

BENEFITS OF EQUALITY

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INTRODUCTION¹

“If Trump is a symptom, what is the disease?” One often encounters this interesting question in alternative media articles. I think that at least part of the answer is “Excessive economic inequality”.

Hobson’s explanation of imperialism

The English economist and Fabian, John Atkinson Hobson (1858-1940), offered a famous explanation of the colonial era in his book *Imperialism: A Study* (1902). According to Hobson, the basic problem that led to colonial expansion was an excessively unequal distribution of incomes in the industrialized countries. The result of this unequal distribution was that neither the rich nor the poor could buy back the total output of their society. The incomes of the poor were insufficient, and rich were too few in number. The rich had finite needs, and tended to reinvest their money. As Hobson pointed out, reinvestment in new factories only made the situation worse by increasing output.

Hobson had been sent as a reporter by the Manchester Guardian to cover the Second Boer War. His experiences had convinced him that colonial wars have an economic motive. Such wars are fought, he believed, to facilitate investment of the excess money of the rich in African or Asian plantations and mines, and to make possible the overseas sale of excess manufactured goods. Hobson believed imperialism to be immoral, since it entails suffering both among colonial peoples and among the poor of the industrial nations. The cure that he recommended was a more equal distribution of incomes in the manufacturing countries.

Interestingly, TED Talks (ideas worth spreading) was recently under fire from many progressive groups for censoring a short talk by the adventure capitalist, Nick Hanauer, entitled “Income Inequality”. In this talk, Hanauer said exactly the same thing as John Hobson, but he applied the ideas, not to colonialism, but to current unemployment in the United States. Hanauer said that the rich are unable to consume the products of society because they are too few in number. To make an economy work, demand must be increased, and for this to happen, the distribution of incomes must become much more equal than it is today in the United States.

¹This book consists mainly of chapters and articles that I have previously written, but some new material has been added.

TED has now posted Hanauer's talk, and the interested reader can find another wonderful TED talk dealing with the same issues from the standpoint of health and social problems. In a splendid lecture entitled *How economic inequality harms societies*, Richard Wilkinson demonstrates that there is almost no correlation between gross national product and a number of indicators of the quality of life, such as physical health, mental health, drug abuse, education, imprisonment, obesity, social mobility, trust, violence, teenage pregnancies and child well-being. On the other hand he offers comprehensive statistical evidence that these indicators are strongly correlated with the degree of inequality within countries, the outcomes being uniformly much better in nations where income is more equally distributed.

Warren Buffet famously remarked, "There's class warfare, all right. But it's my class, the rich class, that's making war, and we're winning." However, the evidence presented by Hobson, Hanauer and Wilkinson shows conclusively that no one wins in a society where inequality is too great, and everyone wins when incomes are more evenly distributed.

Extreme inequality today

Here are two quotations from a report by the Global Inequality organization:²

"Inequality has been on the rise across the globe for several decades. Some countries have reduced the numbers of people living in extreme poverty. But economic gaps have continued to grow as the very richest amass unprecedented levels of wealth. Among industrial nations, the United States is by far the most top-heavy, with much greater shares of national wealth and income going to the richest 1 percent than any other country."

"The world's 10 richest billionaires, according to Forbes, own \$745 billion in combined wealth, a sum greater than the total goods and services most nations produce on an annual basis. The globe is home to 2,208 billionaires, according to the 2018 Forbes ranking."

Corporate oligarchs control governments and the mainstream media

Today, the world faces two existential threats, the threat of an all-destroying thermonuclear war, and the threat of uncontrollable catastrophic climate

²<https://inequality.org/facts/global-inequality/>

change. In the United States, and several other countries, immensely rich corporate oligarchies use money to control both the mass media and politics, and the result is that no action is taken to save the future of the earth for our children and grandchildren.

It is not surprising that the fossil fuel industry supports, on a vast scale, politicians and mass media that deny the reality of climate change. The amounts of money at stake are vast. If catastrophic climate change is to be avoided, coal, oil and natural gas “assets” worth trillions of dollars must be left in the ground. Giant fossil fuel corporations are desperately attempting to turn these “assets” into cash.

Our military-industrial complexes maintain the threat of thermonuclear war, as well as spending vast amounts of government money that could alternatively be used for social programs or renewable energy infrastructure. A military-industrial complex involves a circular flow of money. The money flows like the electrical current in a dynamo, driving a diabolical machine. Money from immensely rich corporate oligarchs buys the votes of politicians and the propaganda of the mainstream media. Numbed by the propaganda, citizens allow the politicians to vote for obscenely bloated military budgets, which further enrich the corporate oligarchs, and the circular flow continues.

Excessive economic inequality is at the root of the decay of democracy and the drift towards neofacism in a number of countries. It is not a coincidence that the United States and Brazil, two of the countries where inequality is the greatest, now have governments characterized by racism, militarism, cruelty, mysogeny, decay of democracy and climate change denial.

Economic equality and climate action in Scandinavia

Senator Bernie Sanders, a popular reformist candidate for the US Presidency in 2016 and 2020, has said that he is a socialist. When asked to explain in detail what he meant by that, Sanders said that he believed that the US would benefit from having a social and economic system similar to those of Scandinavia.

The Green New Deal can simultaneously address the climate crisis and the problem of excessive economic inequality. In this context, it is interesting to look at the social and economic systems of the Scandinavian countries, Norway, Sweden, Finland, Denmark and Iceland. In these countries the contrast between the rich and poor has been very much reduced. It is almost true to say that poverty has been eliminated in these countries. At the

same time, the Scandinavians have strong policies to address the climate emergency. Thus Scandinavian successes are a counter-argument to those who say that the Green New Deal cannot be put into practice.

Renewable energy in Denmark

Here are some excerpts from a recent report by the Danish Ministry of Energy, Utilities and Climate:

“Denmark’s success in transforming into a sustainable, green society is widely recognized. Denmark is at the forefront of numerous international initiatives and collaborative endeavors. In 2017, for the second consecutive year in a row, Denmark won the World Energy Council award for the world’s best energy system.”

“In 2017, Denmark achieved a world record of 43.4% power produced solely by wind turbines. Denmark can cover the largest share of its electricity production with green power from wind turbines. Denmark is also a European leader in the export of energy technology, as exports of energy equipment account for a larger share of total exports than in any other EU country.”

“The government has set ambitious goals that few other countries can match: At least 50% of Denmark’s energy needs must be covered by renewable energy by 2030. Coal must be completely phased out of the power supply by 2030. Moratorium on all exploration and drilling activities for oil, gas and shale gas on land and inland waters of Denmark. Denmark must be a low-emission society independent of fossil fuels in 2050.”

Eliminating excessive economic inequality increases happiness

For many years, the Scandinavian countries have ranked as the best places to live, according to the World Happiness Report. Perhaps these countries can serve as models, if we wish the future of human society to be a happy one. A step towards both happiness and sustainability must be the elimination of excessive economic inequality.

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Chapter 1

IDEALS OF THE ENLIGHTENMENT

1.1 The Age of Reason

Political philosophy of the Enlightenment

The 16th, 17th and 18th centuries have been called the “Age of Discovery”, and the “Age of Reason”, but they might equally well be called the “Age of Observation”. On every side, new worlds were opening up to the human mind. The great voyages of discovery had revealed new continents, whose peoples demonstrated alternative ways of life. The telescopic exploration of the heavens revealed enormous depths of space, containing myriads of previously unknown stars; and explorations with the microscope revealed a new and marvelously intricate world of the infinitesimally small.

In the science of this period, the emphasis was on careful observation. This same emphasis on observation can be seen in the Dutch and English painters of the period. The great Dutch masters, such as Jan Vermeer (1632-1675), Frans Hals (1580-1666), Pieter de Hooch (1629-1678) and Rembrandt van Rijn (1606-1669), achieved a careful realism in their paintings and drawings which was the artistic counterpart of the observations of the pioneers of microscopy, Anton van Leeuwenhoek and Robert Hooke. These artists were supported by the patronage of the middle class, which had become prominent and powerful both in England and in the Netherlands because of the extensive world trade in which these two nations were engaged.

Members of the commercial middle class needed a clear and realistic view of the world in order to succeed with their enterprises. (An aristocrat of the period, on the other hand, might have been more comfortable with a somewhat romanticized and out-of-focus vision, which would allow him to overlook the suffering and injustice upon which his privileges were based.) The rise of the commercial middle class, with its virtues of industriousness, common sense and realism, went hand in hand with the rise of experimental science, which required the same virtues for its success.

In England, the House of Commons (which reflected the interests of the middle class),

had achieved political power, and had demonstrated (in the Puritan Rebellion of 1640 and the Glorious Revolution of 1688) that Parliament could execute or depose any monarch who tried to rule without its consent. In France, however, the situation was very different.

After passing through a period of disorder and civil war, the French tried to achieve order and stability by making their monarchy more absolute. The movement towards absolute monarchy in France culminated in the long reign of Louis XIV, who became king in 1643 and who ruled until he died in 1715.

The historical scene which we have just sketched was the background against which the news of Newton's scientific triumph was received. The news was received by a Europe which was tired of religious wars; and in France, it was received by a middle class which was searching for an ideology in its struggle against the *ancien régime*.

To the intellectuals of the 18th century, the orderly Newtonian cosmos, with its planets circling the sun in obedience to natural law, became an imaginative symbol representing rationality. In their search for a society more in accordance with human nature, 18th century Europeans were greatly encouraged by the triumphs of science. Reason had shown itself to be an adequate guide in natural philosophy. Could not reason and natural law also be made the basis of moral and political philosophy? In attempting to carry out this program, the philosophers of the Enlightenment laid the foundations of psychology, anthropology, social science, political science and economics.

One of the earliest and most influential of these philosophers was John Locke (1632-1705), a contemporary and friend of Newton. In his *Second Treatise on Government*, published in 1690, John Locke's aim was to refute the doctrine that kings rule by divine right, and to replace that doctrine by an alternative theory of government, derived by reason from the laws of nature. According to Locke's theory, men originally lived together without formal government:

"Men living together according to reason," he wrote, "without a common superior on earth with authority to judge between them, is properly the state of nature... A state also of equality, wherein all the power and jurisdiction is reciprocal, no one having more than another; there being nothing more evident than that creatures of the same species, promiscuously born to all the same advantages of nature and the use of the same facilities, should also be equal amongst one another without subordination or subjection..."

"But though this be a state of liberty, yet it is not a state of licence... The state of nature has a law to govern it, which obliges every one; and reason, which is that law, teaches all mankind who will but consult it, that being equal and independent, no one ought to harm another in his life, health, liberty or possessions."

In Locke's view, a government is set up by means of a social contract. The government is given its powers by the consent of the citizens in return for the services which it renders to them, such as the protection of their lives and property. If a government fails to render these services, or if it becomes tyrannical, then the contract has been broken, and the citizens must set up a new government.

