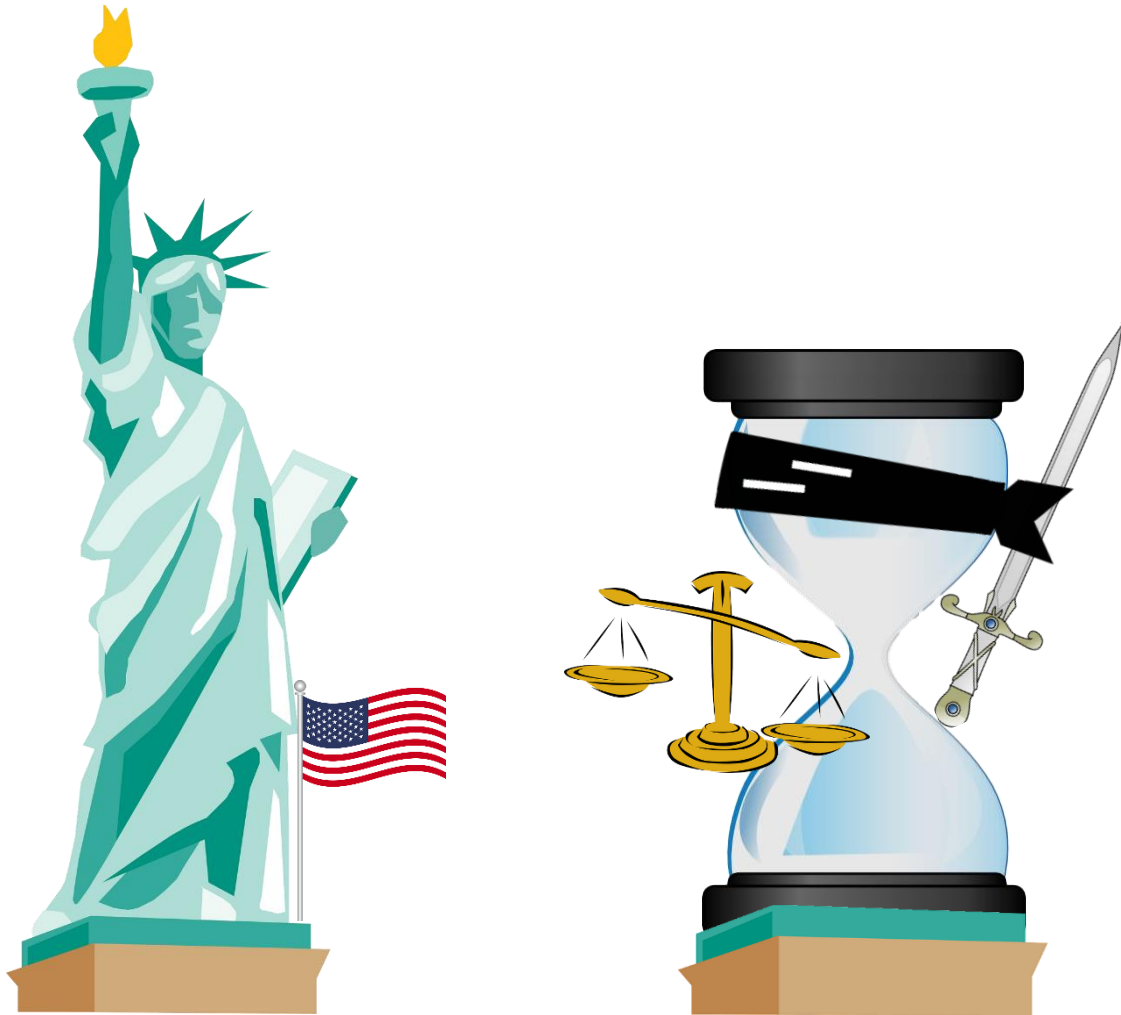


CHAPTER 10²: THE LAST FEW CENTURIES

(THE 18TH CENTURY – THE 1980s)



A century-glass would be about 100 feet tall, almost as tall as the Statue of Liberty. The flagpole is 40 feet tall, the scale of the Chapter 1 hourglass. Ladies Liberty and Justice were major icons of the last few centuries, as ordinary citizens began to liberate themselves from monarchs and then wrestled with how to govern themselves.

[Click here for image attributions.](#) ¹

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I. Introduction

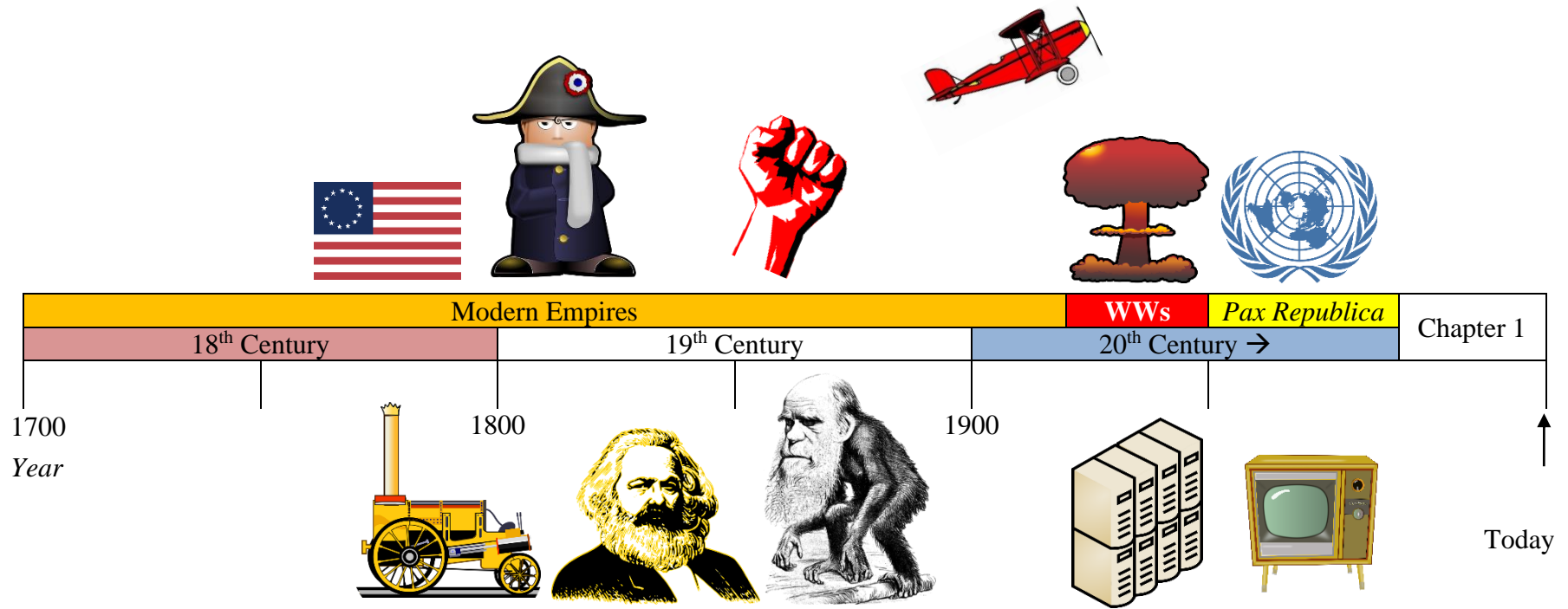
How did society get divided into a political “left” and “right” that see the world so differently? Why are we surrounded by so many more technological wonders than our great-grandparents were? Do giant corporations control the world? Whatever happened to the traditional nuclear family? Is the human species on the verge of self-destruction?

Chapter Two is organized around the three predominant threads of “modern” history: the Enlightenment, the Industrial Revolution, and the world wars. Enlightened “free” countries rejected the divine right of kings and replaced it with popular sovereignty. The emphasis was on class or national rights in the 18th – 19th centuries and individual rights after WWII. Liberation from kings is only a first step, though. Self-rule necessitates a never-ending debate about our own ends and means.

In the Industrial Revolution, engines powered by fossil fuels greatly multiplied the speed and scale of labor. Machines made better machines. Some of these machines were designed to automate or accelerate routine operations, a branch of technology that led directly to computers. Industry has progressed exponentially, and it has radically affected all walks of life in unanticipated ways.

