there isn’t one. It’s not as if we can turn back the clock and restart as hunter-gatherers or we can run an experiment to prove one way of life is better than the other. Second, I think Harari underestimates the hardships of being a hunter-gatherer. He suggests that death and violence rates were much lower in hunter-gatherer societies than after the agricultural revolution. But it’s more likely the violence was higher because of competition over resources. A farming society can support many more people per square mile than a hunter-gathering society.  In order to keep population densities low, conflict was inevitable among groups of hunter- gatherers. Finally, calling the shift to agriculture a “mistake” overlooks the fact that farming societies were able to specialize, leading to written languages, new technologies, and art—all things we value today.”

5. A manifesto disguised as a treatise and, if so, what is it advocating for? — A different set of collective imaginings i.e. not the old “imagined ‘reality’ of gods, nations and corporations”?

## *Treatise:* a [formal](https://en.wikipedia.org/wiki/Formality) and systematic written [discourse](https://en.wikipedia.org/wiki/Discourse) on some subject, generally longer and treating it in greater depth than an [essay](https://en.wikipedia.org/wiki/Essay), and more concerned with investigating or exposing the principles of the subject.

## Manifesto**:** a written statement declaring publicly the intentions, motives, or views of its issuer.

The Digression discussion in ‘The Prison Walls’ P112-118— to change an existing IO requires believing in an alternate IO P118

‘Gods’ — Buddism and meditation and not other religions including ‘liberalism’

‘Nations’ — one world order —the end of the nation state

‘Corporations’ — socialism— the collective —vegetarianism —the end of animal husbandry

and ultimately saving the planet by massively reducing the human population

6. Completely and utterly nihilistic — so depressing to contemplate that such a well-educated, learned mind capable of seeing history in such far-horizoned terms can come to such conclusions about mankind’s (*Homo sapiens’*) purpose, worthiness, and longevity

P6 “It is doubtful whether *Homo sapiens* will still be around a thousand years from now, so 2 million years is really out of our league.”

P8 It’s our current exclusivity, not that multi-species past, that is peculiar—and perhaps incriminating. As we will shortly see, we Sapiens have good reasons to repress the memory of our siblings.

P12 “Sapiens by contrast is more like a banana republic dictator. Having so recently been one of the underdogs of the savannah, we are full of fears and anxieties over our position, which makes us doubly cruel and dangerous.”

P64 “ the moment Home sapiens climbed to the top of the food chain (in Australia) he “became the deadliest species in the annals of planet Earth.” … within a few thousand years 23/24 Australian animal species weighing 50 kg or more became extinct

P71 likewise in America —within 2,000 years of Sapiens arrival most unique species were gone P72 — “ the first wave of Sapiens colonisation was one of the biggests and swiftest ecological disasters to befall the animal kingdom.”

P104 Human imagination in turn was building “astounding networks of mass cooperation, unlike any other ever seen on earth…. Most geared towards oppression and exploitation.

P392 “If happiness is based on feeling that life is meaningful, then in order to be happier we need to delude ourselves more effectively.” Meaningfulness = Effective delusion?

* P392 “the dominant religion of our age is liberalism” — followed by an utterly shallow and incomprehensible description of liberalism.

7. The ravings of a self-loathing and species-loathing narcissist.

P97 “time and again …[we see] a dramatic increase in the collective power and ostensible success of our species went hand in hand with much individual suffering.”