Locke's influence on 18th century thought was very great. His influence can be seen, for example, in the wording of the American Declaration of Independence. In England,

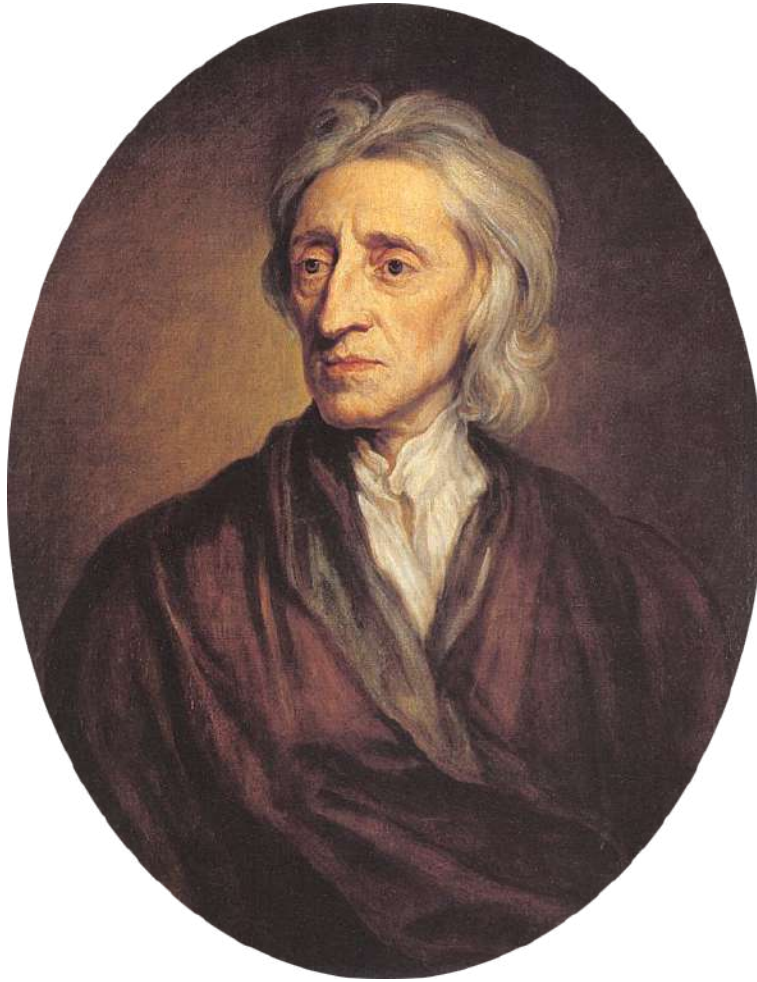


Figure 1.1: John Locke (1632-1705): “Men living together according to reason, without a common superior on earth with authority to judge between them, is properly the state of nature... A state also of equality, wherein all the power and jurisdiction is reciprocal, no one having more than another; there being nothing more evident than that creatures of the same species, promiscuously born to all the same advantages of nature and the use of the same facilities, should also be equal amongst one another without subordination or subjugation...”

Locke's political philosophy was accepted by almost everyone. In fact, he was only codifying ideas which were already in wide circulation and justifying a revolution which had already occurred. In France, on the other hand, Locke's writings had a revolutionary impact.

Credit for bringing the ideas of both Newton and Locke to France, and making them fashionable, belongs to Francois Marie Arouet (1694-1778), better known as "Voltaire". Besides persuading his mistress, Madame de Chatelet, to translate Newton's *Principia* into French, Voltaire wrote an extremely readable commentary on the book; and as a result, Newton's ideas became highly fashionable among French intellectuals. Voltaire lived with Madame du Chatelet until she died, producing the books which established him as the leading writer of Europe, a prophet of the Age of Reason, and an enemy of injustice, feudalism and superstition.

The Enlightenment in France is considered to have begun with Voltaire's return from England in 1729; and it reached its high point with the publication of the *Encyclopedia* between 1751 and 1780. Many authors contributed to the *Encyclopedia*, which was an enormous work, designed to sum up the state of human knowledge.

Turgot and Montesquieu wrote on politics and history; Rousseau wrote on music, and Buffon on natural history; Quesnay contributed articles on agriculture, while the Baron d'Holbach discussed chemistry. Other articles were contributed by Condorcet, Voltaire and d'Alembert. The whole enterprise was directed and inspired by the passionate faith of Denis Diderot (1713-1784). The men who took part in this movement called themselves "*philosophes*". Their creed was a faith in reason, and an optimistic belief in the perfectibility of human nature and society by means of education, political reforms, and the scientific method.

The *philosophes* of the Enlightenment visualized history as a long progression towards the discovery of the scientific method. Once discovered, this method could never be lost; and it would lead inevitably (they believed) to both the material and moral improvement of society. The *philosophes* believed that science, reason, and education, together with the principles of political liberty and equality, would inevitably lead humanity forward to a new era of happiness. These ideas were the faith of the Enlightenment; they influenced the French and American revolutions; and they are still the basis of liberal political belief.

1.2 Voltaire and Rousseau

Voltaire (1694-1778)

Francois-Marie Arouet, who later changed his name to Voltaire, was born in Paris. His father was a lawyer and a minor treasury official, while his mother's family was on the lowest rank of the French nobility. He was educated by Jesuits at Collège Louis-le-Grande, where he learned Latin theology and rhetoric. He later became fluent in Italian, Spanish and English.

Despite his father's efforts to make him study law, the young Voltaire was determined to become a writer. He eventually became the author of more than 2,000 books and pamphlets

and more than 20,000 letters. His works include many forms of writing, including plays, poems, novels, essays and historical and scientific works. His writings advocated civil liberties, and he used his satirical and witty style of writing to criticize intolerance, religious dogma and absolute monarchy. Because of the intolerance and censorship of his day, he was frequently in trouble and sometimes imprisoned. Nevertheless, his works were very popular, and he eventually became extremely rich, partly through clever investment of money gained through part ownership of a lottery.

During a period of forced exile in England, Voltaire mixed with the English aristocracy, meeting Alexander Pope, John Gay, Jonathan Swift, Lady Mary Wortley Montague, Sarah, Duchess of Marlborough, and many other members of the nobility and royalty. He admired the English system of constitutional monarchy, which he considered to be far superior to the absolutism then prevailing in France. In 1733, he published a book entitled *Letters concerning the English Nation*, in London. When French translation was published in 1734, Voltaire was again in deep trouble. In order to avoid arrest, he stayed in the country château belonging to Émilie du Châtelet and her husband, the Marquis du Châtelet.

As a result, Madame du Châtelet became his mistress and the relationship lasted for 16 years. Her tolerant husband, the Marquis, who shared their intellectual and scientific interests, often lived together with them. Voltaire paid for improvements to the château, and together, the Marquis and Voltaire collected more than 21,000 books, and enormous number for that time. Madame du Châtelet translated Isaac Newton's great book, *Principia Mathematica*, into French, and her translation was destined to be the standard one until modern times. Meanwhile, Voltaire wrote a French explanation of the ideas of the *Principia*, which made these ideas accessible to a wide public in France. Together, the Marquis, his wife and Voltaire also performed many scientific experiments, for example experiments designed to study the nature of fire.

Voltaire's vast literary output is available today in approximately 200 volumes, published by the University of Oxford, where the Voltaire Foundation is now established as a research department.

Rousseau (1712-1778)

In 1754 Rousseau wrote: "The first man who, having fenced in a piece of land, said 'This is mine', and found people naïve enough to believe him, that man was the true founder of civil society. From how many crimes, wars, and murders, from how many horrors and misfortunes might not any one have saved mankind, by pulling up the stakes, or filling up the ditch, and crying to his fellows: Beware of listening to this impostor; you are undone if you once forget that the fruits of the earth belong to us all, and the earth itself to nobody."

Later, he began his influential book *The Social Contract*, published in 1752, with the dramatic words: "Man is born free, and everywhere he is in chains. Those who think themselves the masters of others are indeed greater slaves than they." Rousseau concludes Chapter 3 of this book with the words: "Let us then admit that force does not create right, and that we are obliged to obey only legitimate powers". In other words, the ability to



Figure 1.2: Voltaire used his satirical and witty style of writing to criticize intolerance, religious dogma and absolute monarchy. He wrote more than 2,000 books and pamphlets and more than 20,000 letters. His writings made a significant contribution to the Enlightenment, and paved the way for revolutions both in France and America.



Figure 1.3: The frontpiece of Voltaire's book popularizing Newton's ideas for French readers. Madame du Châtelet appears as a muse, reflecting Newton's thoughts down to Voltaire.

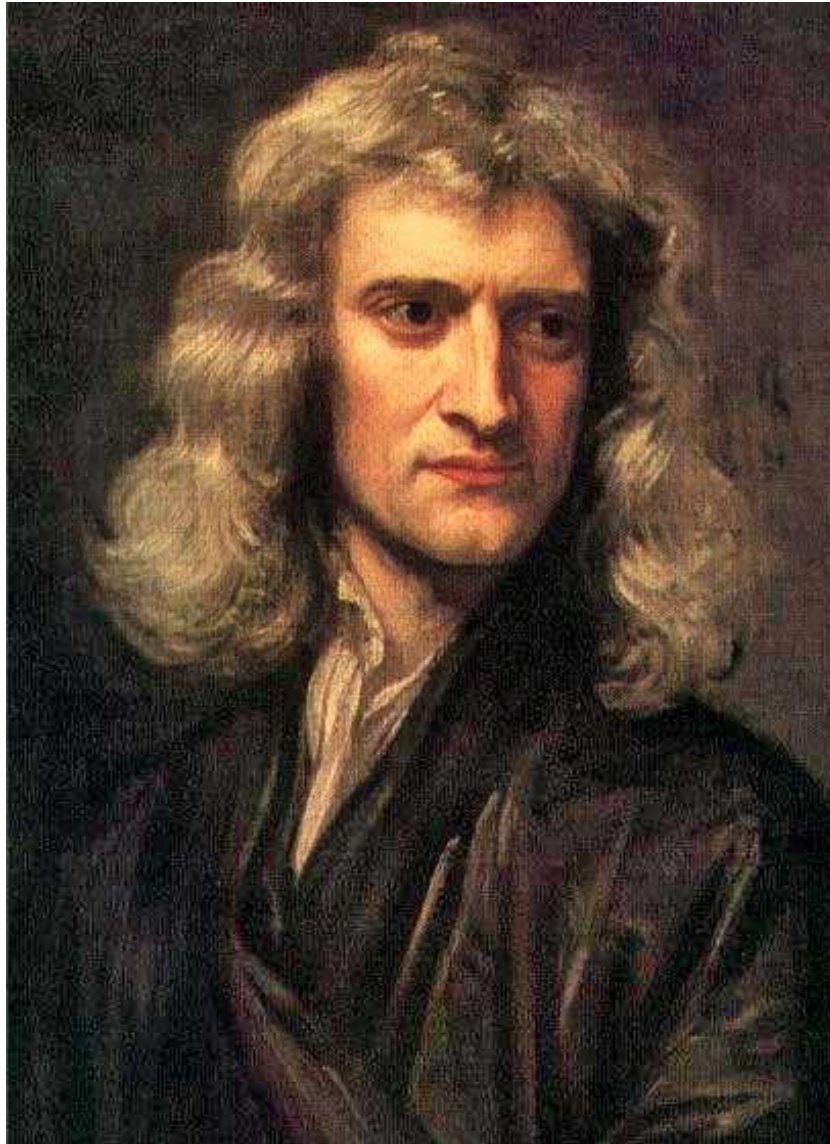


Figure 1.4: The work of Sir Isaac Newton (1642-1726) illustrates a key aspect of human cultural evolution: Because of the introduction of printing in Europe, Newton was able to build on the work of his predecessors, Copernicus, Brahe, Galileo and Kepler. He could never have achieved his great synthesis alone. During the Enlightenment, Newton became a symbol of rationality and reason. Alexander Pope wrote: “Nature, and nature’s laws, lay hid in night. God said ‘Let Newton be’, and all was light!”

