CHAPTER 10²: THE LAST FEW CENTURIES (THE 18th CENTURY – THE 1980s)

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I. Introduction

The last few centuries are widely studied in every history curriculum. In fact, it would be fair to argue that this is the most overly represented time scale in the collective consciousness. That is a blessing and a curse for an overview like this book. The $18^{th} - 20^{th}$ centuries were so fast-paced, and so well memorialized, that it would be impossible to stuff a thorough chronology into one chapter. On the other hand, you are already so familiar with George Washington and Adolf Hitler that I won't need to waste time introducing them. This chapter takes a step back from most history books to analyze the broadest of trends. Rather than rehashing the world wars battle by battle, I will tackle the more abstract theses of why this chapter had to climax in such a catastrophe, and what the world learned from it.

The chapter is organized around the three predominant threads of "modern" history: the Enlightenment, the Industrial Revolution, and the world wars. Enlightened philosophy rejected the divine right of kings and replaced it with popular sovereignty. The emphasis was on class or national rights in the $18^{th} - 19^{th}$ centuries and individual rights after WWII.

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.

The final section examines those changes 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.

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." ¹ 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 question authority. Wealth and power were concentrated in a very small class of monarchs, nobles, and priests. The power struggles among them held undue sway on the fortunes of ordinary men. 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 property ² 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.

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. ³ 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

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

the first *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.

This was the tide that brought *Napoleon* to power in 1799. A career soldier who had risen through the ranks of the army, he led a coup against the fractured government and declared

himself the new emperor. He proscripted a national army into the most powerful military force the world had ever seen, save perhaps for the British navy. 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. He had a powerful effect on the peoples nearby. Inspired by the French spirit, they too caught the fever of nationalism. By necessity, it had to be a militaristic nationalism so they could defend themselves. By 1815, an allied coalition was finally able to capture Napoleon. France, like the rest of Europe, fell under monarchical 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.

For European conservatives, the French Revolution demonstrated that liberal ideals led to chaos and violence. The theory was that only an absolute dictator could organize the military well enough to defend the realm. 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. ⁴ 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 law ⁵ and public education ⁶ 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 military leaders. 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." ⁷

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 nation assumed a more uniform identity. This led directly to a more peaceful, prosperous, and powerful union.

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 Christian practice. 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

 $^{^*}$ 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)

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. Through medieval times, it was perfectly acceptable to "explain" almost any event by saying that some god, spirit, or demon wanted it to happen. Now Newton had shown how planetary motion was determined automatically by 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 or "inert" particles and forces of nature can account for incredibly complex phenomena, including life functions. Even the greatest mysteries of science follow 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 willpower. Carrying these thoughts through to their logical end, *atheism* is the belief 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 the human mind thinks religiously. The illusion of the supernatural is compelling. Each one of us is a conscious purposeful being, so our minds project that quality onto everything around us: "The whole universe must be conscious and purposeful, just like me!" Animism is the default, instinctive outlook, and it takes difficult training in science to see past it. Religious thought, despite its fallacies, is simple and comforting. It is easy for children to believe, and religion will persist as long as parents teach it to their children.

Whether it's right or wrong, atheism has always carried a strong stigma. ⁸ It started to become socially acceptable only in small intellectual circles by the 1770s. ⁹ The conservative concern was that, without fear of God's punishment, atheists would have no incentive to behave morally. ¹⁰ To the contrary, today's least religious countries are among the wealthiest and most peaceful. ¹¹ 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 thought shows that faith and superstition are unquenchable instincts.

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 worked with their hands 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.

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 itself ¹² – literally the greatest thing since sliced bread.

With growth came growing pains. Industrialization was a very 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. ¹³

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 economy ¹⁴, while Russia and Japan joined the industrial ranks. ¹⁵

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 mid-20th century, a majority of the American economy was devoted to services ¹⁶ 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. ¹⁷

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. ¹⁸

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 ¹⁹ 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 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" ²⁰ 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" ²¹ 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*.

^{*} 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.

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. What followed was very similar to 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.

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. One of Lenin's final acts was to annex three states from the former Russian Empire into a new *Soviet Union*, aka the USSR.

Lenin's successor, *Josef Stalin*, was more isolationistic and accelerated the pace of Soviet industrialization. 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. ²² 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", ²³ have accepted federal socialistic programs such as welfare, social security, and workplace standards.

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 1940's, 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. ²⁴ 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. ²⁵

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. ²⁶ 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 was an early industry leader with its *Apple I* of 1976, and

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. ²⁷ 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.