**AUTHOR**

Wikipedia: Yuval Noah Harari (born 24 February 1976) is an Israeli historian and a professor in the Department of History at the [Hebrew University of Jerusalem](https://en.wikipedia.org/wiki/Hebrew_University_of_Jerusalem). He is the author of the international bestsellers [Sapiens: A Brief History of Humankind](https://en.wikipedia.org/wiki/Sapiens:_A_Brief_History_of_Humankind) (2014), [Homo Deus: A Brief History of Tomorrow](https://en.wikipedia.org/wiki/Homo_Deus:_A_Brief_History_of_Tomorrow) (2016), and [21 Lessons for the 21st Century](https://en.wikipedia.org/wiki/21_Lessons_for_the_21st_Century) (2018). His writings examine [free will](https://en.wikipedia.org/wiki/Free_will), [consciousness](https://en.wikipedia.org/wiki/Consciousness), and [intelligence](https://en.wikipedia.org/wiki/Intelligence). Harari's early publications are concerned with what he describes as the "[cognitive revolution](https://en.wikipedia.org/wiki/Behavioral_modernity)" occurring roughly 50,000 years ago, when [Homo sapiens](https://en.wikipedia.org/wiki/Homo_sapiens) supplanted the rival [Neanderthals](https://en.wikipedia.org/wiki/Neanderthals), developed language skills and structured societies, and ascended as [apex predators](https://en.wikipedia.org/wiki/Apex_predator), aided by the [agricultural revolution](https://en.wikipedia.org/wiki/First_Agricultural_Revolution) and more recently accelerated by [scientific](https://en.wikipedia.org/wiki/Scientific_revolution) methodology and rationale which have allowed humans to approach near mastery over their environment. His recent books are more cautionary, and work through the consequences of a futuristic [biotechnological](https://en.wikipedia.org/wiki/Biotechnology) world where intelligent biological organisms are surpassed by their own creations; he has said "Homo sapiens as we know them will disappear in a century or so".

His book [Sapiens: A Brief History of Humankind](https://en.wikipedia.org/wiki/Sapiens:_A_Brief_History_of_Humankind) was published in Hebrew in 2011 and in English in 2014; it has since been translated into some 45 additional languages. The book surveys the entire length of [human history](https://en.wikipedia.org/wiki/Human_history), from the evolution of [Homo sapiens](https://en.wikipedia.org/wiki/Homo_sapiens) in the Stone Age up to the political and technological revolutions of the 21st century. The [Hebrew](https://en.wikipedia.org/wiki/Hebrew) edition became a bestseller in Israel, and generated much interest among the general public, turning Harari into a celebrity. YouTube video clips of Harari's Hebrew lectures on the history of the world have been viewed by tens of thousands of Israelis.

Harari is interested in how Homo sapiens reached their current condition, and in their future. His research focuses on macro-historical questions such as: What is the relation between history and biology? What is the essential difference between Homo sapiens and other animals? Is there justice in history? Does history have a direction? Did people become happier as history unfolded?

Harari regards dissatisfaction as the "deep root" of human reality, and as related to evolution. In a 2017 article, Harari has argued that through continuing technological progress and advances in the field of [artificial intelligence](https://en.wikipedia.org/wiki/Artificial_intelligence), "by 2050 a new class of people might emerge – the useless class. People who are not just unemployed, but unemployable." He put forward the case that dealing with this new social class economically, socially and politically will be a central challenge for humanity in the coming decades.

Harari has commented on the [plight of animals](https://en.wikipedia.org/wiki/Animal_welfare), particularly domesticated animals since the agricultural revolution, and is a [vegan](https://en.wikipedia.org/wiki/Vegan). In a 2015 [Guardian](https://en.wikipedia.org/wiki/The_Guardian) article under the title "Industrial farming is one of the worst crimes in history" he called "[t]he fate of industrially farmed animals [...] one of the most pressing ethical questions of our time."

Harari summed up his views on the world in a 2018 interview with Steve Paulson of [Nautilus](https://en.wikipedia.org/wiki/Nautilus_(science_magazine)) thusly: "Things are better than ever before. Things are still quite bad. Things can get much worse. This adds up to a somewhat optimistic view because if you realize things are better than before, this means we can make them even better. "

Harari wrote that although the idea of free will and the liberal values it helped consolidate "emboldened people who had to fight against the Inquisition, the divine right of kings, the KGB and the KKK", it has become dangerous in a world of a data economy, where, he argues, in reality there is no such thing, and governments and corporations are coming to know the individual better than they know themselves and "if governments and corporations succeed in hacking the human animal, the easiest people to manipulate will be those who believe in free will." Harari elaborates that "Humans certainly have a will – but it isn’t free. You cannot decide what desires you have... Every choice depends on a lot of biological, social and personal conditions that you cannot determine for yourself. I can choose what to eat, whom to marry and whom to vote for, but these choices are determined in part by my genes, my biochemistry, my gender, my family background, my national culture, etc – and I didn’t choose which genes or family to have."