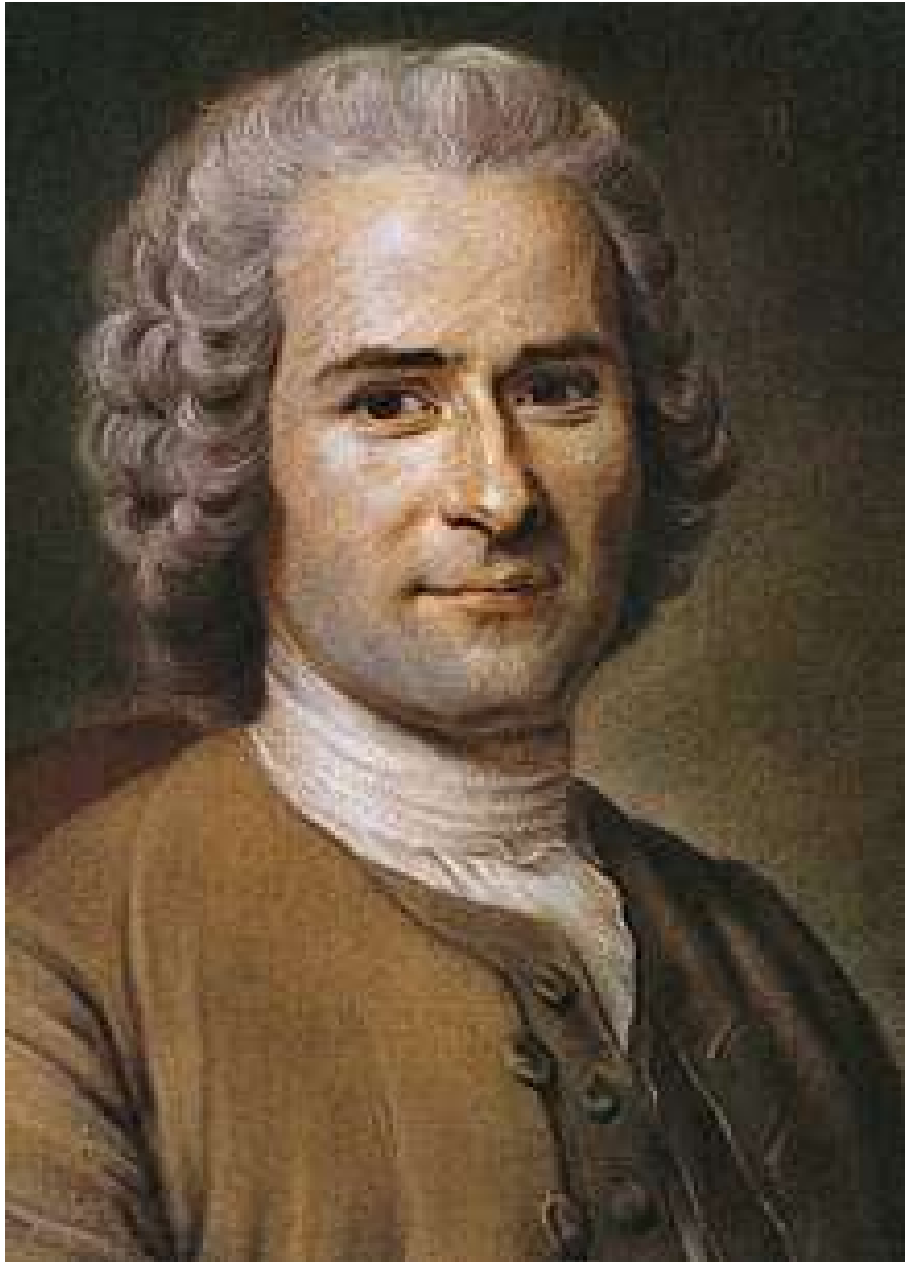


Figure 1.5: Unlike Voltaire, Rousseau was not an advocate of science, but instead believed in the importance of emotions. He believed that civilization has corrupted humans rather than making them better. Rousseau was a pioneer of the romantic movement. His book, *The Social Contract*, remains influential today.

coerce is not a legitimate power, and there is no rightful duty to submit to it. A state has no right to enslave a conquered people.

These ideas, and those of John Locke, were reaffirmed in 1776 by the American Declaration of Independence: “We hold these truths to be self-evident: That all men are created equal. That they are endowed by their Creator with certain inalienable rights, and among these are the rights to life, liberty and the pursuit of happiness; and that to pursue these rights, governments are instituted among men, deriving their just powers from the consent of the governed.”

Today, in an era of government tyranny and subversion of democracy, we need to remember that the just powers of any government are not derived from the government’s ability to use of force, but exclusively from the consent of the governed.

1.3 The printer and publisher Joseph Johnson

As an example of the influence of printing on the liberation of ideas, we can consider the circle of important authors that formed around the English printer and publisher Joseph Johnson (1738-1809). His weekly dinners for authors were famous. Among the many great thinkers, artists, scientists, writers and religious dissenters who attended these dinners, or whose works he published, were William Cowper, Erasmus Darwin, William Blake, Henry Fuseli, Mary Wollstonecraft, William Godwin, Thomas Robert Malthus, Thomas Paine, Priscilla Wakefield, Gilbert Wakefield, Benjamin Franklin, Richard Price and Joseph Priestly.

Throughout her career, the pioneering feminist writer Mary Wollstonecraft was aided by Johnson. As she wrote to her sister, she had decided to become the first of a new genus: a professional female writer. Having learned French and German, she translated Necker's *Of the Importance of Religious Opinions* and Saltzman's *Elements of Morality for the Use of Children*. Mary was helped in her new career by the liberal publisher, Joseph Johnson, who was also the publisher of Thomas Paine and William Godwin. Mary met these already famous authors at Johnson's dinner parties, and conversations with them helped to expand her knowledge and ambitions. Joseph Johnson was a very brave man. By publishing the works of radical authors, he was risking arrest by England's repressive government. In her letters, Mary described Johnson as "a father and brother".

At Johnson's parties Mary met, for the second time, the famous novelist and philosopher William Godwin. This time, they both formed a higher opinion of each other than at their first meeting. A passionate love affair developed between them, and when Mary became pregnant, they were married. Tragically, Mary Wollstonecraft died in childbirth. Her daughter Mary would later become the wife of Godwin's admirer, the poet Percy Bysshe Shelley, and Mary Shelly created the enduring masterpiece *Frankenstein*.



Figure 1.6: The printer and publisher Joseph Johnson (1738-1809). Johnson was the publisher of William Godwin, Mary Wollstonecraft and Thomas Paine. His dinner parties included many famous dissenting thinkers of the time.



Figure 1.7: Mary Wollstonecraft in a painting by John Opie. She called Joseph Johnson “my father and brother”.



Figure 1.8: The famous scientist and dissenter, Joseph Priestly, in a portrait by Henry Fuseli, commissioned by Joseph Johnson. Priestly and Fuseli were among Johnson's closest friends.

1.4 Mary Wollstonecraft's *Vindication of the Rights of Woman*

Mary Wollstonecraft, whom we mentioned above in connection with the publisher Joseph Johnson, published a book in 1792 entitled *Vindication of the Rights of Woman*. In it she said:

“My main argument is built on this simple principle, that if [woman] be not prepared by education to become the companion of man, she will stop the progress of knowledge and virtue; for truth must be common to all”.

Wollstonecraft contends that society will degenerate without educated women, particularly because mothers are the primary educators of young children. She attributes the problem of uneducated women to men and to “...a false system of education, gathered from the books written on this subject by men who [consider] females rather as women than human creatures”

“Taught from their infancy that beauty is woman's scepter, the mind shapes itself to the body, and, roaming round its gilt cage, only seeks to adorn its prison.

“I then would fain convince reasonable men of the importance of some of my remarks; and prevail on them to weigh dispassionately the whole tenor of my observations. I appeal to their understandings; and, as a fellow-creature, claim, in the name of my sex, some interest in their hearts. I entreat them to assist to emancipate their companion, to make her a help meet for them! Would men but generously snap our chains, and be content with rational fellowship instead of slavish obedience, they would find us more observant daughters, more affectionate sisters, more faithful wives, more reasonable mothers: in a word, better citizens.

1.5 William Blake

Education as an engraver and printmaker

William Blake was born in 1757 in the Soho district of London. He was the third of seven children, two of whom died in infancy. His parents, who were English Dissenters, seem to have been reasonable wealthy during his childhood, since his father was able to purchase many books for him. Among these were books of engravings and drawings through which Blake became familiar with the works of Michelangelo, Raphael and Albrecht Dürer.

Recognizing their son's extremely independent temperament and his gifts as an artist, his parents sent him to an ordinary school only long enough to learn reading and writing, after which he was tutored at home by his mother, and later apprenticed to an engraver and printmaker. After he had finished his apprenticeship, the young Blake became a student at the Royal Academy. Finally, he opened his own engraving and printmaking shop.

Blake continued to read avidly on topics of all kinds, but was most influenced by his studies of the Bible.



Figure 1.9: Newton depicted in a print by William Blake (public domain).

Marriage

In 1782, while recovering from the pain of a rejected marriage proposal, Blake met Catherine Boucher, who was five years his junior. He told Catherine about the pain he had experienced and asked “Do you pity me?” When she answered that she did, Blake replied “Then I love you”.

Blake’s marriage to Catherine was an extremely happy one. She was illiterate, but he taught her to read and write. Later he also trained her as an engraver. She was an invaluable help to him, and she lifted his spirits whenever he was burdened by misfortunes. She said of her husband, “He is always in Heaven”.

Political activity

William Blake’s first collection of poems, *Poetical Sketches*, was printed around 1783. After his father’s death, Blake and former fellow apprentice James Parker opened a print shop in 1784, and began working with radical publisher Joseph Johnson. Johnson’s house was

a meeting-place for some leading English intellectual dissidents of the time: theologian and scientist Joseph Priestley, philosopher Richard Price, artist John Henry Fuseli, early feminist Mary Wollstonecraft and English-American revolutionary Thomas Paine. Along with William Wordsworth and William Godwin, Blake had great hopes for the French and American revolutions, but despaired with the rise of Robespierre and the Reign of Terror in France.

Blake illustrated *Original Stories from Real Life* (2nd edition, 1791) by Mary Wollstonecraft. They seem to have shared some views on sexual equality and the institution of marriage. In 1793 Blake published *Visions of the Daughters of Albion*, in which he condemned the cruel absurdity of enforced marriage without love and defended the right of women to complete self-fulfilment.

Some verses from Blake's *Auguries of Innocence*

To see a World in a Grain of Sand
And a Heaven in a Wild Flower
Hold Infinity in the palm of your hand
And Eternity in an hour

A Robin Red breast in a Cage
Puts all Heaven in a Rage

A Dove house filled with Doves & Pigeons
Shudders Hell thr' all its regions

A dog starvd at his Masters Gate
Predicts the ruin of the State

A Horse misusd upon the Road
Calls to Heaven for Human blood

Each outcry of the hunted Hare
A fibre from the Brain does tear

A Skylark wounded in the wing
A Cherubim does cease to sing

The Game Cock clipd & armd for fight
Does the Rising Sun affright

Every Wolfs & Lions howl
Raises from Hell a Human Soul

The wild deer, wandring here & there
Keeps the Human Soul from Care

The Lamb misusd breeds Public Strife
And yet forgives the Butchers knife

The Bat that flits at close of Eve
Has left the Brain that wont Believe

The Owl that calls upon the Night
Speaks the Unbelievers fright

He who shall hurt the little Wren
Shall never be belovd by Men

He who the Ox to wrath has moved
Shall never be by Woman loved

The wanton Boy that kills the Fly
Shall feel the Spiders enmity

He who torments the Chafers Sprite
Weaves a Bower in endless Night

The Catterpillar on the Leaf
Repeats to thee thy Mothers grief

Kill not the Moth nor Butterfly
For the Last Judgment draweth nigh

He who shall train the Horse to War
Shall never pass the Polar Bar

The Beggars Dog & Widows Cat
Feed them & thou wilt grow fat

The Gnat that sings his Summers Song
Poison gets from Slanders tongue

The poison of the Snake & Newt
Is the sweat of Envys Foot

The poison of the Honey Bee
Is the Artists Jealousy

The Princes Robes & Beggars Rags
Are Toadstools on the Misers Bags

A Truth thats told with bad intent
Beats all the Lies you can invent

The Whore & Gambler by the State
Licencd build that Nations Fate

The Harlots cry from Street to Street
Shall weave Old Englands winding Sheet

The Winners Shout the Losers Curse
Dance before dead Englands Hearse

Every Night & every Morn
Some to Misery are Born
Every Morn and every Night
Some are Born to sweet delight
Some are Born to sweet delight
Some are Born to Endless Night.

Jerusalem

And did those feet in ancient time
Walk upon England's mountains green?
And was the holy Lamb of God
On England's pleasant pastures seen?

And did the Countenance Divine
Shine forth upon our clouded hills?
And was Jerusalem builded here
Among these dark Satanic Mills?

Bring me my bow of burning gold!
Bring me my arrows of desire!
Bring me my spear! O clouds, unfold!
Bring me my chariot of fire!

I will not cease from mental fight,
 Nor shall my sword sleep in my hand,
 Till we have built Jerusalem
 In England's green and pleasant land.

London

I wandered through each chartered street
 Near which the chartered Thames doth flow.
 A mark in every face I meet,
 Marks of weakness, marks of woe.

In every cry of every man,
 In every infant's cry of fear,
 In every voice, in every ban,
 The mind-forged manacles I hear.