The 1980s witnessed the rapid proliferation of PCs. The effect was similar to the Enlightenment, empowering ordinary people to do specialty tasks like printing, graphic design, accounting, and journalism. Rooms full of books and file cabinets started to shrink, 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. Very 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 very 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.

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. ²⁹ 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. ³⁰ 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. ³¹

Serbia had been part of the Austro-Hungarian Empire. Serbian nationalism was very 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 empirical 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. ³² 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

^{*} 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

chance to expand in Europe at the expense of the colonial superpowers. ³³ 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.*

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. ³⁴ 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.

^{*} 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.

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. ³⁵ 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, but atrocities were committed by several belligerents, 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.

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

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.

IV.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.

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. ³⁶ Other colonies were then inspired to autonomy, especially in light of international declarations urging national sovereignty. ³⁷ For Britain and France, the costs and complications of holding on to overseas colonies continually increased. Africa especially saw rapid decolonization and the establishment of new self-determined nations.

Most new nation-states, as well as the former colonizers, eventually became democratic. Unfortunately, the process was more speedy than steady. Revolutions were common ³⁸ and dozens of governments are still authoritarian.

2. Pax republica and the cold war

The era since WWII has been, as a rule, a cease-fire between republics, a *Pax Republica*.

* War has become too costly to justify. There is now nearly universal consensus to place diplomacy before arms, especially between major nations and republics.

^{*} My own term

Of course, this doesn't mean that conflict vanished; it transformed to less extreme forms. The US and USSR became engaged in a tense and protracted *cold war*. The Americans sponsored reconstruction of Western Europe and Japan. Moscow patronized Eastern Europe and China. As decolonization then led to a whole *third world* of developing nations, the Americans and Soviets competed for influence over the emerging governments. It was a war of espionage and covert operations, often misguided and largely unknown to the public. This was a reversion to the isolationism, hyper-nationalism, and "secret diplomacy" that had led to WWI.

When the cold war did become violent, it was a new kind of combat. It involved local populations, coups, and insurgencies. The major powers themselves were armed with arsenals of hydrogen bombs so powerful that they could not be used. This *mutual assured destruction* was a macabre equilibrium, but it did spell the end of the era of large-scale military mobilizations.

3. Globalism

Measures were taken after both wars to promote free trade, a shift in philosophy from national competition to international cooperation. 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 extremely interdependent. 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 plays a role that was sorely lacking before the world wars. The might-makes-right model has been replaced 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. ³⁹ 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 its value is gradually becoming more recognized. ⁴⁰

4. The Israeli / Palestinian conflict

The most intractable and contentious border dispute to come out of the world wars was in the Eastern Mediterranean. In WWI, Britain liberated Palestine from the Ottoman Empire with the assistance of local Jewish and Arab nationalists. Arabs and Jews both believed that Britain would eventually grant them a homeland. ⁴¹ Jews (the minority) migrated to Palestine in large numbers between the wars, as the area remained a British protectorate.

The modern form of terrorism began in this setting. With no chance of winning battles against national militaries, terrorists put pressure on governments by assassinating leaders or murdering civilians. Arabs and Jews committed acts of terrorism against each other and against the British in Palestine.

After WWII, the UN proposed a two-state economic union. The Arabs considered this a breach of self-determination. They refused to compromise any territory, and never accepted the proposal. The borders were left undetermined by the time of British evacuation, to be unofficially settled only after a ten-month Arab-Israeli war. In the Six-Day War of 1967, Israel broke the armistice and recaptured the Arab territories, now called Occupied Palestine. The occupation has been the basis of lingering discontent for Arabs against Israel and its staunchest apologist, the United States. This land dispute still disproportionately entangles the world a century on.

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. ⁴² 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. ⁴³ Each government is essentially its own watchdog, which has led to clear regional differences in human rights environments. Communist and Moslem 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. ⁴⁴

There are some notable conflicts between individual rights and national selfdetermination, 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, ⁴⁵ 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 public health, women's rights, family dynamics, and even geopolitics and 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. ⁴⁶ 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. ⁴⁷ Malthus's pessimistic predictions did not come immediately true due to unforeseen industrial advances. 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. ⁴⁸ 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 admitted to sex drives of their own ⁴⁹) 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. ⁵⁰

Mass-produced contraceptives were available by the 1840s. They were effective, they sold well, and they resulted in drastically smaller families. ⁵¹ "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. ⁵²