**REVIEWS**

1. [www.theguardian.com/books/2014/sep/11/sapiens-brief-history-humankind-yuval-noah-harari-review](http://www.theguardian.com/books/2014/sep/11/sapiens-brief-history-humankind-yuval-noah-harari-review)

…The deep lines of the story of sapiens are fairly uncontentious, and he sets them out with verve. … Harari embeds many other momentous events, most notably the development of language: we become able to think sharply about abstract matters, cooperate in ever larger numbers, and, perhaps most crucially, gossip. There is the rise of religion and the slow overpowering of polytheisms by more or less toxic monotheisms. Then there is the evolution of money and, more importantly, credit. There is, connectedly, the spread of empires and trade as well as the rise of capitalism.

Harari swashbuckles through these vast and intricate matters in a way that is – at its best – engaging and informative. It's a neat thought that "we did not domesticate wheat. It domesticated us." There was, Harari says, "a Faustian bargain between humans and grains" in which our species "cast off its intimate symbiosis with nature and sprinted towards greed and alienation". It was a bad bargain: "the agricultural revolution was history's biggest fraud".

… He accepts the common view that the fundamental structure of our emotions and desires hasn't been touched by any of these revolutions: … At one point Harari claims that "the leading project of the scientific revolution" is the Gilgamesh Project (named after the hero of the epic who set out to destroy death): "to give humankind eternal life" or "amortality". He is sanguine about its eventual success. …

Much of Sapiens is extremely interesting, and it is often well expressed. As one reads on, however, the attractive features of the book are overwhelmed by carelessness, exaggeration and sensationalism. Never mind his standard and repeated misuse of the saying "the exception proves the rule" (it means that exceptional or rare cases test and confirm the rule, because the rule turns out to apply even in those cases). There's a kind of vandalism in Harari's sweeping judgments, his recklessness about causal connections, his hyper-Procrustean stretchings and loppings of the data. Take his account of the battle of Navarino. Starting from the fact that British investors stood to lose money if the Greeks lost their war of independence, Harari moves fast: "the bond holders' interest was the national interest, so the British organised an international fleet that, in 1827, sank the main Ottoman flotilla in the battle of Navarino. After centuries of subjugation, Greece was finally free." This is wildly distorted – and Greece was not then free. To see how bad it is, it's enough to look at the [wikipedia entry on Navarino](http://en.wikipedia.org/wiki/Battle_of_Navarino).

Harari hates "modern liberal culture", but his attack is a caricature and it boomerangs back at him. Liberal humanism, he says, "is a religion". It "does not deny the existence of God"; "all humanists worship humanity"; "a huge gulf is opening between the tenets of liberal humanism and the latest findings of the life sciences". This is silly. It's also sad to see the great Adam Smith drafted in once again as the apostle of greed.

2. [www.bethinking.org/human-life/sapiens-review](http://www.bethinking.org/human-life/sapiens-review)

Sapiens – A Critical Review, Marcus Paul — author of [The Evil That Men Do](https://www.sacristy.co.uk/books/theology/faith-injustice-church" \t "_blank) (Sacristy Press, 2016). Paul has two degrees in English and history and has enjoyed a life-long career working with students and sixth formers in universities and schools in three continents. He runs a 'School Pastor' scheme and writes and speaks about the Gospel and the Church.