We have all studied the world wars – the largest of all time – in history class. They still strongly haunt us, and we still tend to think about them in terms of nationalist good-vs-evil propaganda. What were the wars really about? How could anyone possibly accept such large-scale violence, and what does this say about human nature? The wars permanently changed the world; have we learned to prevent WWIII?

The final section examines modern society from the perspective of ordinary people. From urbanization to universal human rights and that head-spinning decade of the 1960s, new lifestyles changed the world from the ground up. This was the period when “we the people” stole the show.



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II. The Enlightenment And Its Revolutions

A. What is Enlightenment?

The 18th century is usually called the “Age of Enlightenment” in Europe. “What is enlightenment?” was the theme of a German essay competition in 1784. Immanuel Kant’s famous response opened with the motto, “Have the courage to use your own understanding,” and concluded with, “At last, free thought acts even on the fundamentals of government.”³ In the Enlightenment, the torch of reason that had been ignited in science and mathematics was held up to the church and state.

There was good reason to apply free thought to government, especially to question authority. Wealth and power were concentrated in a small class of monarchs, nobles, and priests.⁴ The power struggles among them held undue sway on the fortunes of ordinary people. The advent of reason encouraged writers and thinkers (*philosophes*) to ask if might really makes right. They asked bold questions such as, “Can citizens govern themselves? Should the church be involved in matters of state? Do monarchs really have a divine right to rule? In fact, how much about divinity can we really know at all?”

Like the Reformation before it, the Enlightenment spread through literacy. Books, pamphlets, and newspapers influenced an increasingly important public opinion. Some of the most widely read Enlightenment writers were Hume and Smith in Scotland, Rousseau and Voltaire in France, and Franklin and Paine in America. Denis Diderot supervised publication of France’s great *Encyclopedie*. Gathering the nation’s collective knowledge into a single source that could be consulted by everyone, it was created in the same spirit as personal computers and the internet 200 years later. Meanwhile, amateur *philosophes* found community in private forums like salons, coffeehouses, and masonic lodges.

Seventeenth century philosophers such as John Locke had provided an inspiring template for ideal government. Locke wrote about separation of powers, including the church from the state. He expressed the *liberal* viewpoint that legitimacy to rule does not come from above but from below. Divine right should be replaced by a *social contract* detailing the consent of the governed. He listed the natural human rights as life, liberty, and property⁵ and argued that, if

government does not protect these rights, rebellion is justified. His words were directed backward to the English Civil War, but they reverberated well into the future.

The post-Renaissance public was passionate about applying reason to the political sphere. Of course, this was easier said than done. Europe's traditions were ancient, and its dynasties were entrenched. Most dissidents felt safer meeting in secret to avoid trouble with authorities. The final key to Enlightenment success was the availability of a new continent on which to test its principles.

B. The American Revolution

By the 1760s, England's American colonies felt the strains of imperial oppression. London had been taxing and regulating colonial trade, without giving colonists votes or seats in Parliament, since the 1660s. Americans had mostly circumvented tariffs with widespread smuggling. Parliament had imposed increasingly stringent laws to deter smuggling and enforce taxes. Some of these laws had given courts and the military undue power over citizens. The pace of this cat-and-mouse game accelerated after the costly French and Indian War (1754 – '63), when the crown became desperate for revenue.

The Americans' response to "taxation without representation" went through a significant change of spirit within the next decade. The first time the colonies assembled together, in the Stamp Act Congress of 1765, their petition to England was a comparatively polite plea that recent taxes were "unconstitutional" according to British law. * Nine years later, colonists formed the First Continental Congress as a permanent body to represent their common interests. This congress included such iconic founding fathers as Washington, Hancock, Henry, and Samuel Adams. The First Continental Congress issued a *Declaration of Resolves*, which was the real philosophical turning point of the revolution. This time around, congress did not appeal to British legal principles, but lay claim to a higher power altogether. All men, it wrote, have natural rights that no government can overrule. The Declaration of Resolves concluded that a particular set of recent British acts must be repealed for violating natural law. It is obvious that these representatives had spent the early 1770s steeping themselves in Enlightenment literature.

* In the United Kingdom, the "constitution" refers to the entire body of law overall, not any single authoritative document.

The conflict soon came to arms. Rallied by Thomas Paine in 1776, the colonies were then swept by a collective decision that England itself had lost legitimacy as a governing body.⁶ The Second Continental Congress declared independence that summer, though the Americans and French had to fight for eight years to dislodge the British military from the newly independent nation.

If the American Revolution had been merely about colonies' independence from an empirical central government, it would have been just another grudge match. What made it unique was that it stood on liberal principles of democracy, natural rights, and the consent of the governed. Americans did not replace the old king with a new one. The United States became the first modern *republic*, a nation that elects its own rulers. Congress set about writing a real-life example of a social contract between the people and the government. The first form of this contract, the Articles of Confederation, was replaced by the current US Constitution in 1787.

C. The French Revolution

The French Revolution was an attempt to duplicate the American example, and initially it shared many similarities. France was going bankrupt after its expensive American campaign. King Louis XVI sought revenue with new taxes on the upper classes, who would have no part of it. Desperate and on the verge of bankruptcy, the king called a national assembly to reorganize the nation's finances in 1789. To everyone's surprise, the emerging middle class seized control of this assembly and took advantage of the moment to craft a *Declaration of Rights and Man* and a new constitution that gave voice to the people.

France desperately needed reform. The king and the upper classes had been exploiting the lower classes unsustainably, and it was a failed state by that time. However, the country was not ready for such breakneck change. The rebels had no experience at government. They alienated the church and threw out entire institutions without forethought about consequences. Social experiments such as the first constitution failed. The new "enlightened" government was seized by radicals called *Jacobins*, who took the extreme measure of executing Louis XVI. Before too long, there was a growing backlash from counter-revolutionary conservatives. France was plunged into civil war. The Jacobin party engaged in a hideous *Reign of Terror*, murdering tens of thousands of political opponents.

The monarchs of Europe, terrified of this revolutionary mania, intervened to control it and to try restoring the Bourbon Dynasty in France. This led to a series of French Revolutionary Wars involving England, Russia, the Holy Roman Empire, and other nations. By the end of the 1790s, the entire continent was traumatized and in turmoil.

One profound effect of the revolution and its wars was a sense of ***nationalism*** among French citizens. For the first time, they were fighting for themselves rather than for a king. They began to identify themselves with the French nation-state. The military grew stronger, not only because of governmental reforms but also because of the soldiers' fervor. Neighboring nations caught this French fever of nationalism. By necessity, it had to be a militaristic nationalism so they could defend themselves against each other.

This was the tide that brought Napoleon to power in 1799. Though he called himself emperor, it makes more sense to regard Napoleon as the first modern dictator.⁷ He did not come from a royal family but was promoted within the military and then gamed the wobbly new democratic system.⁸

Napoleon conscripted a national army into the world's most powerful land force. He then began a campaign of French expansionism. His objectives were to secure France to its "natural borders", to eliminate the belligerent governments around him, and even, ironically, to spread liberalism by force. By 1815, an allied coalition was finally able to capture Napoleon. France, like the rest of Europe, reverted to royal rule once again – but the spirit of democracy was not forgotten.

D. The Free World in Incubation

The American and French Revolutions were the first major experiments in nationalism and liberal democracy. With such mixed results, they left the rest of the world in a state of confusion for the next century. Both revolutions offered a sharp distinction between conservative "right" and liberal "left" ideologies, which has come to characterize all self-governing nations. This metaphor originated with the literal seating arrangement at the 1789 French National Assembly.

For the European right, the French Revolution demonstrated that liberal ideals led to chaos and violence. The conservative theory was that only an absolute dictator could hold a

nation together.⁹ After Napoleon was defeated, Austria, Prussia, and Russia formed a *Holy Alliance* committed to stabilizing monarchies and quelling revolutions.

That did not keep liberalism from spreading underground. A series of revolutions peaked in the *Spring Of Nations* in 1848 – ’49. Nationalists sought unity and independence from foreign rule. Nobles fought for a greater share of state control from monarchs, while the middle and working classes sought equality with nobles. Liberals fought for self-rule. Nationalism was much more successful than democracy. By 1900, several new nations were on the map, including Germany, Italy, Belgium, and Serbia.¹⁰ Only Switzerland, France, and Portugal were republics by the eve of WWI.