Couples' access to birth control is heavily dependent on governmental policy. ⁵³ 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. ⁵⁴ 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. ⁵⁵ The private sector has also helped, especially in more developed nations. The result has been profound; the world's fertility rate has already been cut in half since 1960! ⁵⁶

One of the conditions of evolutionary equilibrium is random mating. ⁵⁷ 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 Moslem, a trend that is projected to continue. ⁵⁸

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*. ⁵⁹ 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 very life to legislation allowing its existence, 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! ⁶⁰ To further

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

complicate matters, multi-national corporations (*MNC*s) 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*. ⁶¹ 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 business people to distant lands. It has been observed half-jokingly that there have been virtually no wars between countries that both had McDonalds. ⁶² 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 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. ⁶³ 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". ⁶⁴

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. ⁶⁵ 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 very environment in which families evolved started to disappear.

These social forces erupted in a "divorce revolution" ⁶⁶ 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. ⁶⁷ Divorce has been legally enabled by "no-fault" divorce laws. ⁶⁸

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. ⁶⁹ Almost 40% of pregnancies are still unplanned. ⁷⁰

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. 71 Gangs have been identified with drug use and trafficking increasingly since the 1960s. 72 Many of today's most popular illicit drugs date to the $18^{th} - 20^{th}$ centuries, including opiates, cocaine, and amphetamines. 73 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. Summary And Conclusions

Almost everything that we consider "modern" has its roots in the Enlightenment or the Industrial Revolution. In combination, these movements brought an end to the age of empires. Each empire was internally strained by revolution and nationalism. Then the empires dealt the death blow to one another with industrial military technology in the world wars.

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 self-rule: moderate liberal democracy, socialism on the far left, fascism and belligerent nationalism on the far right. The two extremes agitated the most unrest, but they seemed to be the default in times of stress.

Today's *Pax Republica* is an age of relative peace between stable nations. Its first few decades were so tainted by memories of WWII and fear of WWIII that it was called a Cold War. Most nations recognized that global cooperative systems such as the UN and EU were necessary to foster cooperation over competition. The permanent members of the UN Security Council – the US, UK, France, USSR, and China – are the countries that "won" WWII and were supposed

to present a unified front to enforce peace after the war. Unfortunately, this body got immediately pulled in different directions by lingering nationalist rivalries among the superpowers. Still with a world-war mentality, the American and Soviet governments wasted decades fighting for influence over Third World nations.

Religion had long been part of national identity and law. In this chapter, religion was significantly displaced by state and science. The US was the first major secular nation, and the French Revolution was partly liberation from the Catholic Church's political influence. Socialist Russia and China actively purged religious institutions. As more secular governments took over the services of education, welfare, and health care, churches became a much less central part of daily life. Coupled with this, modern science has been so successful at explaining nature that it has left little room for mythology and superstition. This has led to a confused separation between religion and its derived morality, wherein again states have stepped in with secular bodies of law.

As changes tore holes in the fabric of medieval institutions, Marxism seems to have flourished as a way of patching the emotional holes. It could be described as the first major "secular religion". Marx described an arc of history from a simple state of nature, through conflict, to redemption, much like apocalyptic mythology. It gave hope to a lower class that had not yet heard of individualism. Socialism was widespread in Asia, Europe, and South America well into the 20th century. It is now seen as a tempering influence on capitalism's extreme inequalities.

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. Youth gangs flourished. At the same time, cities brought together diverse communities from the countryside and from around the world. Cultures informed one another. Religions and ethnicities blurred together into melting pots.

The Enlightenment originated in the upper classes. Abolitionism, the French and Russian Revolutions spotlighted the plight of the lower classes. In modern times, slavery was outlawed and human rights expanded universally. The deleterious social effects of poverty are now recognized as well, and there are serious efforts to eradicate extreme poverty altogether.

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.

Today's concepts of conservatism and liberalism are deeply steeped in these last few centuries of history. Conservatism is defined partly by militaristic nationalism and loyalty to the church. Liberalism is influenced by labor, secularism, urbanization, and globalism. Each side misunderstands the other in significant ways. Today's conservatives still associate globalism with Lenin, atheism with the Reign of Terror, and secularism with Nazism. Liberals still connect free trade to class conflict and multinational corporations to imperialism. These are outdated and overly simplistic judgments of guilt by association. It will take modern ideas to continue improving a modern world. But first, we have to understand these ideas for what they really are.

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