## Fascinating but flawed

“Harari is a better social scientist than philosopher, logician or historian”

## Misunderstands the medieval world

## “He suggests that ‘premodern’ religion asserted that everything important to know about the world ‘was already known’ (p279) so there was no curiosity or expansion of learning. When does he think this view ceased? He makes it much too late. He gives the (imagined) example of a thirteenth-century peasant asking a priest about spiders and being rebuffed because such knowledge was not in the Bible. It’s hard to know where to begin in saying how wrong a concept this is.”

“Harari tends to draw too firm a dividing line between the medieval and modern eras”

Short-sightedly reductive

“His passage about human rights not existing in nature is exactly right, but his treatment of the US Declaration of Independence is surely completely mistaken (p123). The Declaration is an aspirational statement about the rights that ought to be accorded to each individual under the rule of law in a post-Enlightenment nation predicated upon Christian principles. Harari’s ‘translation’ is a statement about what our era (currently) believes in a post-Darwinian culture about humanity’s evolutionary drives and our ‘selfish’ genes. ‘Biology’ may tell us those things but human experience and history tell a different story: there is altruism as well as egoism; there is love as well as fear and hatred; there is morality as well as amorality. The sword is not the only way in which events and epochs have been made. Indeed, to make biology/biochemistry the final irreducible way of perceiving human behaviour, as Harari seems to do, seems tragically short-sighted.”

Displays religious illiteracy

“I’m not surprised that the book is a bestseller in a (by and large) religiously illiterate society; and though it has a lot of merit in other areas, its critique of Judaism and Christianity is not historically respectable. A mere six lines of conjecture (p242) on the emergence of monotheism from polytheism – stated as fact – is indefensible. It lacks objectivity. The great world-transforming Abrahamic religion emerging from the deserts in the early Bronze Age period (as it evidently did) with an utterly new understanding of the sole Creator God is such an enormous change. It simply can’t be ignored in this way if the educated reader is to be convinced by his reconstructions. Harari is also demonstrably very shaky in his representation of what Christians believe. For example, his contention that belief in the Devil makes Christianity dualistic (equal independent good and evil gods) is simply untenable.”

Fumbles the problem of evil

“We see another instance of Harari’s lack of objectivity in the way he deals with the problem of evil (p246). He states the well-worn idea that if we posit free will as the solution, that raises the further question: if God ‘knew in advance’ (Harari’s words) that the evil would be done why did he create the doer? … Moreover, in Christian theology God created both time and space, but exists outside them. So the Christian God does not know anything ‘in advance’ which is a term applicable only to those who live inside the time–space continuum i.e. humanity. The Christian philosopher Boethius saw this first in the sixth century; theologians know it – but apparently Harari doesn’t, and he should.”

## Ignores the resurrection

## “In common with so many, Harari is unable to explain why Christianity ‘took over the mighty Roman Empire' (p243) but calls it ‘one of history’s strangest twists’. So it is, but one explanation that should be considered is the resurrection of Christ, which of course would fully account for it – if people would give the idea a moment’s thought. But to the best of my knowledge there is no mention of it (even as an influential belief) anywhere in the book. The standard reason given for such an absence is that ‘such things don’t happen in history: dead men don’t rise.’ But that, I fear, is logically a hopeless answer. The speaker believes it didn’t happen because they have already presupposed that God is not there to do it. Drop the presupposition, and suddenly the whole situation changes: in the light of that thought it now becomes perfectly feasible that this ‘strange twist’ was part of the divine purpose. And the funny thing is that unlike other religions, this is precisely where Christianity is most insistent on its historicity.”

Has a one-sided view of the Church

“Harari is right to highlight the appalling record of human warfare and there is no point trying to excuse the Church from its part in this. … But do we really think that because everyone in Europe was labelled Catholic or Protestant (‘cuius regio, eius religio’) that the wars they fought were about religion? … As the Cambridge Modern History points out about the appalling Massacre of St Bartholomew’s Day in 1572 (which event Harari cites on p241) – the Paris mob would as soon kill Catholics as Protestants – and did. It was the result of political intrigue, sexual jealousy, human barbarism and feud. Oxford Professor Keith Ward points out ‘religious wars are a tiny minority of human conflicts’ in his book Is Religion Dangerous? If the Church is being cited as a negative influence, why, in a scholarly book, is its undeniably unrivalled positive influence over the last 300 years (not to mention all the previous years) not also cited? It’s simply not good history to ignore the good educational and social impact of the Church. Both sides need to feature.”