Liberal reforms continued piecemeal through the continent. Some countries adopted an English-style *constitutional monarchy*, where the king’s power was limited by the rule of law or parliament. Others borrowed from the *Napoleonic Code*, which had pulled France out of chaos. Napoleon’s reforms of law¹¹ and public education¹² have had lasting worldwide influence.

By 1825, almost all of Latin America had claimed independence from Spain and Portugal. Most of the new South American nations of the 19th century aspired to republicanism, but they set up weak governments easily exploited by small wealthy classes or Napoleonic dictators. Even the enlightened South American liberator, Simon Bolivar, became an unpopular autocratic ruler. Civil wars were common.

In the United States, too, the coherence of the nation was threatened by a massive civil war. The central conflict was the balance of power between individual states and the federal government, especially on the issue of slavery. Abraham Lincoln made it his mission to keep the country together. He was deeply concerned that, if the United States fell apart, it would prove democracy unworkable. His famous Gettysburg address concludes, “we here highly resolve that ... government of the people, by the people, and for the people shall not perish from the earth.”

13

Between the Civil War and WWI, the US made significant political changes. The 13th – 17th constitutional amendments demonstrated the trends toward truer democracy and a stronger central government. * The American economy quickly grew to the world’s largest.

* 13th = Abolition of slavery nationwide (1865); 14th = Equal protection of law (1868); 15th = Vote extended to all races (1870); 16th = Federal income tax (1913); 17th = Direct election of senators (1913)

E. Secularism and Atheism

Besides statecraft, the other important legacy of the Enlightenment was the application of reason toward religion. Prior to the 18th century, the whole world was religious but for isolated places, times, and individuals. The Enlightenment sparked a complete revolution in the way educated people think about religion.

The rise of “free thinking” has occurred in at least four phases, some of which were discussed in Chapter 3. First was the challenge to the Catholic Church’s monopoly on European church and state functions. Some American states, and then the US, were the first *secular* governments with no state religion at all. The second phase was an experimentation with untraditional concepts of God, influenced largely by 17th-century Dutch author Baruch Spinoza. These political and philosophical matters alone did not cause any widespread doubts about God’s existence before 1700.

The third and most significant phase was a centuries-long flood of scientific observations. Major breakthroughs in biology, chemistry, geology, and astronomy cast serious doubts on mythological models of the universe. Some findings conflicted directly with scripture: Earth and life were formed over billions of years, not in one week a few thousand years ago. More subtly, science continued to replace supernatural assumptions with natural explanations. Newton had shown how planetary motion was a natural result of gravity. Like clockwork, celestial bodies did not require divine will. Scientists continued to make such discoveries: a few big ones and countless small ones. By the 1800s, it had become commonplace understanding that unconscious “inert” particles and forces of nature can account for incredibly complex phenomena, including life functions. Even the greatest mysteries of science are just the last links in long chains of natural explanations. All the while, there is still no convincing theory of what spirits would be or how they would influence the physical world with magic willpower. Carrying these thoughts through to their logical ends, *atheism* teaches that nature is completely self-contained and that supernatural causes are only an illusion, a product of human imagination.

The fourth phase of atheism, of which this book is a part, is the psychology of that imagination – the study of how and why people think religiously. We now understand that animism is the default, instinctive human outlook. It takes difficult training in science to depersonify nature and reckon with it on its own inhuman terms. Religion, despite its fallacies, is simple and comforting. It is easy for children to believe and difficult for adults to abandon.

Although the “unaffiliated” are now the third largest religious group in the world,¹⁴ they are still a minority position in every country.¹⁵ Right or wrong, atheism is not natural for the human mind, and it has always carried a strong stigma.¹⁶ It started to become socially acceptable only in small intellectual circles by the 1770s.¹⁷ The conservative concern was that, without fear of God’s punishment, atheists would have no incentive to behave morally.¹⁸ To the contrary, today’s least religious countries are among the wealthiest and most peaceful.¹⁹ Righteous behavior can be enforced by law or by reputation in the community.

Secular legal systems have had to deal with the fascinating question of “why” proscribed activity is immoral. Some moral values have persisted not because they are inherently noble but simply because they reproduce successfully in the meme pool. A culture that sent its women to war while the men stayed home and had sex with each other would die out pretty quickly. We do not have these values, simply because we could not possibly have inherited them from ancestors. But does that make it “immoral” for women to serve in combat, or for gay men to be honest about their sexuality? Are these matters of brute survival still relevant in today’s world? These are questions that are still being worked out in courts of law and public opinion.

Most post-Enlightenment religions have downplayed ancient mythology. New Age religion vaguely associates God with “the universe”. Conspiracy theorists blame evil on secret societies of the rich and powerful.* This continuous updating of religious models shows that faith and superstition are unquenchable instincts.

F. The Existentialism of Democracy

Most people consider the modern transition to democracy to be a positive trend.²⁰ But, as anyone who’s made New Year’s resolutions knows, what’s healthy ain’t necessarily easy! Self-governance, even in the best circumstances, presents something of an existential crisis for an emerging democracy. The ancient Greeks already wrung their hands over problems like “idiocracy”.[†]²¹ National governance is extremely complicated. Even the brightest minds and

* Chapter 1 will further elaborate on conspiracism as a modern expression of politico-religious thought.

† More politely called “populism”.

the most selfless souls will never manage it perfectly. As we expand suffrage, the electorate actually resembles the broadest, lowest base of the educational pyramid. These are the voters who are easiest to manipulate with scare tactics, over-simplifications, and short-term promises. *

Modern democratization faces even more challenges because of its timing. It is emerging at the same time as science, secularism, and globalism, which compete confusingly with organized religion and national identity. The value of organized religion is that it holds its people together with a shared reality. What do we do when the people can't even agree on what's real? Should we base policy on science and global goodwill, or on covenants, prophecies, and mandates of Heaven? Should we fatalistically accept God's will for us, or should people take a proactive role in managing the environment? These are among the hardest soul-searching questions that pluralistic nations still struggle with today.

Finally, mass migration and global integration make the question of "Who are we?" more difficult for nations to answer. All the standard indicators of nationality are getting blurred. These days, it is common to find different birth countries, religions, languages, or skin tones in the same family! What we call nation-states are becoming *de facto* country-states, defined primarily by their borders and their laws. Meanwhile, we are increasingly in need of a worldwide shared reality, a task larger than any single religion. That's why the elements of our nascent global culture – like capitalism, technology, and the Olympics – are secular.

III. Industry

A. The Industrial Revolution

After the dawn of agriculture, most ordinary people's lives didn't change much for millennia. Even as late as 1750, they labored manually on farms or in small villages, vulnerable to nature, with no electricity or running water. Suddenly by 1900, they had telephones, movies, trains, canned food, and headache pills! The environment became decidedly man-made and tailored to human desires. The *Industrial Revolution* is a broad term for these changes that took place late in the 2nd millennium.

* Plato refers to this as demagoguery, the natural transition from democracy to tyranny, which Athens saw more than once.

18th century Great Britain was the birthplace of industry, and the British Isle remained the only industrialized region for decades. The definitive industrial breakthrough was the steam engine. James Watt and other engineers designed the first engines suitable for heavy use. Burning coal powered the steam engines for factories, trains, steamboats, and pumps. Eventually, British “state secrets” of industrial engineering got out to those nations eager and able to achieve the same kind of economic growth. Factories appeared in Germany, Belgium, France, and the United States after 1800.

Industry quickly became self-aggrandizing. Trains needed tracks, which needed steel. Steel refineries required coal, which had to be shipped in trains and steamboats. Factories brought workers to the cities. The laborers required a large supply of housing, food, and clothing, which stimulated more industry. This cycle of needs and industrial solutions kickstarted economies into high gear. In terms of health, wealth, and freedom, the two centuries since the Industrial Revolution have been the most transformative time since agriculture itself²² – literally the greatest thing since sliced bread.