How the chimney-sweeper's cry
 Every blackening church appalls,
 And how the hapless soldier's sigh
 Runs in blood down palace-walls.

But most, through midnight streets I hear
 How the youthful harlot's curse
 Blasts the new-born infant's tear,
 And blights with plagues the marriage-hearse.

1.6 William Godwin

Political Justice

In 1793 the English novelist and philosopher William Godwin published an enormously optimistic book, *Political Justice*. As the eighteenth century neared its end, this book became the focus of hopes for political reform and the center of the debate on human progress. Godwin was lifted briefly to enormous heights of fame and adulation, from which he plunged, a few years later, into relative obscurity.

In *Political Justice*, Godwin predicted a future society where scientific progress would liberate humans from material want. Godwin predicted that in the future, with the institution of war abolished, with a more equal distribution of property, and with the help of scientific improvements in agriculture and industry, much less labour would be needed

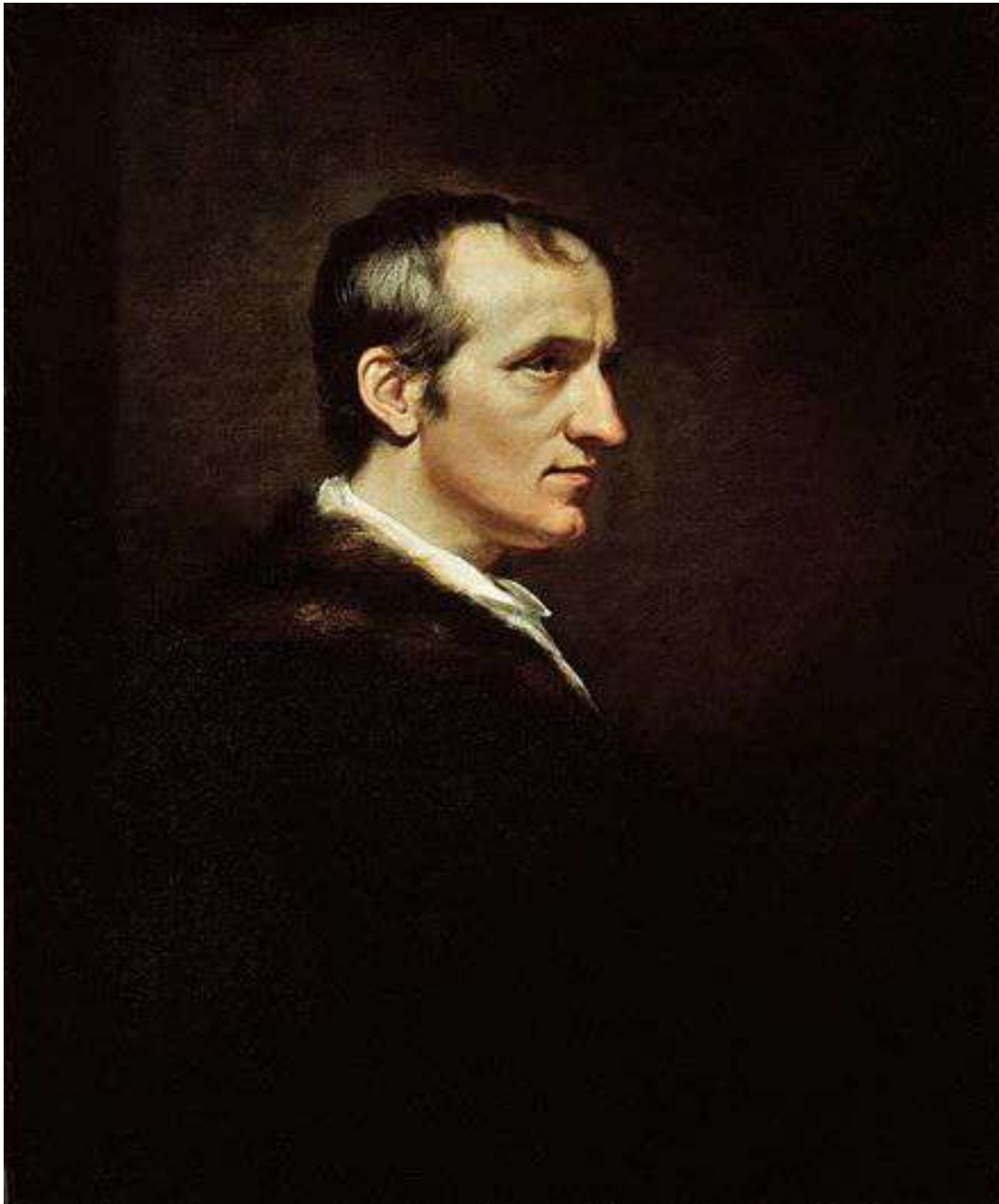


Figure 1.10: William Godwin in a painting by James Northcote (Wikipedia).

to support life. Luxuries are at present used to maintain artificial distinctions between the classes of society, Godwin wrote, but in the future values will change; humans will live more simply, and their efforts will be devoted to self-fulfillment and to intellectual and moral improvement, rather than to material possessions. With the help of automated agriculture, the citizens of a future society will need only a few hours a day to earn their bread.

Godwin went on to say, "The spirit of oppression, the spirit of servility and the spirit of fraud - these are the immediate growth of the established administration of property. They are alike hostile to intellectual improvement. The other vices of envy, malice, and revenge are their inseparable companions. In a state of society where men lived in the midst of plenty, and where all shared alike the bounties of nature, these sentiments would inevitably expire. The narrow principle of selfishness would vanish. No man being obliged to guard his little store, or provide with anxiety and pain for his restless wants, each would lose his own individual existence in the thought of the general good. No man would be the enemy of his neighbor, for they would have nothing to contend; and of consequence philanthropy would resume the empire which reason assigns her. Mind would be delivered from her perpetual anxiety about corporal support, and free to expatiate in the field of thought which is congenial to her. Each man would assist the inquiries of all."

Godwin insisted that there is an indissoluble link between politics, ethics and knowledge. *Political Justice* is an enthusiastic vision of what humans could be like at some future period when the trend towards moral and intellectual improvement has lifted men and women above their their present state of ignorance and vice. Much of the savage structure of the penal system would then be unnecessary, Godwin believed. (At the time when he was writing, there were more than a hundred capital offenses in England, and this number had soon increased to almost two hundred. The theft of any object of greater value than ten shillings was punishable by hanging.)

In its present state, Godwin wrote, society decrees that the majority of its citizens "should be kept in abject penury, rendered stupid with ignorance and disgustful with vice, perpetuated in nakedness and hunger, goaded to the commission of crimes, and made victims to the merciless laws which the rich have instituted to oppress them". But human behavior is produced by environment and education, Godwin pointed out. If the conditions of upbringing were improved, behavior would also improve. In fact, Godwin believed that men and women are subject to natural laws no less than the planets of Newton's solar system. "In the life of every human", Godwin wrote, "there is a chain of causes, generated in that eternity which preceded his birth, and going on in regular procession through the whole period of his existence, in consequence of which it was impossible for him to act in any instance otherwise than he has acted."

The chain of causality in human affairs implies that vice and crime should be regarded with the same attitude with which we regard disease. The causes of poverty, ignorance, vice and crime should be removed. Human failings should be cured rather than punished. With this in mind, Godwin wrote, "our disapprobation of vice will be of the same nature as our disapprobation of an infectious distemper."

With improved environment and education, humans will reach a higher moral level.

But what is morality? Here Godwin draws heavily on his Christian background, especially on the moral principles of the Dissenting community. The Parable of the Good Samaritan illustrates the central principle of Christian ethics: We must love our neighbor as much as we love ourselves; but our neighbor is not necessarily a member of our immediate circle. He or she may be distant from us, in culture, in ethnic background or in geographical distance. Nevertheless, that person is still our neighbor, a member of the human family, and our duty to him or her is no less than our duty to those who are closest to us. It follows that narrow loyalties must be replaced or supplemented by loyalty to the interests of humanity as a whole.

Judging the benevolence of our actions is the responsibility of each individual conscience, Godwin says, not the responsibility of the State, and the individual must follow his or her conscience even if it conflicts with the dictates of the State. Each individual case should be judged by itself. If our institutions and laws meet the criteria of benevolence, justice and truth, we should give them our enthusiastic support; if not, we should struggle to change them. In giving personal judgement such a dominant role, Godwin anticipates the ideas of Thoreau, Tolstoy and Gandhi.

The exercise of individual judgement requires great honesty and objectivity. In order for the power of truth and reason to overcome prejudice and error, Godwin says, it is necessary for each person always to speak and act with complete sincerity. Even the degree of insincerity necessary for elegant manners is wrong in Godwin's opinion.

Starting with these ethical principles, Godwin proceeds with almost mathematical logic to deduce the consequences, intoxicated by his enthusiasm and not stopping even when the conclusions to which he is driven conflict with conventional wisdom and intuition. For example, he denies that humans have rights and maintains that they only have duties.

Regarding the right to dispose of private property as one chooses, Godwin says: "To whom does any article, suppose a loaf of bread, justly belong? I have an hundred loaves in my possession, and in the next street there is a poor man expiring with hunger, to whom one of these loaves would be a means of preserving his life. If I withhold this loaf from him, am I not unjust? If I impart it, am I not complying with what justice demands?"

In other words, according to Godwin, our duty to act for the benefit of humanity implies a sacrifice of our private rights as individuals. Private property is not really our own, to be used as we wish; it is held in trust, to be used where it will do the greatest amount of good for humanity as a whole.

Godwin also denies that several commonly admired virtues really are virtues. Keeping promises, he says, is not a virtue because at any given moment we have a duty to do the greatest possible good through our actions. If an act is good, we should do it because we believe it to be good, not because we have promised to do it; and a promise should not force us to perform an act which we believe to be bad. A virtuous person therefore does not make promises. Similarly, Godwin maintains that gratitude is a vice since it distorts our judgement of the benevolence of our actions. When he heard of Godwin's doctrine on gratitude, Edmund Burke remarked "I would save him from that vice by not doing him any service!"

Godwin saw the system of promises, loyalty, and gratitude as a means by which indi-

vidual judgement can be suspended and tyranny maintained. People can be forced to act against their consciences because of promises which they have made or services which they have received. An example of this is the suspension of private ethical judgement which follows a soldier's induction into an army. We should perform an act, Godwin maintains, not because of fear of punishment or hope of reward or in return for favors that we have received, but rather because we believe the act to be of the highest benefit to humanity as a whole.

Many of our political institutions may be needed now, Godwin said, because of mankind's present faults; but in the future, when humanity has reached a higher level of perfection, they will be needed less and less. The system of nation states might then be replaced by a loose federation of small communities, within each of which problems could be resolved by face-to-face discussion. Regarding this future ideal system, Godwin writes: "It is earnestly to be desired that each man was wise enough to govern himself without the interference of any compulsory restraint; and since government in its best state is an evil, the object principally to be aimed at is, that we should have as little of it as the general peace of human society will permit."

Political Justice is a vision or prophesy of what human life might be like, not in the world as it is but in an ideal world of the future. As Godwin's disciple, Percy Bysshe Shelley, later expressed it in his verse-drama *Prometheus Unbound*,

*The loathsome mask has fallen, the man remains
Sceptreless, free, uncircumscribed, but man
Equal, unclassed, tribeless, and nationless,
Exempt from awe, worship, degree, the king
Over himself; just, gentle, wise...*

Enormous instant fame; The New Philosophy

The quarto edition of *Political Justice* was a best seller and the book was soon republished in a less expensive octavo edition which sold equally well. It was pirated in Ireland, Scotland, and America and hundreds of groups of workers who could not afford to buy the book individually bought joint copies, which then circulated among the subscribers or were read aloud to groups. The doctrines advocated in *Political Justice* were soon being called the "New Philosophy".

Godwin became famous overnight: "I was nowhere a stranger", he wrote later, "...I was everywhere received with curiosity and kindness. If temporary fame ever was an object worthy to be coveted by the human mind, I certainly obtained it in a degree that has seldom been exceeded."

Godwin's friend, the essayist William Hazlitt, described this sudden burst of fame in the following words: "... he blazed as a sun in the firmament of reputation; no-one was more talked of, more looked up to, more sought after, and wherever liberty, truth, justice was the theme, his name was not far off".