Philosophical fault-lines: Makes assumptions that his contention requires him to prove

“There is a larger philosophical fault-line running through the whole book which constantly threatens to break its conclusions in pieces. His whole contention is predicated on the idea that humankind is merely the product of accidental evolutionary forces and this means he is blind to seeing any real intentionality in history. It has direction certainly, but he believes it is the direction of an iceberg, not a ship. … he does what a philosopher would call ‘begging the question’. That is, he assumes from the start what his contention requires him to prove – namely that mankind is on its own and without any sort of divine direction. Harari ought to have stated his assumed position at the start, but signally failed to do so. The result is that many of his opening remarks are just unwarranted assumptions based on that grandest of all assumptions: that humanity is cut adrift on a lonely planet, itself adrift in a drifting galaxy in a dying universe. Evidence please! – that humanity is ‘nothing but’ a biological entity and that human consciousness is not a pale (and fundamentally damaged) reflection of the divine mind. … The fact that (he says) Sapiens has been around for a long time, emerged by conquest of the Neanderthals and has a bloody and violent history has no logical connection to whether or not God made him (‘her’ for Harari) into a being capable of knowing right from wrong, perceiving God in the world and developing into Michelangelo, Mozart and Mother Teresa as well as into Nero and Hitler. To insist that such sublime or devilish beings are ‘no more than’ glorified apes is to ignore the elephant in the room: the small differences in our genetic codes are the very differences that may reasonably point to divine intervention – because the result is so shockingly disproportionate between ourselves and our nearest relatives.”

## Bases his treatise on arguable assumptions

## “Here are a few short-hand examples of the author’s many assumptions to check out in context:

## ‘accidental genetic mutations…it was pure chance’ (p23)

* ‘no justice outside the common imagination of human beings’ (p31)
* ‘things that really exist’ (p35) — This last is such a huge leap of unwarranted faith. His concept of what ‘really exists’ seems to be ‘anything material’ but, in his opinion, nothing beyond this does ‘exist’ (his word). Actually, humans are mostly sure that immaterial things certainly exist: love, jealousy, rage, poverty, wealth, for starters. Dark matter also may make up most of the universe – it exists, we are told, but we can’t measure it.
* our ‘subjective well-being is not determined by external parameters’— Harari’s final chapters are quite brilliant in their range and depth and hugely interesting about the possible future with the advent of AI – with or without Sapiens. His rendition, however, of how biologists see the human condition is as one-sided as his treatment of earlier topics. To say that our ‘subjective well-being is not determined by external parameters’ (p432) but by ‘serotonin, dopamine and oxytocin’ is to take the behaviourist view to the exclusion of all other biochemical/psychiatric science. Recent studies have concluded that human behaviour and well-being are the result not just of the amount of serotonin etc that we have in our bodies, but that our response to external events actually alters the amount of serotonin, dopamine etc which our bodies produce. It is two-way traffic. Our choices therefore are central. The way we behave actually affects our body chemistry, as well as vice versa. Harari is averse to using the word ‘mind’ and prefers ‘brain’ but the jury is out about whether/how these two co-exist. There is one glance at this idea on page 458: without dismissing it he allows it precisely four lines, which for such a major ‘game-changer’ to the whole argument is a deeply worrying omission.”
* ‘The Meaning of Life’ —“I liked his bold discussion about the questions of human happiness that historians and others are not asking, but was surprised by his two pages on ‘The Meaning of Life’ which I thought slightly disingenuous. ‘From a purely scientific viewpoint, human life has absolutely no meaning … Our actions are not part of some divine cosmic plan.’ (p438, my italics). Science is about physical facts not meaning; we look to philosophy, history, religion and ethics for that. Harari’s second sentence is a non-sequitur – an inference that does not follow from the premise. God’s ‘cosmic plan’ may well be to use the universe he has set up to create beings both on earth and beyond (in time and eternity) which are glorious beyond our wildest dreams. I rather think he has already – when I consider what Sapiens has achieved.