With growth came growing pains. Industrialization was a difficult transition for large segments of society. Many craft workers were displaced by factories. Wages were low and hours were long. Factories were dangerous and unhealthy. Children, who had always been part of the work force at home, were easily exploited. Governments gradually stepped in to regulate the workplace. Children were increasingly taken out of farms and factories into schools, which revamped the curriculum to prepare kids for their industrial future.

The influx of workers to the cities was one of the most profound social changes of the times. Families down on their luck on the farm were drawn to factory jobs. They migrated to the cities at such a high rate that England was half urban by 1850. The rest of the world has followed a similar pattern since then. The city and countryside are more different than ever before, but also more equal in size and more inescapably integrated in national politics. Many developed nations are now struggling greatly with a rural / urban cultural divide.²³

A second wave of innovations swept the world in the late 19th century. Oil became a major new source of energy, and lines carried electricity from power plants. Gas-burning engines liberated machinery from factories. In this period, the United States became the largest national economy²⁴, while Russia and Japan joined the industrial ranks.²⁵

As the “northern” industrial nations needed natural resources beyond their borders, they turned to the regions of the non-industrial “south”. European countries imported heavily from Africa, the US from Latin America, and Japan from Southeast Asia. Trade was asymmetric; most profits flowed to the northern manufacturers.

Since the world wars, a wave of newly industrialized countries has joined the roster. Meanwhile, the older industrial economies experienced great growth in the *service sector*, driven by the increase of discretionary income. By the mid-20th century, a majority of the American economy was devoted to services ²⁶ such as transportation, trade, health, education, and law. Another 20th century trend was industrial environmentalism. Governments became increasingly active in regulating corporations for the sake of public health and safety. ²⁷

The industrialization of the world has still not reached equilibrium. Each decade, a few new undeveloped nations become more industrial, the most developed countries become more service oriented, and the least developed get left further behind. It will never be possible or necessary for every nation to be a manufacturing powerhouse. Instead, modern economists recognize the value of specialization and trade. A region that is particularly good at growing crops or producing oil should specialize in exporting those commodities. Unfortunately, such *extraction economies* are easily exploited by corrupt local governments. ²⁸

B. Socialism

As revolutionary fervor continued to sweep Europe in the 19th century, it bore one significant difference to the earlier American model: the industrial environment. The working class grew significantly with new jobs in factories, mines, shipyards, and more. The industrialized revolutionary spirit inspired *socialism*, an alternative vision of democracy ²⁹ that would serve the needs of wage laborers. The most influential socialist was *Karl Marx*, a philosopher, labor leader, and author of *The Communist Manifesto* and *Capital*. * At the most practical level, Marx questioned the fairness of a system that entitled laborers to so little reward for their hard work. His complete theory was much more convoluted than that (reading like a

* Marx’s collaborator Friedrich Engels deserves equal credit, but these two worked together so closely that they are usually lumped together under Marx’s name.

cross between biblical prophecy and science fiction) and his legacy has been immensely complicated.

Marx's point of view was shaped by his place in history. Born in 1818, he grew up when industry was still new and factory work, the apparent wave of the future, was truly exploitative. Dead by 1883, he never saw democracy in Europe. In fact, he witnessed multiple failed revolutions including the Spring of Nations. States were still managed by monarchs, small bands of aristocrats, and increasingly a few corporate tycoons. These right-wing governments generally prohibited organized labor, forcefully put down strikes, and were even reluctant to regulate fair wages and working conditions.

Influenced by this environment, Marx described Europe's past and future as a cycle of class conflict. The way he perceived capitalism, the value of manufactured goods was created by the "accumulated labor"³⁰ of factory workers, who earned no ownership in the goods and only made the factory owners wealthy. This, he believed, was not only immoral but unsustainable. He predicted that capitalism would fail as surely as monarchism, and a socialist revolution would inevitably bring workers to power. Socialists would eliminate private ownership and wage exploitation; society's "means of production"³¹ would be held in trust by government for the equal benefit of everyone. Eventually, the classes would equilibrate, and government would no longer be necessary. In the final phase, society would live as a homogeneous, decentralized commune, hence the term *communism*.

In retrospect, the details in Marx's model were seriously flawed. Industry actually lifted most working poor into a content middle class. Though he owned stock himself, Marx failed to see the potential of the stock market to distribute corporate wealth to ordinary people. His vision of communism was vague and idealistic, seeming to assume that self-interest would miraculously vanish. Nevertheless, the spread of abstract Marxist principles after his lifetime made him one of the most influential people of the modern world.

The *Russian Revolution* of 1917 has been the only successful workers' revolution in an industrialized nation. Like earlier post-enlightenment revolutions, it was a movement for liberation from tyranny. The Russian *tsars* refused to compromise their power with instruments such as a constitution or a parliament. Between the 1860s and 1910s, they mismanaged the economy, lost wars, and directly killed thousands of protesters. One of the Russians most hardened in his opposition to the tsars was *Vladimir Lenin*. Lenin also happened to be a radical

Marxist who believed that the solution was a military revolution on behalf of workers and peasants.

The tsar abdicated under pressure in 1917. Lenin's *Bolshevik* party disrupted the power transfer process, winning over a large military contingent that enabled them to occupy the capital by the end of the year. The events that followed closely paralleled the French Revolution. Widespread opposition to the Bolsheviks led to counter-revolution and civil war. The Bolsheviks assassinated Tsar Nicholas and his family, and their campaign of *Red Terror* killed thousands of political opponents. Renamed the **Communist Party**, their monopoly in government was stabilized by the end of Lenin's life in 1924. One of Lenin's final acts was to annex three states from the former Russian Empire into a new **Soviet Union**, aka the USSR.

Marxism-Leninism was an international doctrine; "Workers of all lands unite" is inscribed on Marx's tomb. Lenin believed that his "dictatorship of the proletariat" (working class) would transcend national boundaries, leading revolutions around the world. In fact, Marx and Engels had written that socialism must become global to survive, because it was a class conflict and capitalism had created a global upper class.

Lenin's successor, **Josef Stalin**, was more isolationistic and aggressively industrial. Stalin greatly strengthened his country and his party as a pretense for his own personal ambitions; having nearly absolute control of the Soviet economy made him one of the wealthiest men in the world.³² He has served as the model for subsequent socialist dictators, from Mao in China to Maduro in Venezuela.

It is now clear that Marx and Lenin did not have historical perspective to see the correct endgame. The international workers' movement never gained traction. No socialist nations ever reached the mythical communist stage. The USSR and Red China called themselves "communist" euphemistically, but their strong central governments made them permanently socialist.

However, as industrial capitalism has addressed its imperfections through reform, those reforms have borrowed from socialist themes. The countries of northern Europe openly practice social democracy. Even conservative Americans, who use *socialism* as a "scare word",³³ have accepted socialist programs such as welfare, social security, and workplace regulations.

C. Computers

As industrial societies invented machines to augment their muscle power, they also created computers to automate mental activity. It is natural to wonder what the “first computer” was, but that is just as impossible to define as the “last computer”. A computer is a synthesis of many complex systems: electronics, information, calculating, communicating, memory, programming, etc. These systems have separate histories, some dating back centuries. There were mechanical adding machines in the 1600s and “programmable” industrial looms in the 1800s. Telegraphy and text messaging have existed since the 1800s. Mathematicians developed information theory in the 1930s – ‘40s, based on 19th century logic. The gradual convergence of these elements has led to an ever-shifting front of technology. Most people today remember computers without music and cars without microchips. This recent history illustrates how various strands of technology are still being incorporated into the definition of computing.

We would all agree, though, that computers radically changed the world sometime in the 20th century. This history will pick up with that breakthrough. In fact, even that transition occurred gradually over decades.

A few individual computers impacted the world from secret labs during WWII. Some of them made codes for secure communications, and others broke codes. Computers were also enlisted to aim artillery shells, provide air defense, and solve problems about nuclear bombs.

By the late 1940s, computers were fully electronic and digital. The digital nature of computing means that all information, from numbers to videos, is represented in the same form. The unit of information is a *bit*, a binary digit that people represent as “0” or “1”. In a computer, bits are stored as two different electromagnetic states. The computers of the late 1940s could even store their own programs as digital information.³⁴ Programs are special sets of instructions that allow one computer to perform diverse functions. Storing programs in digital memory enabled computers to control their own processes at lightning speed, which in turn allowed people to program computers with unprecedented flexibility. This was when computer scientists became especially excited that they were onto something with enormous potential.