William Wordsworth read *Political Justice* in 1794 and was greatly influenced by it. Between February and August 1795, Wordsworth met Godwin seven times for long private discussions. Much of Wordsworth's writing from the Great Decade shows the mark of Godwin's ideas, as can be seen, for example in the following lines from *The Prelude*:

*How glorious! in self-knowledge and self-rule,
To look through all the frailties of the world,
And, with a resolute mastery shaking off
Infirmities of nature, time and place,
Build social upon personal Liberty,
Which, to the blind restraints of general laws
Superior, magisterially adopts
One guide, the light of circumstances, flashed
Upon an independent intellect*

Things as they are

On 26 May 1794, Godwin added to his already great reputation by publishing a powerful and original psychological novel, *Things as They Are*, later renamed *Caleb Williams*. Godwin's purpose in writing this novel was to illustrate some of the themes of *Political Justice* and to bring his ideas to readers who might not be directly interested in philosophy.

In *Caleb Williams*, Godwin makes several literary innovations which were to influence such writers as Edgar Allan Poe, Charles Dickens, Balzac, and Victor Hugo. *Caleb Williams* is, in fact, the ancestor of the modern thriller and detective story.

A few hangings needed to cast a chill over discussion

Godwin had written a Preface to *Caleb Williams* in which he said: "The question now afloat in the world respecting THINGS AS THEY ARE, is the most interesting which can be presented to the human mind. While one party pleads for reformation and change, the other extols in the warmest terms the existing constitution of society... It is now known to philosophers that the spirit and character of a government intrudes itself into every rank of society. But this is a truth highly worthy to be communicated to persons whom books of philosophy and science are never likely to reach. Accordingly it was proposed in the invention of the following work, to comprehend, as far as the progressive nature of a single story would allow, a general review of the modes of domestic and unrecorded tyranny." .

This Preface was never printed, because Godwin's publisher, Crosby, was afraid of prosecution. In fact, the publication of *Caleb Williams* coincided with a decision by Pitt's government that a few hangings were needed in order to cast a chill on public discussion of political reform. On the day of publication, orders went out for the arrest of Godwin's friends in the reform movement, Hardy, Thelwall, and Horne Tooke. Although the radical leaders were arrested in May, *habeas corpus* was suspended, and it was not until 2 October

1794 that a charge was brought against them. A few days later, on a trip to Warwickshire, Godwin heard that his closest friend, Thomas Holcroft, also had been arrested.

Godwin hurried back to London and locked himself in his home, studying the charges that had been brought by Lord Chief Justice Eyre against Holcroft and the others. The charge was high treason and the law under which Eyre brought this charge had been passed in the fourteenth century, during the reign of Edward III. It defined high treason as any act which could “compass or imagine the Death of a King”. The penalty for this offense was to be hanged by the neck, to be cut down while still living, to be disembowelled, to have one’s bowels burnt before one’s eyes, and then to be beheaded and quartered. It was rumored that as soon as the 12 prisoners were convicted, 800 further arrest warrants were ready to go out and Godwin’s own name might well have been among them.

Godwin soon saw that Eyre’s argument involved an unprecedented broadening of the definition of high treason. Essentially Eyre was arguing that the actions of the accused might cause events in England to follow the same course as in France, where Louis XVI had recently been executed. On 21 October Godwin published an anonymous article in the *Morning Chronicle* entitled *Cursory Strictures on the Charge Delivered by Lord Chief Justice Eyre*. It was a carefully written legal argument, completely different in style from anything that Godwin had written previously. In this article, he argued that in broadening the interpretation of high treason without precedent, Eyre was in effect creating a new law and judging the prisoners *ex post facto*. It was especially necessary for high treason to have a narrow definition, Godwin pointed out, since a broad definition could lead to the abridgement of all English civil liberties.

After the publication of *Cursory Strictures* it became clear to everyone that Eyre’s charge lay outside the boundary of the law and that it would probably not be upheld. Nevertheless, the atmosphere in the courtroom was tense as the jury returned its verdicts. As soon as Holcroft was acquitted, he left the dock and went to sit beside Godwin. The artist, Sir Thomas Lawrence, made a sketch of the two friends sitting side-by-side and waiting for the verdict on the other prisoners, Godwin’s bending and contemplative figure contrasting with Holcroft’s upright and defiant stance. In the end, all charges were dropped.

William and Mary

Soon after these dramatic events, William Godwin met Mary Wollstonecraft for a second time. On 8 January 1796, Mary Hayes, a friend and admirer of Mary Wollstonecraft, invited her to tea together with William Godwin and Thomas Holcroft. The tea was a success, and Godwin found Mary Wollstonecraft very much changed from the carelessly dressed and irritating woman who had dominated the conversation at Johnson’s dinner when he had wanted to hear Thomas Paine. Now, several years later, she had become much more attractive. Mary’s beauty and her charming, intelligent conversation won Godwin’s heart. He also greatly admired her recently published book, *Letters Written during a Short Residence in Sweden, Norway and Denmark*.

On 13 February, Godwin called on Mary Wollstonecraft, but she was not at home. On 14 April, she broke the social rules of the time and returned his call. During the next

few months they often appeared together at literary and artistic dinners in London. They had many friends in common and both of them had many admirers of the opposite sex. Godwin was not a tall man and his nose was rather large. On the other hand, he had fine eyes and a high, impressive brow; his manners had become more gallant and fame is a powerful aphrodisiac. A number of attractive intellectual women fluttered around him. Mary's admirers included the poet Robert Southey, the distinguished artist John Opie, and Godwin's closest friend, Thomas Holcroft.

Gradually, during the spring and summer of 1796, the friendship between Mary Wollstonecraft and William Godwin deepened into love. Outwardly, nothing was changed. Both partners were hard at work, Godwin preparing a new edition of *Political Justice* and Mary writing a novel, *The Wrongs of Woman*. Like *Caleb Williams*, Mary's novel was designed to illustrate the themes of the New Philosophy. They kept their relationship a secret, continued to live separately, and continued to meet their friends as before, but they had become lovers. For Godwin, this was the first real love affair of his life and he was at first very awkward, afraid of the strong emotions he was experiencing. Mary tenderly and good-humouredly guided him through his difficulties.

As winter approached, a crisis occurred: Johnson, Mary's publisher insisted that she should settle her debts and refused to give her more credit. At the same time, Mary realized that she was pregnant. She had experienced some of the harsh penalties with which English society of that time punished unwed mothers. Many of her former friends had dropped away. Her remaining friends called her Mrs Imlay, maintaining the fiction that she had been legally married; but with the new baby no such cover would be possible. Johnson offered a solution: He knew of a rich but somewhat elderly admirer who was willing to solve all of Mary's problems, both financial and social, by marrying her. Mary felt insulted and would not hear of this solution. In her books she had often denounced marriage for the sake of property as "legalized prostitution". Instead, she asked Godwin to marry her. He did this in spite of his own disapproval of the institution of marriage as practised at that time in Europe, an institution which he had called "the most odious of all monopolies".

Godwin and Mary were in fact extremely happy together. They were not at all alike: He relied on reason, while she placed more trust in her emotions. These differences meant that each revealed a new world for the other. For Godwin, Mary opened a world of strong feelings; and he acquired from her a taste for the writings of Rousseau, whom she called "the Prometheus of Sentiment". Godwin was never the same again. All his later novels and books of philosophy were to stress the importance of domestic affections and sensitivity to the force of emotion.

Mary's tragic death in childbirth

Mary's baby was due at the end of August 1797. She insisted that no doctor was needed, only a midwife. After a long labour, she gave birth to a baby girl at 11 p.m. and Godwin was overjoyed that all had gone well. However, at 2 a.m. the midwife warned Godwin that his wife was still in danger, since the afterbirth had not yet appeared. A doctor was

sent for; and following the accepted medical practice of the time, he removed the afterbirth surgically. Mary at first seemed to be recovering well; but in a few days it became clear that she was fatally ill with an infection, very likely the result of the operation to remove the afterbirth. On 10 September she died, brave and affectionate to the end. In her last words, she spoke of Godwin as “the kindest, best man in the world”.

Godwin was left heartbroken by Mary’s death. In a letter to Holcroft he wrote: “My wife is now dead. I firmly believe that there does not exist her equal in the world. I know from experience that we were formed to make each other happy. I have not the least expectation that I can now ever know happiness again”. In his sorrow, he sat rereading Mary’s books and letters, seeming to hear her voice again through the words that she had written.

Soon Godwin found consolation for his grief by editing the unpublished works of his dead wife and by writing her biography. Believing strongly in the principle of absolute honesty, he tried to describe her life and work as simply and as accurately as he could, not hiding her human weaknesses, but at the same time doing full justice to her stature as a great pioneer of woman’s rights. He included her letters to Imlay, and a description of an affair between Mary and the Swiss artist Fuseli, which had taken place before her departure for France.

On 29 January 1798, Johnson published Godwin’s *Memoirs of the Author of the Vindication of the Rights of Woman*, together with four small volumes of Mary’s posthumous works, including her unfinished novel, *The Wrongs of Woman*.

The wave of hope crashes down

Godwin’s moving and honest portrait of his wife is one of his most enduring and readable books but its honesty shocked his contemporaries more than anything else that he had written. The *European Magazine*, for example, said that it would be read “with disgust by every female who has any pretensions to delicacy; with detestation by everyone attached to the interests of religion and morality; and with indignation by any one who might feel any regard for the unhappy woman, whose frailties should have been buried in oblivion”.

This reaction against the *Memoirs* was part of a much more general reaction against all liberal ideas. In 1798, Napoleon’s armies were victorious on the continent, and the French were massing their forces for an invasion of England. Napoleon believed that the ordinary people of England would welcome him as a liberator and, in fact, the English government was facing a mutiny in its own navy, massive riots, and rebellion in Ireland. The Establishment was fighting for its life and was not in the mood to make fine distinctions about whether the blows that it struck were above or below the belt. Pitt and Grenville had already introduced the “Gagging Acts”, which effectively put an end to freedom of speech and assembly. The government now sponsored, by means of a secret subsidy, the *Anti-Jacobin Review*, a periodical which savagely attacked all of the leading liberals in turn, including both William and Mary.

Godwin had been carried to great heights by the wave of hope which accompanied the French Revolution; and as the wave crashed he was carried down with it. Despite the

abuse and ridicule which were increasingly heaped upon him, he maintained a philosophical attitude, confident that he had already made a permanent contribution to the idea of human progress. His ideas, and those of his pioneering wife Mary Wollstonecraft, can speak to our present dangerous situation.

1.7 The Marquis de Condorcet

A vision of human progress

In France the Marquis de Condorcet had written an equally optimistic book, *Esquisse d'un Tableau Historique des Progrès de l'Esprit Humain*. Condorcet's optimism was unaffected even by the fact that at the time when he was writing he was in hiding, under sentence of death by Robespierre's government. Like Godwin's *Political Justice*, this book offers an optimistic vision of how human society can be improved. Together, the two books provoked Malthus to write his book on population.

Condorcet becomes a mathematician

Marie-Jean-Antoine-Nicolas Caritat, Marquis de Condorcet, was born in 1743 in the town of Ribemont in southern France. He was born into an ancient and noble family of the principality of Orange but there was nothing in his background to suggest that he might one day become a famous scientist and social philosopher. In fact, for several generations before, most of the men in the family had followed military or ecclesiastical careers and none were scholars.

After an initial education received at home from his mother, Condorcet was sent to his uncle, the Bishop of Lisieux, who provided a Jesuit tutor for the boy. In 1758 Condorcet continued his studies with the Jesuits at the College of Navarre. After he graduated from the College, Condorcet's powerful and independent intelligence suddenly asserted itself. He announced that he intended to study mathematics. His family was unanimously and violently opposed to this idea. The privileges of the nobility were based on hereditary power and on a static society. Science, with its emphasis on individual talent and on progress, undermined both these principles. The opposition of Condorcet's family is therefore understandable but he persisted until they gave in.