…But provides a curiously encouraging end:

“I found the very last page of the book curiously encouraging: “We are more powerful than ever before…Worse still, humans seem to be more irresponsible than ever. Self-made gods with only the laws of physics to keep us company, we are accountable to no one. (p466)” … Exactly! Time then for a change. Better to live in a world where we are accountable – to a just and loving God.

“Harari is a brilliant writer, but one with a very decided agenda. He is excellent within his field but spreads his net too wide till some of the mesh breaks – allowing all sorts of confusing foreign bodies to pass in and out – and muddies the water. His failure to think clearly and objectively in areas outside his field will leave educated Christians unimpressed.”

## 3. www.washingtonpost.com/opinions/our-kind-of-people/ By Avi Tuschman March 13, 2015

## “Throughout the book, Harari’s formidable intellect sheds light on the biggest breakthroughs in the human story. Yet numerous parts of “Sapiens” reflect an inner conflict between the author’s freethinking scientific mind and a fuzzier worldview hobbled by political correctness. On the one hand, he champions cultural relativism by arguing that “history declared its independence from biology” at the time of the prehistoric Cognitive Revolution. On the other hand, he asserts that human behavior is governed by genes and biochemical algorithms. …This confusion resurfaces numerous times in “Sapiens.” For instance, Harari insists at multiple points that social hierarchies and moral emotions (such as the idea of fairness) exist only in the human imagination. Here he ignores much primatological research on rank, as well as the fact that various forms of altruism analogous to our own also exist among apes and monkeys. And he concedes elsewhere that ability may play some small role in human hierarchies.”

4. [www.thenewatlantis.com/publications/a-reductionist-history-of-humankind](http://www.thenewatlantis.com/publications/a-reductionist-history-of-humankind)

by [**John Sexton**](https://www.thenewatlantis.com/authors/john-sexton)  a graduate student in the Committee on Social Thought at the University of Chicago.

“a speculative reconstruction of human evolution, supplemented by the author’s thoughts on recorded history and the human condition. The book is fundamentally unserious and undeserving of the wide acclaim and attention it has been receiving. But it is worth considering the book’s blind spots and flaws — the better to understand the weaknesses of the genre and the intellectual temptations of our age. … In particular, Harari’s claim that a “huge gulf is opening between the tenets of liberal humanism and the latest findings of the life sciences, a gulf we cannot ignore much longer,” should trouble readers who acknowledge modern science as the highest authority while remaining committed to liberal notions of individual rights, freedom, and equality. Likewise, Harari’s account of the roles that war and empire have played in making the modern world, and of the immeasurable cost in human and animal suffering entailed in the Agricultural and Industrial Revolutions, is meant to challenge those for whom history is simply the rise of the human race from barbarism into light. Despite all our material comforts, we moderns are not even happier than pre-moderns, Harari suggests — though, tellingly, he reaches this conclusion not by contrasting the reality of modern lives with a classical understanding of happiness as the state achieved by those who live good lives in accord with their nature, but from opinion surveys and the findings of the new “science” of happiness. … This reliance on science, or what purports to be science, at the expense of literature, philosophy, or even his own observation, makes Harari’s account of human history nevertheless conventional in a decisive sense. The primacy of science — that is, of the modern physical and biological sciences, and their spillover into the social sciences — is the first article of faith for progressives, however skeptical they may be of pure moral progress. Harari is so committed to a scientific view of human history that he never seems to question whether a method invented to understand and master nature is really suited to understanding fully the nature of man himself, and whether man is the same kind of object as many of the others that science studies.