Businessmen got excited too. The drive to commercialize computers began around 1950. As computers gradually became smaller, less expensive, and more user-friendly, clientele diffused from the military down to smaller government offices, universities, corporations, and banks. IBM emerged as the industry giant in the mid-1950s and held on to that position for three

decades. By the 1960s, “mini” computers were accessible even to relatively small businesses. The number of computers worldwide rose from tens in 1950 to tens of thousands by 1965.³⁵

Computers allowed businesses to offer better goods and more efficient services. For example, computerized airports could handle much more traffic, and computer-aided design sped the production of cars. Computers enhanced new pop culture media such as TV and recording studios. They played a large role in national security, and they even flew rockets to the moon. Until the 1970s, though, all of this took place behind the scenes. Ordinary consumers did not directly see the computers that wrought the changes.

The mid-century breakthroughs were enabled by the *transistor*, a new electronic component used to convey bits.³⁶ Transistors have been engineered exponentially smaller since 1960, a trend called *Moore’s Law*. By the early 1970s, Intel was able to pack the processing power of an entire computer onto a single silicon chip, the *microprocessor*. This prompted a new and unexpected movement. Small companies, rogue professors, and even students and home hobbyists began tinkering with the microprocessor to create personal computers (*PCs*). The entire philosophy of PCs diverged from that of business computers. The prevailing vision of the 1960s was that computers would always be huge, expensive, and shared by multiple users for serious business purposes. PCs were meant for individual use, entertainment, and creativity (the first big hits were video games). Apple, an early industry leader with its *Apple I* of 1976, has gone on to become one of the largest corporations in the world. The IBM PC of 1981, with software provided by Microsoft, opened the PC market to the mainstream.³⁷ It was the first PC with an operating system (a program to coordinate all its components) and something that seems obvious now, its own monitor!

Another major enabler was standardization. The computers of the 1950s were custom-made, which made a unified computing industry impossible. As the field grew, industry leaders set standards in programming languages, electronic components, and specifications. This was vital for computers to network and communicate with each other. The internet got off to a slow start in the ‘60s, with email soon to follow in the ‘70s.

PCs proliferated rapidly in the 1980s. The effect was similar to the Enlightenment, empowering ordinary people to do specialty tasks like printing, graphic design, accounting, and journalism. Bookshelves and file cabinets shrank as more information was stored on PCs and disks. The technology was liberating, though the potential was limited by the internet, which

remained exclusive to a few large institutions. Home computers were still a novelty item in a small number of households. Few people realized that they were just years away from another technological revolution.

IV. The World War(s)

A. How?! Why?!

One of history's most difficult questions is how all of the major civilizations could let themselves get embroiled in such an apocalypse as the world war(s). WWII alone was the single deadliest war in history. It was essentially a continuation of WWI, which is now widely seen as avoidable or even arranged. Altogether, well over 100 million lives were lost as a result of combat or war-related murder, starvation, or disease in the three decades between 1914 and 1945. This is unparalleled megadeath. How could the human race do this to itself? The short answer is that nobody knew what they were in for. This was a historic breaking point, a confluence of conditions that had not been seen before and is unlikely to be repeated again.

As discussed in section II, Europe's 19th century revolutions failed to yield many democratic reforms. Most policy decisions were made by small, closed circles of royal families and their appointees. An emperor's wealth, career, self-image, and legacy – his entire person – was defined by his empire's status in relation to others. Most emperors saw little in common between themselves and their own subjects; an emperor's peer group was the small circle of world leaders. When such power is concentrated in so few hands, international politics becomes an unfortunate extension of personal ambition.

The prevailing worldview at the time was “might makes right” or, in a more 19th century idiom, “survival of the fittest”. Whenever an empire showed signs of weakness on its fringe, its neighbors would converge like vultures. The industrial age required resources – land, water, crops, oil, minerals, and laborers. The small countries of Europe and Japan did not have much land of their own, so they competed fiercely with each other for territory and resources in Africa and Asia. Rather than trading freely, empires erected trade barriers to protect their own interests.

³⁸ Colonization became a life-or-death competition for finite resources. European empires became particularly confrontational after 1910, when they had fully occupied Africa and could not expand further without impinging on one another.

The nationalistic swell of the 19th century had a violently racist foundation. To an emperor who was willing to risk his own subjects' lives to acquire a port or an oil field, the lives of his enemy combatants and the welfare of the native population were not even part of his risk-benefit calculation. Emperors took advantage of nationalistic arrogance and fear, which fueled military morale.³⁹ Following Napoleon, most countries no longer used small professional armies, but drafted millions nationwide. Nevertheless, most soldiers and their families felt a sense of patriotic duty to quell foreign threats. Strikingly, each country believed that it was arming defensively for its own security.⁴⁰ When the other side felt the same fears, an arms race was a self-fulfilling prophecy.

The formations of Germany and Serbia were especially troublesome for their neighbors. Germany's unification was completed in 1871 as it seized the Alsace and Lorraine regions from France. German leaders also had their eyes on lands in Poland and other eastern countries that had high concentrations of German speaking people. The last German emperor, *Kaiser Wilhelm II*, was tempestuous and insecure, and he governed accordingly. He had an inferiority complex against his own cousins, the rulers of England and Russia. Wilhelm became obsessed with developing a navy that could defeat England's, so that Germany could properly colonize Africa and Asia despite its late start.⁴¹

Serbia had been part of the Austro-Hungarian Empire. Serbian nationalism ran strong, and Serbia was interested in further claiming the province of Bosnia-Herzegovina from Austro-Hungary. The Serbs were supported by the Russians, who perceived a racial kinship and would have liked more control in the Balkans as well.

In a world dominated by aggressive empires with no higher authority, relations between those empires were touchy, and it was imperative that they could reach understandings through treaties. By 1914, Europe was diplomatically partitioned into two competing blocs. In Central Europe, Germany was unified with Austro-Hungary. Wilhelm's aggression had achieved the impossible, uniting Britain with its greatest imperial rivals France and Russia, the *triple entente*.

Frankly, it was easy to see war coming. The whole political system was almost designed to be unstable, so that empires could continue taking advantage of opportunities as they arose. The Crimean, Spanish-American, and Russo-Turkish Wars were all fought among imperial

powers. * The Russo-Japanese War of 1904 – '05 was a portent of things to come, the first major war that killed more soldiers by combat than by disease.⁴² Artillery became especially powerful and deadly. † In the 1910s, however, each bloc believed that it was the invincible one and that wars would continue to be short and easily won with high reward.

The treaties among the central powers and the triple entente ensured that the next war among European powers would spread worldwide; the British Empire alone spanned five continents. Industrialized military technology and the massive size of national armies guaranteed that the next war would bring total destruction. Emperors did not know their own strength.

B. The Wars

1. World War I

In 1914, Serbian nationalists assassinated the heir apparent to the Austro-Hungarian throne. The crisis between those two states probably could have been resolved diplomatically like so many similar events. However, Austro-Hungary and its ally Germany saw this as an opportunity for war. Austria hoped to crush Serbian ambitions, and Germany was looking for a chance to expand in Europe at the expense of the colonial superpowers.⁴³ Austro-Hungary declared war on Serbia on July 28 and opened fire that evening. Within a week, the entire triple entente was in a formal state of war against Germany, Austro-Hungary, and the Ottoman Empire. Germany was the next nation to launch an attack, mobilizing across neutral Belgium into France.

All sides expected a quick and easy war. They did not count on stalemate, but that's exactly what happened. Artillery and machine guns were insurmountable defenses. All economic productivity went toward the war effort, so violence escalated in the form of tanks, war planes, flame throwers, and chemical weapons. Meanwhile, civilians died of starvation and disease. The war dragged on for years and cost tens of millions of lives.[‡]

* This was when the US briefly experimented with colonialism in the Caribbean and the Pacific

† Hence the term “shell shock” for post-traumatic stress disorder in WWI

‡ A common characteristic of war is susceptibility to disease due to malnutrition and bad public health. The flu that swept the world at war's end killed 50,000,000, far more than the entire war itself.