From 1765 to 1774, Condorcet focused on science. In 1765, he published his first work on mathematics entitled *Essai sur le calcul intégral*, which was well received, launching his career as a mathematician. He would go on to publish many more papers, and in 1769, at the age of 26, he was elected to the Academie royale des Sciences (French Royal Academy of Sciences)

Condorcet worked with Leonhard Euler and Benjamin Franklin. He soon became an honorary member of many foreign academies and philosophic societies including the Royal

Swedish Academy of Sciences (1785), Foreign Honorary Member of the American Academy of Arts and Sciences (1792), and also in Prussia and Russia.

Human rights and scientific sociology

In 1774, at the age of 31, Condorcet was appointed Inspector-General of the Paris Mint by his friend, the economist Turgot. From this point on, Condorcet shifted his focus from the purely mathematical to philosophy and political matters. In the following years, he took up the defense of human rights in general, and of women's and blacks' rights in particular (an abolitionist, he became active in the Society of the Friends of the Blacks in the 1780s). He supported the ideals embodied by the newly formed United States, and proposed projects of political, administrative and economic reforms intended to transform France.

The year 1785 saw the publication of Condorcet's highly original mathematical work, *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix*, in which he pioneered the application of the theory of probability in the social sciences. A later, much enlarged, edition of this book extended the applications to games of chance. Through these highly original works, Condorcet became a pioneer of scientific sociology.

In 1786, Condorcet married one of the most beautiful women of the time, Sophie de Grouchy (1764-1822). Condorcet's position as Inspector-General of the Mint meant that they lived at the Hotel des Monnaies. Mme Condorcet's salon there was famous.

The French Revolution

Ever since the age of 17, Condorcet had thought about questions of justice and virtue and especially about how it is in our own interest to be both just and virtuous. Very early in his life he had been occupied with the idea of human perfectibility. He was convinced that the primary duty of every person is to contribute as much as possible to the development of mankind, and that by making such a contribution, one can also achieve the greatest possible personal happiness. When the French Revolution broke out in 1789 he saw it as an unprecedented opportunity to do his part in the cause of progress and he entered the arena wholeheartedly.

Condorcet was first elected as a member of the Municipality of Paris; and then, in 1791, he became one of the six Commissioners of the Treasury. Soon afterwards he was elected to the Legislative Assembly, of which he became first the Secretary and finally the President. In 1792, Condorcet proposed to the Assembly that all patents of nobility should be burned. The motion was carried unanimously; and on 19 June his own documents were thrown on a fire with the others at the foot of a statue of Louis XIV.

Condorcet was one of the chief authors of the proclamation which declared France to be a republic and which summoned a National Convention. As he remained above the personal political quarrels that were raging at the time, Condorcet was elected to the National Convention by five different constituencies. When the Convention brought Louis XVI to trial, Condorcet maintained that, according to the constitution, the monarch was



Figure 1.11: The Marquis de Condorcet (public domain).

inviolable and that the Convention therefore had no legal right to try the King. When the King was tried despite these protests, Condorcet voted in favor of an appeal to the people.

Drafting a new constitution for France

In October 1792, when the Convention set up a Committee of Nine to draft a new constitution for France, Condorcet sat on this committee as did the Englishman, Thomas Paine. Under sentence of death in England for publishing his pamphlet *The Rights of Man*, Paine had fled to France and had become a French citizen. He and Condorcet were the chief authors of a moderate (Gerondist) draft of the constitution. However, the Jacobin leader, Robespierre, bitterly resented being excluded from the Committee of Nine and, when the Convention then gave the responsibility for drafting the new constitution to the Committee for Public Safety, which was enlarged for this purpose by five additional members. The result was a hastily produced document with many glaring defects. When it was presented to the Convention, however, it was accepted almost without discussion. This was too much for Condorcet to stomach and he published anonymously a letter entitled *Advice to the French on the New Constitution*, in which he exposed the defects of the Jacobin constitution and urged all Frenchmen to reject it.

Hiding from Robespierre's Terror

Condorcet's authorship of this letter was discovered and treated as an act of treason. On 8 July 1793, Condorcet was denounced in the Convention; and an order was sent out for his arrest. The officers tried to find him, first at his town house and then at his house in the country but, warned by a friend, Condorcet had gone into hiding.

The house where Condorcet took refuge was at Rue Servandoni, a small street in Paris leading down to the Luxembourg Gardens, and it was owned by Madame Vernet, the widow of a sculptor. Madame Vernet, who sometimes kept lodgings for students, had been asked by Condorcet's friends whether she would be willing to shelter a proscribed man. 'Is he a good man?', she had asked; and when assured that this was the case, she had said, 'Then let him come at once. You can tell me his name later. Don't waste even a moment. While we are speaking, he may be arrested.' She did not hesitate, although she knew that she risked death, the penalty imposed by the Convention for sheltering a proscribed man.

Condorcet writes the *Esquisse*

Although Robespierre's agents had been unable to arrest him, Condorcet was sentenced to the guillotine *in absentia*. He knew that in all probability he had only a few weeks or months to live and he began to write his last thoughts, racing against time. Hidden in the house at Rue Servandoni, and cared for by Madame Vernet, Condorcet returned to a project which he had begun in 1772, a history of the progress of human thought, stretching from the remote past to the distant future. Guessing that he would not have

time to complete the full-scale work he had once planned, he began a sketch or outline: *Esquisse d'un Tableau Historique des progrès de l'Esprit Humain*.

Condorcet's *Esquisse*, is an enthusiastic endorsement of the idea of infinite human perfectibility which was current among the philosophers of the 18th century, and in this book, Condorcet anticipated many of the evolutionary ideas of Charles Darwin. He compared humans with animals, and found many common traits. Condorcet believed that animals are able to think, and even to think rationally, although their thoughts are extremely simple compared with those of humans. He also asserted that humans historically began their existence on the same level as animals and gradually developed to their present state.

Since this evolution took place historically, he reasoned, it is probable, or even inevitable, that a similar evolution in the future will bring mankind to a level of physical, mental and moral development which will be as superior to our own present state as we are now superior to animals.

In his *Esquisse*, Condorcet called attention to the unusually long period of dependency which characterize the growth and education of human offspring. This prolonged childhood is unique among living beings. It is needed for the high level of mental development of the human species; but it requires a stable family structure to protect the young during their long upbringing. Thus, according to Condorcet, biological evolution brought into existence a moral precept, the sanctity of the family.

Similarly, Condorcet maintained, larger associations of humans would have been impossible without some degree of altruism and sensitivity to the suffering of others incorporated into human behavior, either as instincts or as moral precepts or both; and thus the evolution of organized society entailed the development of sensibility and morality.

Condorcet believed that ignorance and error are responsible for vice; and he listed what he regarded as the main mistakes of civilization: hereditary transmission of power, inequality between men and women, religious bigotry, disease, war, slavery, economic inequality, and the division of humanity into mutually exclusive linguistic groups.

Condorcet believed the hereditary transmission of power to be the source of much of the tyranny under which humans suffer; and he looked forward to an era when republican governments would be established throughout the world. Turning to the inequality between men and women, Condorcet wrote that he could see no moral, physical or intellectual basis for it. He called for complete social, legal, and educational equality between the sexes.

Condorcet predicted that the progress of medical science would free humans from the worst ravages of disease. Furthermore, he maintained that since perfectibility (i.e. evolution) operates throughout the biological world, there is no reason why mankind's physical structure might not gradually improve, with the result that human life in the remote future could be greatly prolonged. Condorcet believed that the intellectual and moral facilities of man are capable of continuous and steady improvement; and he thought that one of the most important results of this improvement will be the abolition of war.

At the end of his *Esquisse*, Condorcet said that any person who has contributed to the progress of mankind to the best of his ability becomes immune to personal disaster and suffering. He knows that human progress is inevitable and can take comfort and courage from his inner picture of the epic march of mankind, through history, towards a better

future.

Shortly after Condorcet completed the *Esquisse*, he received a mysterious warning that soldiers of the Convention were on their way to inspect Madame Vernet's house. Wishing to spare his generous hostess from danger, he disguised himself as well as he could and slipped past the portress. However, Condorcet had only gone a few steps outside the house when he was recognized by Madame Verdet's cousin, who risked his life to guide Condorcet past the sentinels at the gates of Paris, and into the open country beyond.

Condorcet wandered for several days without food or shelter, hiding himself in quarries and thickets. Finally, on 27 March 1794, hunger forced him to enter a tavern at the village of Clamart, where he ordered an omelette. When asked how many eggs it should contain, the exhausted and starving philosopher replied without thinking, 'twelve'. This reply, together with his appearance, excited suspicion. He was asked for his papers and, when it was found that he had none, soldiers were sent for and he was arrested. He was taken to a prison at Bourg-la-Reine, but he was so weak that he was unable to walk there, and had to be carried in a cart. The next morning, Condorcet was found dead on the floor of his cell. The cause of his death is not known with certainty. It was listed in official documents as congestion sanguine, congestion of the blood but the real cause may have been cold, hunger, exhaustion or poison. Many historians believe that Condorcet was murdered by Robespierre's agents, since he was so popular that a public execution would have been impossible.

After Condorcet's death the currents of revolutionary politics shifted direction. Robespierre, the leader of the Terror, was himself soon arrested. The execution of Robespierre took place on 25 July 1794, only a few months after the death of Condorcet.

Condorcet's *Esquisse d'un Tableau Historique des Progrès de l'Esprit Humain* was published posthumously in 1795. In the post-Thermidor reconstruction, the Convention voted funds to have it printed in a large edition and distributed throughout France, thus adopting the *Esquisse* as its official manifesto. Condorcet's name will always be linked with this small prophetic book. It was destined to establish the form in which the eighteenth-century idea of progress was incorporated into Western thought, and (as we shall see) it provoked Robert Malthus to write *An Essay on the Principle of Population*.

1.8 Thomas Robert Malthus

A debate between father and son

T.R. Malthus' *Essay on The Principle of Population*, the first edition of which was published in 1798, was one of the the first systematic studies of the problem of population in relation to resources. Earlier discussions of the problem had been published by Boterrio in Italy, Robert Wallace in England, and Benjamin Franklin in America. However Malthus' *Essay* was the first to stress the fact that, in general, powerful checks operate continuously to keep human populations from increasing beyond their available food supply. In a later



Figure 1.12: Thomas Robert Malthus.

edition, published in 1803, he buttressed this assertion with carefully collected demographic and sociological data from many societies at various periods of their histories.

The publication of Malthus' *Essay* coincided with a wave of disillusionment which followed the optimism of the Enlightenment. The utopian societies predicted by the philosophers of the Enlightenment were compared with reign of terror in Robespierre's France and with the miseries of industrial workers in England; and the discrepancy required an explanation.

The optimism which preceded the French Revolution, and the disappointment which followed a few years later, closely paralleled the optimistic expectations of our own century, in the period after the Second World War, when it was thought that the transfer of technology to the less developed parts of the world would eliminate poverty, and the subsequent disappointment when poverty persisted.

Science and technology developed rapidly in the second half of the twentieth century, but the benefits which they conferred were just as rapidly consumed by a global population which today is increasing at the rate of one billion people every fourteen years. Because of the close parallel between the optimism and disappointments of Malthus' time and those of our own, much light can be thrown on our present situation by rereading the debate between Malthus and his contemporaries.

Thomas Robert Malthus (1766-1834) came from an intellectual family: His father, Daniel Malthus, was a moderately well-to-do English country gentleman, an enthusiastic believer in the optimistic ideas of the Enlightenment, and a friend of the philosophers Henry Rousseau, David Hume and William Godwin. The famous book on population by the younger Malthus grew out of conversations with his father.

In 1793, Robert Malthus was elected a fellow of Jesus College, and he also took orders in the Anglican Church. He was assigned as Curate to Okewood Chapel in Surrey. This small chapel stood in a woodland region, and Malthus' illiterate parishioners were so poor that the women and children went without shoes. They lived in low thatched huts made of woven branches plastered with mud. The floors of these huts were of dirt, and the only light came from tiny window openings. Malthus' parishioners diet consisted almost entirely of bread. The children of these cottagers developed late, and were stunted in growth. Nevertheless, in spite of the harsh conditions of his parishioners' lives, Malthus noticed that the number of births which he recorded in the parish register greatly exceeded the number of deaths. It was probably this fact which first turned his attention to the problem of population.