… Harari breezes through some other great and mysterious matters, including the development of language, the rise of religion and the gradual triumph of monotheism, the invention of money, and the growth of empires. And he makes a number of striking claims:

• Prior to the start of the Cognitive Revolution around 70,000 years ago, when humans started making things up, they were an unremarkable species in the middle of the food chain; it was only after the Revolution that large-scale social cooperation became possible through fictions.

• Modern science distinguishes itself from all preceding traditions in its “willingness to admit ignorance.” In fact, the “discovery that humans do not know the answers to their most important questions” is what “launched the Scientific Revolution.”

• Humans’ mastery over nature, especially in the form of industry and the market, has freed us from many forms of drudgery but has also helped to alienate us from each other and to bind us to industry and technology. The state and market now act as — often inadequate — replacements for lost communal bonds.

• All behavior and “whatever is possible” is by definition natural, because nothing can go against the laws of nature. Any behavior we might call “unnatural” is so only by virtue of cultural norms, not biology. The distinction between natural and unnatural is an invention of Christian theology.

• Liberal humanism is a religion founded on “monotheist beliefs.”

• The nation-state is declining in power and we are on our way to a “global empire” with one culture.

• Current developments in biotechnology may lead to the end for us sapiens: we will replace ourselves with bioengineered post-humans, immortal cyborgs who will be as different from us as we are from other species.

These claims are interesting, if dubious. Much of the book is less interesting. To borrow Oscar Wilde’s phrase, Harari “hunts down the obvious with the enthusiasm of a short-sighted detective.”

… Harari’s relativism, too, is inconsistent, and like many people who preach that morality is an illusion, Harari has a moralizing streak. Several times throughout the book he upbraids the human race for its treatment of the natural environment and of other species. We rule over the planet like “a banana republic dictator,” he says, and “if we knew how many species we’ve already eradicated, we might be more motivated to protect those that still survive.” “Modern industrial agriculture,” he writes, “might well be the greatest crime in history.”

Why? Given Harari’s assumptions, what could motivate us to preserve other species, apart from a concern for our self-interest or some kind of aesthetic preference, which would not apply on many occasions and would hardly amount to a moral imperative in any case? Only the notion that humans are in some sense the stewards of the Earth could provide such an imperative, and only a lingering sense of sin can account for Harari’s judgment on the human race.

… One of the themes of Sapiens is how religious ideas are carried on more or less unconsciously by modern people who do not consider themselves religious. It is therefore ironic that Harari’s depiction of the human conquest of the Earth echoes the Genesis story. The original Cognitive Revolution is the story of Adam and Eve eating of the fruit of the Tree of Knowledge, with ambiguous results. The Agricultural Revolution is the story of Cain and Abel: the first person to till the soil committed a crime that overshadows the world to this day. The Scientific Revolution is the story of the Tower of Babel: humans reached for the sky with dangerous consequences. Today, humans are “self-made gods” who are “irresponsible” and “discontented,” and, at best, no happier than their hunter-gatherer ancestors who lived in Edenic natural ignorance.

Some of the resemblance to the Genesis account was clearly intentional, with chapter titles such as “The Tree of Knowledge,” “A Day in the Life of Adam and Eve,” and “The Flood.” But if Harari’s sense of religion were not so crushingly literal, the resemblance between his account of human history and those found in the Bible and other religious texts might have caused him to reflect on the nature of religion and its “fictions.” Harari takes it for granted that religion can be understood entirely in terms of its social and political functions, and that all of its theological and metaphysical claims are simply false. Nonetheless, his version of human history involves moral judgments that suggest he is not so thoroughly reductionist, or as cynical about the human condition, as he appears to be at first glance. In addition to his moralizing about the environment, for example, he also concedes that not all social and political hierarchies are “morally identical.”