By 1918, Germany was a failed state in revolution, while the US joined the western front full of energy and resources. Kaiser Wilhelm abdicated his throne that November 9, and the succeeding civilian government agreed to armistice on November 11.

2. Turbulence continues

Despite the cease-fire, WWI was never peacefully resolved. The newly fallen empires were partitioned into new countries designated roughly by ethnicity. The new borders left many ethnic minorities in the “wrong” countries, which caused ongoing unrest.⁴⁴ Jews were an unwelcome minority in several European and Mediterranean nations.

New nations were faced with three competing economic models, all relatively experimental at the time. Moderate capitalist democracy was squeezed between the international socialist revolution on the left and dictatorial fascism on the right. The USSR thrived during the West’s Great Depression, leading many to believe reasonably that capitalism had failed and Marxism-Leninism was the way of the future. The battle between the left and right extremes spread through Europe, Asia, and South America.

Germany was center stage for all that unrest and more. Ethnic Germans were scattered across Austria, Czechoslovakia, and Poland. The *Treaty of Versailles* stipulated that Germany would disarm, surrender lands, and pay for Europe’s recovery. Reparations were unrealistic because Germany was broke. The treaty especially rankled radical rightists who believed Germany was not done fighting, including rising Nazi Party leader Hitler.

Germany’s precarious new republic was undone by the Great Depression. Hitler rode swiftly to power on a wave of anti-socialist fear. Nazi Germany went into isolation and, against the Treaty of Versailles, aggressively rearmed itself. Hitler promised to rebuild the German Empire to include all ethnic Germans and only ethnic Germans.

In Japan, radical right-wing nationalism flourished in response to fears of liberal reformers domestically and western hegemony abroad.⁴⁵ Military leaders seized control in the 1930s. They strove to make Japan the self-reliant empire of the East. The Asian war was foreshadowed by Japanese incursions into China as early as 1931.

3. World War II

WWII was empiricism's last stand. Empire-hungry Germany and Japan were loosely allied with Italy, where Mussolini wanted to rebuild a Roman Empire. The war began with these *Axis powers'* * acts of aggression. Japan's 1937 occupation of China was especially large-scale and brutal. When Germany invaded Poland in 1939, Britain and France stepped in; the war started escalating to a global level. Germany quickly subdued France but got squeezed in another two-front war between Britain and the USSR.

One of Japan's motivations was its deep dependence on US imports, especially oil. The US remained neutral until 1941 but cut off trade with Japan when diplomacy broke down. Feeling cornered, Japan attempted to destroy the US naval fleet so it could conquer oil-rich lands in the Pacific. This led to American involvement in the war, and an avalanche of declarations of war worldwide.

It was a "world" war not only by country count but by its impact on civilian lives everywhere. Entire nations mobilized; civilians worked, rationed goods, and loaned money for war efforts. Racist disregard for foreign life also led to widespread, deliberate murder, rape, and displacement of civilians. The Nazi holocaust is the most notorious example. Other atrocities included massive civilian bombings on both sides.

The urgent race for military superiority led to unprecedented advances in technology. Spinoffs of the war included such groundbreaking fields as electronics, jets and space travel, and nuclear energy. The US dropped nuclear bombs on cities to force Japan to surrender in 1945. Germany was crushed in the same year and was occupied by Soviet forces in the east and American, British, and French troops in the west.

C. How the Wars Changed the World

The course of history since 1945 follows a different arc from events preceding 1914. The world wars led to most of today's national boundaries. On an even larger scale, today's global institutions and the very philosophy of human coexistence look back to the trauma of those three decades.

* After Mussolini's quote that "all of Europe will revolve on the Rome-Berlin axis."

1. The end of empires

The wars led directly to the reduction of the German, Austro-Hungarian, Ottoman, Italian, and Japanese Empires to their homelands. Many outlying regions of these empires were nationalized. Others were placed under the protection of Allied powers.

After WWII, even the surviving empires steadily unraveled. Decolonization began in Asia. As Japan had taken hold of European / American territories, it had severed former colonial ties. Most residents of such regions (the Philippines, Indonesia, etc.) were Asian natives, not white immigrants. After liberation from Japan, it was natural for them to seek their own independence.⁴⁶ Other colonies were then inspired to autonomy, especially in light of international declarations urging national sovereignty.⁴⁷ For Britain and France, holding onto overseas colonies became increasingly expensive and complicated. Africa saw especially rapid decolonization and the establishment of new sovereign nations.

Unfortunately, the nationalization process was more speedy than steady. Revolutions were common,⁴⁸ and democracy is still a minority condition.⁴⁹ Royal families never made a serious comeback, but many were replaced by dictatorial militaries or political parties. Many of today's African and Asian hot spots, like Israel, Sudan, and Myanmar, are former colonies that never have found their footing in the post-imperial world.

2. New models of war and peace

The world wars have not been the wars to end all wars. However, there are some clear new patterns to war and peace. Recognizing these patterns is an important first step toward improvement.

The most encouraging trend is a nearly complete peace among republics; I call it the ***Pax Republica***.^{*} It's easy to understand this by considering the costs and benefits to the decision makers. When voters get to decide whether to disrupt their own everyday lives with war, it's really no surprise that they have a higher threshold than despots. Republics trust each other to regard war as a last resort.

* The only major post-world-war conflicts arguably between republics have been India / Pakistan, Lebanon / Israel, and Serbia / Bosnia / Croatia. However, not even these are clear cases of democratic belligerence. Pakistan and Lebanon both qualify as "hybrid regimes", not properly democratic. The Balkan wars were part of the ongoing process of nationalism following the dissolution of the Austro-Hungarian Empire and a Yugoslav autocracy.

Today, where there is war, there is a dictator. There are only a few dozen dictatorships,⁵⁰ but collectively they rule half the world and demand constant attention of the other half. They wage non-violent “cold wars” against the free world – trade wars, espionage, hacking, saber-rattling, and selling arms to rogue militias.

The superpowers are armed with arsenals of hydrogen bombs so powerful that they can't be used. This *mutual assured destruction* is a macabre equilibrium, but it has caused everyone to rethink the value of imperial-style total war. The result has been a turn to the opposite extreme, micro-warfare. With no chance of winning battles against national militaries, guerrillas leverage their advantages of speed and invisibility. They make highly targeted strikes to terrorize civilians or harass occupying forces. The lines between war / crime and military / police are blurring.

3. Globalism

In response to the world wars, there has been a major shift in emphasis from national competition to international cooperation with a federal structure. The European Union started with the simple idea of combining Germany and France's steel and coal industries. By the 1970s, western national economies were irrevocably interdependent. These countries can't fight each other anymore without hurting themselves. Greater ease of travel and communications also made foreign nations less mysterious and frightening, an important factor in *Pax Republica*.

The United Nations was founded in 1945 to provide a framework of international conflict resolution. Though far from perfect, it serves a role that was sorely lacking before the world wars. The might-makes-right paradigm has been tempered with a charter of law and a forum for multilateral discussion. The UN has been a major player in brokering peace and providing humanitarian aid. It was not intended as a central world government, though it has come to perform many governmental roles. One of the UN's greatest unsung legacies is its elimination of the right of conquest.⁵¹ A nation may no longer claim foreign lands by aggression, a rule that has seldom been violated.

Just as important as international law is the spirit of globalism – the concern for the well-being of the whole world beyond any particular country. It is difficult for people to think globally, but we are gradually recognizing the value of acting as a united species.⁵²

V. Modern Culture

What is “modern” about today’s life, and how did it get that way? There is more to it than smart phones and social networks. The inventions of the Industrial Revolution, from factories to television, made the world radically different than ever before. Most people now live in multicultural cities and have jobs that did not exist 300 years ago. We define ourselves less by church-centered communities and more by national identity, pop culture, and a growing global sense of humanity. Even the nuclear family has changed, becoming smaller but more fragmented. All these signs of modernity were evident by the mid-20th century.

A. Universal Human Rights

The Enlightenment was predicated on the axioms that life, liberty, and property are natural and inalienable rights, that all persons are created equal, and that government derives its authority from the consent of the governed. In 1700, this was nothing but idealistic theory. It took centuries of hard work to change the world and make human rights a reality. The general pattern was abolition followed by suffrage and then civil rights.