Robert Malthus lived with his parents at Albury, about nine miles from Oakwood, and it was here that the famous debates between father and son took place. As Daniel Malthus talked warmly about Godwin, Condorcet, and the idea of human progress, the mind of his son, Robert, turned to the unbalance between births and deaths which he had noticed among his parishioners at Okewood Chapel. He pointed out to his father that no matter what benefits science might be able to confer, they would soon be eaten up by population growth.

Regardless of technical progress, the condition of the lowest social class would remain exactly the same: The poor would continue to live, as they always had, on the exact

borderline between survival and famine, clinging desperately to the lower edge of existence. For them, change for the worse was impossible since it would loosen their precarious hold on life; their children would die and their numbers would diminish until they balanced the supply of food. But any change for the better was equally impossible, because if more nourishment should become available, more of the children of the poor would survive, and the share of food for each of them would again be reduced to the precise minimum required for life.

Observation of his parishioners at Okewood had convinced Robert Malthus that this sombre picture was a realistic description of the condition of the poor in England at the end of the 18th century. Techniques of agriculture and industry were indeed improving rapidly; but among the very poor, population was increasing equally fast, and the misery of society's lowest class remained unaltered.

Publication of the first essay in 1798

Daniel Malthus was so impressed with his son's arguments that he urged him to develop them into a small book. Robert Malthus' first essay on population, written in response to his father's urging, was only 50,000 words in length. It was published anonymously in 1798, and its full title was *An Essay on the Principle of Population, as it affects the future improvement of society, with remarks on the speculations of Mr. Godwin, M. Condorcet, and other writers*. Robert Malthus' *Essay* explored the consequences of his basic thesis: that "the power of population is indefinitely greater than the power in the earth to produce subsistence for man".

"That population cannot increase without the means of subsistence", Robert Malthus wrote, "is a proposition so evident that it needs no illustration. That population does invariably increase, where there are means of subsistence, the history of every people who have ever existed will abundantly prove. And that the superior power cannot be checked without producing misery and vice, the ample portion of these two bitter ingredients in the cup of human life, and the continuance of the physical causes that seem to have produced them, bear too convincing a testimony."

In order to illustrate the power of human populations to grow quickly to enormous numbers if left completely unchecked, Malthus turned to statistics from the United States, where the population had doubled every 25 years for a century and a half. Malthus called this type of growth "geometrical" (today we would call it "exponential"); and, drawing on his mathematical education, he illustrated it by the progression 1,2,4,8,16,32,64,128,256,...etc. In order to show that, in the long run, no improvement in agriculture could possibly keep pace with unchecked population growth, Malthus allowed that, in England, agricultural output might with great effort be doubled during the next quarter century; but during a subsequent 25-year period it could not again be doubled. The growth of agricultural output could at the very most follow an arithmetic (linear) progression, 1,2,3,4,5,6,...etc.

Because of the overpoweringly greater numbers which can potentially be generated by exponential population growth, as contrasted to the slow linear progression of sustenance, Malthus was convinced that at almost all stages of human history, population has not

expanded freely, but has instead pressed painfully against the limits of its food supply. He maintained that human numbers are normally held in check either by “vice or misery”. (Malthus classified both war and birth control as forms of vice.) Occasionally the food supply increases through some improvement in agriculture, or through the opening of new lands; but population then grows very rapidly, and soon a new equilibrium is established, with misery and vice once more holding the population in check.

Like Godwin’s *Political Justice*, Malthus’ *Essay on the Principle of Population* was published at exactly the right moment to capture the prevailing mood of England. In 1793, the mood had been optimistic; but by 1798, hopes for reform had been replaced by reaction and pessimism. Public opinion had been changed by Robespierre’s Reign of Terror and by the threat of a French invasion. Malthus’ clear and powerfully written essay caught the attention of readers not only because it appeared at the right moment, but also because his two contrasting mathematical laws of growth were so striking.

One of Malthus’ readers was William Godwin, who recognized the essay as the strongest challenge to his utopian ideas that had yet been published. Godwin several times invited Malthus to breakfast at his home to discuss social and economic problems. (After some years, however, the friendship between Godwin and Malthus cooled, the debate between them having become more acrimonious.)

In 1801, Godwin published a reply to his critics, among them his former friends James Mackintosh and Samuel Parr, by whom he recently had been attacked. His *Reply to Parr* also contained a reply to Malthus: Godwin granted that the problem of overpopulation raised by Malthus was an extremely serious one. However, Godwin wrote, all that is needed to solve the problem is a change of the attitudes of society. For example we need to abandon the belief “that it is the first duty of princes to watch for (i.e. encourage) the multiplication of their subjects, and that a man or woman who passes the term of life in a condition of celibacy is to be considered as having failed to discharge the principal obligations owed to the community”.

“On the contrary”, Godwin continued, “it now appears to be rather the man who rears a numerous family that has to some degree transgressed the consideration he owes to the public welfare”. Godwin suggested that each marriage should be allowed only two or three children or whatever number might be needed to balance the current rates of mortality and celibacy. This duty to society, Godwin wrote, would surely not be too great a hardship to be endured, once the reasons for it were thoroughly understood.

The second essay, published in 1803

Malthus’ small essay had captured public attention in England, and he was anxious to expand it with empirical data which would show his principle of population to be valid not only in England in his own day, but in all societies and all periods. He therefore traveled widely, collecting data. He also made use of the books of explorers, such as Cook and Vancouver.

Malthus’ second edition, more than three times the length of his original essay on population, was ready in 1803. Book I and Book II of the 1803 edition of Malthus’ *Essay*

are devoted to a study of the checks to population growth which have operated throughout history in all the countries of the world for which he possessed facts.

In his first chapter, Malthus stressed the potentially enormous power of population growth contrasted the slow growth of the food supply. He concluded that strong checks to the increase of population must almost always be operating to keep human numbers within the bounds of sustenance. He classified the checks as either preventive or positive, the preventive checks being those which reduce fertility, while the positive checks are those which increase mortality. Among the positive checks, Malthus listed “unwholesome occupations, severe labour and exposure to the seasons, extreme poverty, bad nursing of children, great towns, excesses of all kinds, the whole train of common diseases and epidemics, wars, plague, and famine”.

In the following chapters of Books I, Malthus showed in detail the mechanisms by which population is held at the level of sustenance in various cultures. He first discussed primitive hunter-gatherer societies, such as the inhabitants of Tierra del Fuego, Van Diemens Land and New Holland, and those tribes of North American Indians living predominantly by hunting. In hunting societies, he pointed out, the population is inevitably very sparse: “The great extent of territory required for the support of the hunter has been repeatedly stated and acknowledged”, Malthus wrote, “...The tribes of hunters, like beasts of prey, whom they resemble in their mode of subsistence, will consequently be thinly scattered over the surface of the earth. Like beasts of prey, they must either drive away or fly from every rival, and be engaged in perpetual contests with each other...The neighboring nations live in a perpetual state of hostility with each other. The very act of increasing in one tribe must be an act of aggression against its neighbors, as a larger range of territory will be necessary to support its increased numbers. The contest will in this case continue, either till the equilibrium is restored by mutual losses, or till the weaker party is exterminated or driven from its country... Their object in battle is not conquest but destruction. The life of the victor depends on the death of the enemy”. Malthus concluded that among the American Indians of his time, war was the predominant check to population growth, although famine, disease and infanticide each played a part.

In Book II, Malthus turned to the nations of Europe, as they appeared at the end of the 18th century, and here he presents us with a different picture. Although in these societies poverty, unsanitary housing, child labour, malnutrition and disease all took a heavy toll, war produced far less mortality than in hunting and pastoral societies, and the preventive checks, which lower fertility, played a much larger roll.

Malthus painted a very dark panorama of population pressure and its consequences in human societies throughout the world and throughout history: At the lowest stage of cultural development are the hunter-gatherer societies, where the density of population is extremely low. Nevertheless, the area required to support the hunters is so enormous that even their sparse and thinly scattered numbers press hard against the limits of sustenance. The resulting competition for territory produces merciless intertribal wars.

The domestication of animals makes higher population densities possible; and wherever this new mode of food production is adopted, human numbers rapidly increase; but very soon a new equilibrium is established, with the population of pastoral societies once more

pressing painfully against the limits of the food supply, growing a little in good years, and being cut back in bad years by famine, disease and war.

Finally, agricultural societies can maintain extremely high densities of population; but the time required to achieve a new equilibrium is very short. After a brief period of unrestricted growth, human numbers are once more crushed against the barrier of limited resources; and if excess lives are produced by overbreeding, they are soon extinguished by deaths among the children of the poor.

Malthus was conscious that he had drawn an extremely dark picture of the human condition. He excused himself by saying that he has not done it gratuitously, but because he was convinced that the dark shades really are there, and that they form an important part of the picture. He did allow one ray of light, however: By 1803, his own studies of Norway, together with personal conversations with Godwin and the arguments in Godwin's *Reply to Parr*, had convinced Malthus that "moral restraint" should be included among the possible checks to population growth. Thus he concluded Book II of his 1803 edition by saying that the checks which keep population down to the level of the means of subsistence can all be classified under the headings of "moral restraint, vice and misery". (In his first edition he had maintained that vice and misery are the only possibilities).

Replies to Malthus

The second edition of Malthus' *Essay* was published in 1803. It provoked a storm of controversy, and a flood of rebuttals. In 1803 England's political situation was sensitive. Revolutions had recently occurred both in America and in France; and in England there was much agitation for radical change, against which Malthus provided counter-arguments. Pitt and his government had taken Malthus' first edition seriously, and had abandoned their plans for extending the Poor Laws. Also, as a consequence of Malthus' ideas, England's first census was taken in 1801. This census, and subsequent ones, taken in 1811, 1821 and 1831, showed that England's population was indeed increasing rapidly, just as Malthus had feared. (The population of England and Wales more than doubled in 80 years, from an estimated 6.6 million in 1750 to almost 14 million in 1831.) In 1803, the issues of poverty and population were at the center of the political arena, and articles refuting Malthus began to stream from the pens of England's authors.

William Coleridge planned to write an article against Malthus, and he made extensive notes in the margins of his copy of the *Essay*. In one place he wrote: "Are Lust and Hunger both alike Passions of physical Necessity, and the one equally with the other independent of the Reason and the Will? Shame upon our race that there lives an individual who dares to ask the Question." In another place Coleridge wrote: "Vice and Virtue subsist in the agreement of the habits of a man with his Reason and Conscience, and these can have but one moral guide, Utility, or the virtue and Happiness of Rational Beings". Although Coleridge never wrote his planned article, his close friend Robert Southey did so, using Coleridge's notes almost verbatim. Some years later Coleridge remarked: "Is it not lamentable - is it not even marvelous - that the monstrous practical sophism of Malthus should now have gained complete possession of the leading men of the kingdom! Such an

essential lie in morals - such a practical lie in fact it is too! I solemnly declare that I do not believe that all the heresies and sects and factions which ignorance and the weakness and wickedness of man have ever given birth to, were altogether so disgraceful to man as a Christian, a philosopher, a statesman or citizen, as this abominable tenet."

In 1812, Percy Bysshe Shelley, who was later to become William Godwin's son-in-law, wrote: "Many well-meaning persons... would tell me not to make people happy for fear of over-stocking the world... War, vice and misery are undoubtedly bad; they embrace all that we can conceive of temporal and eternal evil. Are we to be told that these are remediless, because the earth would in case of their remedy, be overstocked?" A year later, Shelley called Malthus a "priest, eunuch, and tyrant", and accused him, in a pamphlet, of proposing that "... after the poor have been stript naked by the tax-gatherer and reduced to bread and tea and fourteen hours of hard labour by their masters.. the last tie by which Nature holds them to benignant earth (whose plenty is garnered up in the strongholds of their tyrants) is to be divided... They are required to abstain from marrying under penalty of starvation... whilst the rich are permitted to add as many mouths to consume the products of the poor as they please"

Godwin himself wrote a long book (which was published in 1820) entitled *Of Population, An Enquiry Concerning the Power and Increase in the Number of Mankind, being an answer to Mr. Malthus*. One can also view many of the books of Charles Dickens as protests against Malthus' point of view. For example, *Oliver Twist* gives us a picture of a workhouse "administered in such a way that the position of least well-off independent workers should not be worse than the position of those supported by parish assistance."