… Harari is skeptical of progress and rejects the claim that humans are beings possessing unique dignity. The belief that “every individual has a sacred inner nature, indivisible and immutable ... which is the source of all ethical and political authority,” is not derived from science, but is a “reincarnation of the traditional Christian belief in a free and eternal soul.” Indeed, he believes that the scientific worldview is increasingly incompatible with the liberal worldview that is in turn derived from the Christian worldview, because “scientists studying the inner workings of the human organism have found no soul there,” and “they increasingly argue that human behavior is determined by hormones, genes and synapses, rather than by free will.”

… Harari’s view of culture and of ethical norms as fundamentally fictional makes impossible any coherent moral framework for thinking about and shaping our future. And it asks us to pretend that we are not what we know ourselves to be — thinking and feeling subjects, moral agents with free will, and social beings whose culture builds upon the facts of the physical world but is not limited to them.

#### 5. hackernoon.com/five-things-i-learned-from-reading-sapiens-6ae97a52c45f5.

#### 1. The power of shared fictions

#### The success of homo sapiens relies on the ability to create “shared fictions.” Shared fictions are commonly held beliefs in fictional entities. For example, belief in the power of money is a “shared fiction”: dollar bills themselves are meaningless pieces of paper without the financial institution’s promise. In early history, these shared fictions were centered around polytheistic gods, but in modern day society they include companies, morals, and political systems. These systems allow our species to operate more efficiently and collaboratively.

#### 2. Luxuries become necessities

#### Throughout Sapiens, there’s a persistent theme about how humans continue to allow their luxuries to become necessities. … Wheat domesticated humans as humans domesticated wheat. **Wheat** farming was beneficial for sedentary lifestyles — but after humans established sedentary lifestyles, they had no choice but to continue farming, …Similarly, **writing** allowed humans to store ideas and thoughts outside of their brains. This is greatly helpful to pass information from generation to generation, and to record financial transactions. However, as writing’s popularity grew, it not only became a necessity for all transactions and information storage, but it also has actually changed the way homo sapiens think. A similar effect occurs today in the Google Era, where we no longer remember information snippets, instead remembering where to obtain the information.

#### 3. Everything is “natural”

#### Harari breaks down what it means for something to be “natural” (for instance, with respect to homosexuality)…. “In truth, our concepts ‘natural’ and ‘unnatural’ are taken not from biology, but from Christian theology. The theological meaning of ‘natural’ is ‘in accordance with the intentions of the God who created nature… To use [our body] differently than God intends is ‘unnatural.’ But evolution has no purpose.”… Instead, he argues, everything we do is technically “natural” — nothing we do as a species can be biologically unnatural, since everything is derived from nature.

#### 4. Spreadability and favorability are distinct

“The currency of evolution is neither hunger nor pain, but rather copies of DNA helixes.”… Very often, we mistake the spreadability of an idea with whether or not it’s beneficial. This comes up in several instances throughout history….**Farming** was spreadable because it allowed families to feed more children, thereby increasing reproductive rates. However, the average farmer worked harder for more hours than the average forager, and ate a less nutritious diet. As Harari mentions, “The Agricultural Revolution was history’s biggest fraud.” Its success was more due to the ease with which it replicated more homo sapiens, thereby allowing it spread more, despite detracting from humans’ quality of life….**Monotheism** is more spreadable than polytheism. When two humans of opposing polytheistic views encounter one another, it’s still possible to allow their gods to coexist. However, monotheism often includes “spreading the word” as a key doctrine. When a monotheist meets a polytheist, there isn’t any room for compromise, and the monotheist is incentivized to convert the polytheist, thereby spreading the religion more.”

5. Happiness’s relationship to meaningfulness

Harari covers several theories of happiness. One such tenable theory is that happiness is closely tied to meaningfulness…. “The scientist who says her life is meaningful because she increases the store of human knowledge, the soldier who declares that his life is meaningful because he fights to defend his homeland, and the entrepreneur who finds meaning in building a new company are no less delusional than their medieval counterparts who found meaning in reading scriptures, going on a crusade or building a new cathedral.”