18th century Euro-Americans faced a moral quandary. They had inherited an economic system grounded on physical slave labor, contradicting their own new ideas about liberty. Abolitionism as a persistent movement originated with American Quakers in the 1770s. Abolitionists believed not only that slavery was immoral, but that it would eventually bring God’s punishment.⁵³ From that time onward, abolitionist sentiment and anti-slavery laws swept the globe.

Classically, suffrage or the right to vote was limited to a narrow class of men who met minimum wealth qualifications. Some nations had ethnically proportional parliaments while others disenfranchised minorities altogether. The US, New Zealand, and Finland were early suffrage leaders. The 15th Amendment of 1870 opened the vote to American men of all races. The worldwide women’s suffrage movement began shortly afterward, and suffrage for all economic classes was a major theme in the 20th century. Rights to hold office grew in parallel with voting rights. Suffrage was fundamental to all other civil rights, because new voters now had a say in shaping their own societies.

The UN’s seminal *Declaration of Human Rights* (1948) was the first affirmation of individual rights to life, liberty, and property for every single human being. The UN does not

enforce these rights *per se* but collaborates with each state to monitor its own human rights record.⁵⁴ Each government is essentially its own watchdog, which has led to clear regional differences in human rights environments. Communist and Muslim governments have traditionally been less protective of civil and political rights. The US, especially the Republican party, has been slow to recognize certain economic rights such as the right to health care or freedom from poverty.⁵⁵

There are some notable conflicts between individual rights and national self-determination, with the latter tending to prevail. Since no nation is obliged to protect the rights of foreigners, citizens who are persecuted by their own government have little recourse. The UN recognizes an individual's right to leave any country and seek asylum elsewhere,⁵⁶ but individual countries set their own immigration policies.

The 1960s were a rich time for civil rights. The black American movement was a prominent theme of the decade. It was not just about suffrage, but dignity and equality – the rights of blacks to partake in society alongside whites. The Civil Rights Acts of 1957 – 1965 made the US much more racially integrated. This mostly non-violent groundswell was inspired by India's campaign for independence, and in turn it was the model for subsequent civil rights movements by Hispanics and other minorities throughout the world. At the same time, *women's lib* was a second wave of feminism. Women's lib was also concerned with dignity and economic equality, especially opportunities in schools and the workplace.

By the 1980s, the developed countries were much more integrated than just decades earlier, with diverse multicultural cities and women in high positions. From our 21st century vantage, universal human rights seem only logical. But no civil rights movement was easily won. For every demographic with something to gain, there was another demographic afraid of loss. Only afterward do we appreciate the value of diversity and equal opportunity.

B. Birth Control

Reliable birth control is one of the quietest but most impactful revolutions of the last few centuries. It is also one of the most fascinating themes, a thread that runs through family dynamics, public health, women's rights, geopolitics, and even human evolution.

Strictly speaking, birth control has a long history going back to ancient times. Early contraceptive methods were not particularly easy or effective, leaving abortion as a common

form of birth control. Contraception was not at the forefront of people's minds anyway. Large families were helpful for farm work, and high birth rates helped counteract high child mortality rates.

Of course, social evolution could only lead to pro-fertility values. Governments historically encouraged large populations for tax or national defense. The Catholic Church proclaimed birth control as evil, a decree justified only with the circular argument that sex must be procreative.⁵⁷ In some US states, even married couples could not legally buy birth control between the 1870s and 1970s.

By 1800, though, overpopulation was becoming a concern. Economists, most famously Thomas Malthus, warned that if birth rates didn't slow down, higher death rates would be forced on Europe through starvation, disease, and war.⁵⁸ Unanticipated industrial advances delayed Malthus's most pessimistic predictions. This made some skeptics dismiss him out of hand. Though Malthus may have misidentified the critical century or continent, his point is irrefutable: exponential growth cannot continue forever. At some point, population has to level off.

Feminists took up the issue for a completely different reason. Many wives felt powerless over their reproductive timelines and felt that their role in life was limited by the demands of motherhood. The common counterargument was that women should stay single or celibate until ready to have children.⁵⁹ But with few career options before the world wars, women still depended on marriage for economic security. With sexually assertive husbands (and some women even privately admitting to sex drives of their own⁶⁰) they became pregnant regularly. This in turn made it harder for housewives to earn income. Controlling this cycle is now recognized as a straightforward human rights issue: a couple should be entitled to have sex whenever they want and to have children when they are ready.⁶¹

Mass-produced contraceptives were available by the 1840s. They were effective, they sold well, and they resulted in drastically smaller families.⁶² "The pill" of 1960 made birth control even simpler and less intrusive. A woman's choices of when and how many children to have were now in her own hands. Meanwhile, activists lobbied for education, legalization, and universal access to birth control. By 1972, even unmarried American women could legally use it.⁶³

Couples' access to birth control is heavily dependent on governmental policy.⁶⁴ Population concerns were taken more seriously after WWII, when newly developing nations

took control of their own economies with the help of international aid. Rapid population growth could seriously offset the gains of investment.⁶⁵ National governments enacted policies to reduce birth rates. They provided birth control devices, clinics, and education. The World Bank accelerated the process with loans for population programs.⁶⁶ The private sector has also helped, especially in more developed nations. The impact has been profound; the world's fertility rate has already been cut in half since 1960!⁶⁷ Nevertheless, the human population is still stressfully high and growing.⁶⁸

One of the conditions of evolutionary equilibrium is random mating.⁶⁹ Since some regions or cultures have higher birth rates than others, the human species is not in equilibrium; it is evolving toward the more fecund populations. Since the Industrial Revolution, global population has become proportionally less Western / Christian and more African, Asian, and Muslim.⁷⁰

C. Consumerism and Multi-National Corporations

The Industrial Revolution was spurred by consumer demand. Ordinary Britons loved the textiles coming to them from the Far East. Industrial textile factories at home in England allowed them to buy similar fabrics for lower prices. This created an enormous profit incentive for factory owners – the economic spark that set off the revolution.

The major trade corporations of the colonial era, the East Indies Companies and so forth, were by and large state-sponsored monopolies. As industry advanced domestically, a growing number of diverse corporations were needed for railroads, mining, manufacture, and more. This was too large a task for government, so private businesses met the demand. In order to attract employment and tax revenue, cities and states competed against each other for privately-owned corporations. This kind of competition is sometimes called a “race to the bottom” because industry is most attracted to the least regulated jurisdictions. In the 19th century, it became increasingly easy to register a corporation.

A critical change was legislation offering *limited liability*.⁷¹ This capped a shareholder's risk at the amount of his investment; he was not liable for the corporation's debts beyond the amount he had put in. The practical effect was a flood of capital as corporations became more

appealing to investors. The US led the way in limited liability, * and its corporations grew largest and most quickly. National chain stores displaced many local shops.

Corporations are like children of the state. A corporation owes its existence to legislation, yet it takes on a life of its own that becomes increasingly difficult for the state to control. Industries become major lobbyists and therefore wield great political influence. Governments wrestle with encouraging the growth of industries while preventing monopolies. Economically, some corporations have grown to the size of small countries! ⁷² To further complicate matters, multi-national corporations (*MNCs*) extend beyond the jurisdiction of any one government. *MNCs* can be so large as to create global problems such as pollution, climate change, and financial crises. In these arenas, it is becoming more imperative to find global regulatory solutions.

MNCs can greatly enrich their owners and managers, but they make money only if consumers buy their products. The theory that household demands drive the market is *consumer sovereignty*. ⁷³ Consumers say, “I’m hungry; feed me! I’m bored; entertain me!” Corporations come running to offer restaurants and electronic devices. Meanwhile, corporations have become experts at making their products appealing. Advertisements are everywhere, and people define themselves largely by their brand preferences. In these ways, modern capitalist culture is now defined by consumers, large corporations, and governments, in a three-way cycle of checks and balances.

Private corporations have played a critical role in the *Pax Republica*. They have provided stable jobs and household needs, helping a large middle class stay comfortable and healthy. Corporations have helped strengthen the sense of transnational and global identity. The popular culture of movies, music, food, and fashion is imported across borders everywhere. Airlines take travelers and businesspeople to distant lands. It has been observed half-jokingly that there have been virtually no wars between countries that both had McDonalds. ⁷⁴ *MNCs* are a new outlet for men of unlimited ambition. If a Caesar or Khan had lived in the 20th century, he would have had the option to make his fortune running a corporation rather than conquering nations. It is vital that in today’s democracies, politicians are paid fixed salaries, and their

* The first modern limited liability statute came from New York in 1811.

wealth is legally separated from the state treasury. With much greater opportunities in the business world, there are not many legitimate incentives for a man to seek his fortune in politics.

D. The Industrial Family

Three hundred years ago, 95% of our ancestors were peasants or perhaps local guild workers.⁷⁵ They lived in small villages revolving around a church, minor king, or landlord. The family was the socio-economic unit of its community. Family members spent most of their time working together at home to produce their own food, clothes, and shelter. The community was a network of families that exchanged goods and services as well as brides and grooms.

Early in the industrial era, families moved to cities and fathers found work outside of the home at factories or offices. Public education took children away from home and work into schools. In the 20th century, a much larger share of mothers left home to work too. The industrial family is no longer an economic or sociological “unit” with one purpose or goal. It should be no surprise that husbands, wives, parents and children now have diverging individual interests. For example, parenthood and livelihood now often require great sacrifices of one another. A husband’s career may be out of step with his wife’s. Early tension between individualism and marriage was evidenced in 19th century “bachelor culture”.⁷⁶

Meanwhile, the countervailing social pressures keeping families together for the sake of the community were weakened. Multiple communities mingled together in cities. Since it was impossible for all legal, economic, and moral traditions to predominate, they became absorbed into the secular authority of the state. Church was one such cultural tradition that became a decreasingly central part of urban family life, with an especially profound decline in the 1960s.⁷⁷ Young adults now selected their own mates at school, work, or shifting circles of friends. With this disintegration of socioeconomic bonds, both within and between families, the environment in which families evolved started to disappear.

These social forces erupted in a “divorce revolution”⁷⁸ in the 1960s. The timing was due largely to two post-war factors. First, with unprecedented prosperity, middle-class husbands and wives no longer “needed” each other economically. Second, the birth control pill created a perceived separation between sex, pregnancy, and marriage.⁷⁹ Divorce has been legally enabled by “no-fault” divorce laws.⁸⁰

The most common modern alternatives to traditional marriage are pre-marital cohabitation, single-person households, and single parenthood, all increasingly prevalent since the 1960s. Modern “alternative” lifestyles are highly controversial, mostly due to the psychological impact of divorce or single parenthood on children. Children of alternative families are at greater socioeconomic risk than children of traditional families, though most children in non-traditional families grow up without serious problems.⁸¹ Almost 40% of pregnancies are still unplanned.⁸²

Another long-term effect of generational segregation was the development of youth culture. Singlehood became an important phase of life, and a distinctly modern lifestyle, when young adults earned their own money and spent years between childhood and marriage. The identification of youth as a distinct demographic became exaggerated in the corporate era. The teenage market was targeted and almost defined by particular products and services – cars, cigarettes, clothes, music, restaurants, and more.

The dark side of youth culture is street gangs. Alienated adolescents have banded together for centuries, especially after cities swelled with poor job seekers in the 1800s.⁸³ Gangs have been identified with drug use and trafficking increasingly since the 1960s.⁸⁴ Many of today’s most popular illicit drugs date to the 18th – 20th centuries, including opiates, cocaine, and amphetamines.⁸⁵ Though these drugs are not as deadly as alcohol or tobacco, they have been a major scourge on the modern world, especially in conjunction with poverty.

On the plus side, industrialization has lifted millions of families out of poverty into a broad middle class. Everyday life became healthy, peaceful, and comfortable for most families only after 1800.

VI. Dinner with Descartes



Today's history books are supersaturated with detailed accounts of the last few centuries. This chapter attempts to discern the broadest trends. If Descartes visited for dinner and asked, "What have I missed?" how would we distill it for him? We might start with these nutshells:

- (1) Almost everything that we consider "modern" has its roots in the Enlightenment, the Industrial Revolution, or the world wars.
- (2) The change has been so abrupt that this world is still swirling like a pot that has just been vigorously stirred.

The vision in Descartes' time was that a handful of empires would eventually engulf the world, each feeding itself on its own natural resources. This program was complicated by the surprising success of the American model: a sovereign republic. Revolutionary inspiration began to stress empires and monarchies from within. Meanwhile, as the empires consumed the last frontiers of available land, they could no longer expand without clashing against each other. Their conflicts climaxed in the world wars, when they dealt each other blows that would all prove fatal by the end of the 20th century. The wars were surprisingly devastating, the first large-scale wars fought with industrial military technology.

As empires collapsed, they left unstable power vacuums. The questions that arose were not only who should rule, but how. There were three major competing models for national sovereignty: moderate liberal democracy, anti-capitalist socialism on the left, and belligerent nationalism on the right. The two extremes were more easily exploited by dictators. Today's

Pax Republica is an age of peace among free nations. The conflicts that persist virtually always involve a dictator.

20th century multi-national structures like the UN and EU were the first serious attempts to encourage communication and cooperation over cutthroat competition. Unfortunately, the UN immediately got pulled in different directions by autocracy and lingering nationalist rivalries. Thus, although we now live in a globally integrated society, law has not caught up to reality; there still is no effective model for world government or unification. In fact, we are still making an awkward sociological transition from thinking of ourselves as nations to conceiving of ourselves as one planet.

In Descartes' time, each nation had its own organized religion, which had evolved to provide law, morality, and a shared reality for its people. In this chapter, these church functions were increasingly displaced by state, science, and universal values. This fracturing of shared reality has created yet another identity crisis for emerging nation-states.

Meanwhile, the Industrial Revolution has completely remade our economy. Private multi-national corporations now serve the economic functions that empires once did. Productivity has created large upper and middle classes that have great bargaining power over governments and corporations.

Industrialists and their factories attracted workers to cities. The modern city is a microcosm of the best and worst of the human experience. Cities grew larger and denser, bringing the attendant problems of pollution and ghetto life. At the same time, they brought together diverse communities from the countryside and from around the world. Cultures informed one another. Religions and ethnicities blurred together into melting pots. This created yet another modern cultural divide between rural and urban realms.

Many changes of modern life had the effect of pulling family members in different directions. Fathers and then mothers found career goals and duties to employers. Children had school and a growing youth culture dominated by peers. Eventually, concepts of liberty became so individualistic that even the nuclear family was seen as a constraint. New models for mating, parenthood, and singlehood are still in the making.

Modern democracy created the left-right political spectrum, which shifts with the times. Conservatives and liberals have many legitimate differences of opinion. Complicating this rivalry, though, each side mischaracterizes the other (and maybe even itself) with centuries-old

stereotypes. Interestingly, both sides draw heavily upon anti-imperialism. Conservatives still remember nationalism as liberation from empires. Nationalism now stands as the opposite of globalization, which many conservatives fear as reversion to an evil empire.⁸⁶ On the left, pejorative terms for free trade and capitalism include “neo-colonialism” and “cultural imperialism”. These are outdated and overly simplistic judgments of guilt by association. Stable progress in this fast-changing world will require modern conservative and liberal ideas. Before we can hope to reconcile such principles, we have to understand them for what they really are today.

VII. Citations

¹ Hourglass image <https://www.uokpl.rs/rsmax/hTxxJhR/>, Statue of Liberty image by ArtsyBeeKids, <https://pixabay.com/illustrations/statue-of-liberty-symbol-america-5726333/>. Scales image by Clker-Free-Vector-Images, <https://pixabay.com/vectors/scale-balance-libra-justice-gold-306515/>. Sword image by Clker-Free-Vector-Images, <https://pixabay.com/vectors/sword-blade-weapons-weapon-steel-26500/>. Blindfold image by Marek Polakovic, Creative Commons, <https://thenounproject.com/search/?q=blindfolds&i=2523827>. US flagpole image by SyedR, <https://pixabay.com/illustrations/flag-of-usa-world-flags-country-1622049/>.

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