Among the 19th century authors defending Malthus was Harriet Martineau, who wrote: "The desire of his heart and the aim of his work were that domestic virtue and happiness should be placed within the reach of all... He found that a portion of the people were underfed, and that one consequence of this was a fearful mortality among infants; and another consequence the growth of a recklessness among the destitute which caused infanticide, corruption of morals, and at best, marriage between pauper boys and girls; while multitudes of respectable men and women, who paid rates instead of consuming them, were unmarried at forty or never married at all. Prudence as to time of marriage and for making due provision for it was, one would think, a harmless recommendation enough, under the circumstances."

The Irish Potato Famine of 1845

Meanwhile, in Ireland, a dramatic series of events had occurred, confirming the ideas of Malthus. Anti-Catholic laws prevented the Irish cottagers from improving their social position; and instead they produced large families, fed almost exclusively on a diet of milk and potatoes. The potato and milk diet allowed a higher density of population to be supported in Ireland than would have been the case if the Irish diet had consisted primarily of wheat. As a result, the population of Ireland grew rapidly: In 1695 it had been approximately one million, but by 1821 it had reached 6,801,827. By 1845, the population of Ireland was more than eight million; and in that year the potato harvest

failed because of blight. All who were able to do so fled from the country, many emigrating to the United States; but two million people died of starvation. As the result of this shock, Irish marriage habits changed, and late marriage became the norm, just as Malthus would have wished. After the Potato Famine of 1845, Ireland maintained a stable population of roughly four million.

Malthus continued a life of quiet scholarship, unperturbed by the heated public debate which he had caused. At the age of 38, he married a second cousin. The marriage produced only three children, which at that time was considered to be a very small number. Thus he practiced the pattern of late marriage which he advocated. Although he was appointed rector of a church in Lincolnshire, he never preached there, hiring a curate to do this in his place. Instead of preaching, Malthus accepted an appointment as Professor of History and Political Economy at the East India Company's College at Haileybury. This appointment made him the first professor of economics in England, and probably also the first in the world. Among the important books which he wrote while he held this post was *Principles of Political Economy, Considered with a View to their Practical Application*. Malthus also published numerous revised and expanded editions of his *Essay on the Principle of Population*. The third edition was published in 1806, the fourth in 1807, the fifth in 1817, and the sixth in 1826.

In the societies that Malthus describes, we can see a clear link not only between population pressure and poverty, but also between population pressure and war. Undoubtedly this is why the suffering produced by poverty and war saturates so much of human history. Stabilization of population through birth control offers a key to eliminating this suffering.

Population stabilization and sustainability

Does the contrast between the regions of our contemporary world mean that Malthus has been "proved wrong" in some regions and "proved right" in others? To answer this question, let us re-examine the basic assertion which Malthus puts forward in Books I and II of the 1803 version of his *Essay*. His basic thesis is that the maximum natural fertility of human populations is greatly in excess of replacement fertility. This being so, Malthus points out, human populations would always increase exponentially if they were not prevented from doing so by powerful and obvious checks.

In general, Malthus tells us, populations cannot increase exponentially because the food supply increases slowly, or is constant. Therefore, he concludes, in most societies and almost all periods of history, checks to population growth are operating. These checks may be positive, or they may be preventive, the positive checks being those which raise the death rate, while the preventive checks lower the birth rate. There are, however, Malthus says, exceptional periods of history when the populations of certain societies do actually increase exponentially because of the opening of new lands or because of the introduction of new methods of food production. As an example, he cites the growth of the population of the United States, which doubled every 25 years over a period of 150 years.

We can see, from this review of Malthus' basic thesis, that his demographic model is flexible enough to describe all of the regions of our contemporary world: If Malthus were

living today, he would say that in countries with low birth and death rates and stable populations, the checks to population growth are primarily preventive, while in countries with high death rates, the positive checks are important. Finally, Malthus would describe our rapidly-growing global population as the natural result of the introduction of improved methods of food production in the developing countries. We should notice, however, that the flexibility of Malthus' demographic model first appears in the 1803 version of his *Essay*. In the 1798 version, he maintained “..that population does invariably increase, where there are means of subsistence..” and “that the superior power (of population) cannot be checked without producing misery and vice..” This narrower model of population did not agree with Malthus' own observations in Norway in 1799, and therefore in his 1803 *Essay* he allowed more scope for preventive checks, which included late marriage and moral restraint as well as birth control (which he classified under the heading of “vice”).

Today we are able to estimate the population of the world at various periods in history, and we can also make estimates of global population in prehistoric times. Looking at the data, we can see that the global population of humans has not followed an exponential curve as a function of time, but has instead followed a hyperbolic trajectory. At the time of Christ, the population of the world is believed to have been approximately 220 million. By 1500, the earth contained 450 million people, and by 1750, the global population exceeded 700 million. As the industrial and scientific revolution has accelerated, global population has responded by increasing at a break-neck speed: In 1930, the population of the world reached two billion; in 1958 three billion; in 1974 four billion; in 1988 five billion, and in 1999, six billion.

Today, roughly a billion people are being added to the world's population every decade. But our food supply cannot keep increasing at this rate. On the contrary, the amount of food available to us is threatened by water shortages, climate change and the end of petroleum-supported high-yield agriculture. Thus, facing the threat of an extremely large-scale global famine, we need to listen to the warning voice of Malthus.

1.9 The abolition of serfdom and slavery

The ideals of the Enlightenment led to movements for the abolition of both serfdom and slavery. John Locke had expressed these ideals in the famous words: “Men living together according to reason, without a common superior on earth with authority to judge between them, is properly the state of nature... A state also of equality, wherein all the power and jurisdiction is reciprocal, no one having more than another; there being nothing more evident than that creatures of the same species, promiscuously born to all the same advantages of nature and the use of the same facilities, should also be equal amongst one another without subordination or subjection...”

The same ideals are echoed in the American Declaration of Independence: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain inalienable rights, and that among these are the rights to life, liberty and the pursuit of happiness, that to secure these rights Governments are instituted

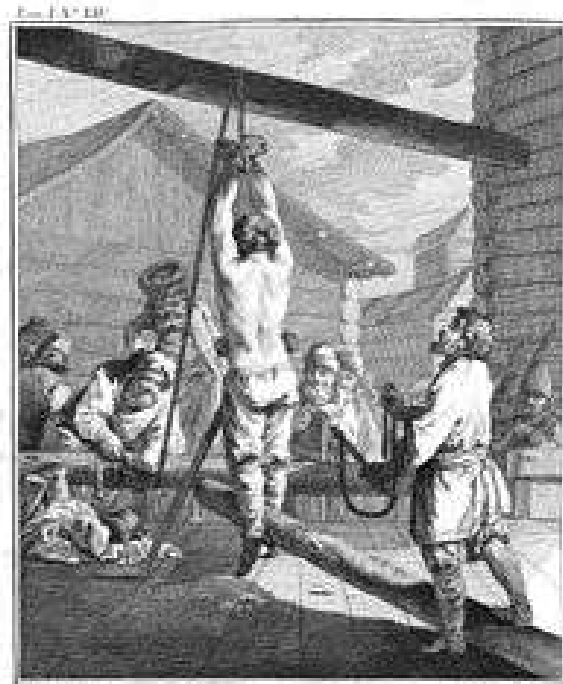


Figure 1.13: Reeve and serfs in feudal England, c. 1310.

among men, deriving their just powers from the consent of the governed.”

The political philosophers of the Enlightenment could see no rational argument for “the divine right of kings”, nor for serfdom, nor for slavery. The ideal of human equality, liberty and brotherhood led to revolutions in America, France and Russia, and to movements in many countries for the abolition of serfdom and slavery. Despite the successes of these revolutions and movements, both slavery and extreme inequality still exists. Today, child labor accounts for 22% of the workforce in Asia, 32% in Africa, and 17% in Latin America. Large-scale slavery also exists today, although there are formal laws against it in every country. There are more slaves now than ever before - their number is estimated to be between 12 million and 27 million. Besides outright slaves, who are bought and sold for as little as 100 dollars, there many millions of workers whose lack of options and dreadful working conditions must be described as slavlike.

Extreme financial inequality also exists today, both between countries and within countries; and as the result of the control of wealth over politics, many nations that claim to be democracies, are in fact oligarchies.



PUNISHMENT BY BRAND-KNOT.

Figure 1.14: Punishment with a knout. Whipping was a common punishment for Russian serfs.

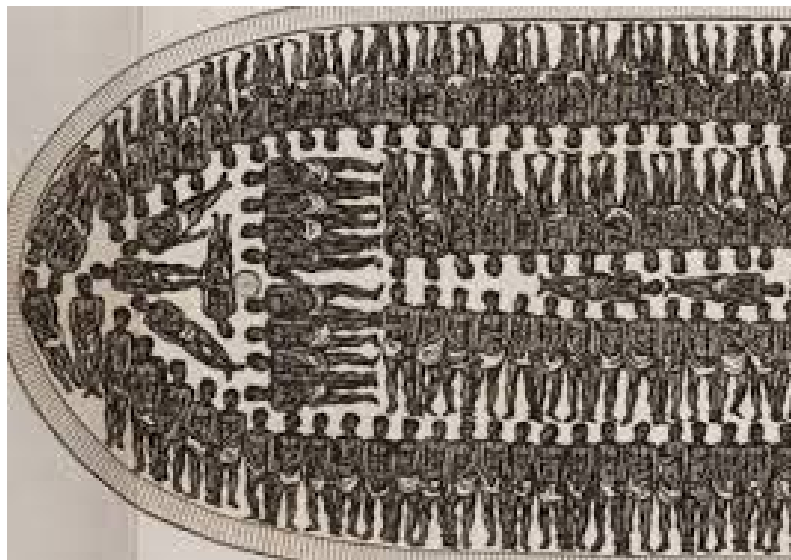


Figure 1.15: Diagram of a slave ship.



Figure 1.16: “Am I not a man and a brother?”, a medallion designed by Charles Darwin’s uncle, Josiah Wedgewood, for the British anti-slavery campaign.



Figure 1.17: The Chevalier de Saint-Georges. sometimes called the “Black Mozart”.



Figure 1.18: **William Wilberforce (1759-1833)**, a leader of the **British movement to abolish the slave trade**.

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Chapter 2

RACISM, COLONIALISM AND EXCEPTIONALISM

2.1 The Industrial Revolution and colonialism

As Europe became industrialized, European armaments allowed colonial expansion, until ultimately as much as 85% of the world's land surface fell under the colonial domination of the industrialized nations. Colonialism can be thought of as an early example military-industrial complexes. At this early stage of industrialism, we can already see wars conducted for the sake of resources. We can already see a circular flow of money from the profits of arms manufacturers to politicians and their newspaper supporters, and back to the arms manufacturers. We can already see the Devil's Dynamo at work.

2.2 Genocides in the Americas

Instances of genocide stain much of human history. Readers of Charles Darwin's book describing "The Voyage of the Beagle" will remember his horrifying account of General Rosas' genocidal war against the Amerind population of Argentina. Similar genocidal violence has been experienced by indigenous peoples throughout South and Central America, and indeed throughout the world.

In general, the cultures of indigenous peoples require much land, and greed for this land is the motive for violence against them. However, the genetic and cultural heritage of indigenous peoples can potentially be of enormous value to humanity, and great efforts should be made to protect them.

In North America, we can recall that military commanders, such as Lord Jeffrey Amherst, deliberately inoculated the Indians with smallpox by giving them blankets from smallpox hospitals. Amherst wrote to his associate, Colonel Henry Bouquet "You will do well to try to inoculate the Indians, by means of blankets, as well as to try every other method that can serve to extirpate this execrable race." This is clearly an instance of genocide, as well as being an example of the use of biological weapons.



Figure 2.1: The atrocities they committed by the “conquistadors” over the course of three centuries are far too many to be listed here, but there are some that stand out. In the Caribbean, most of the native populations were completely wiped out due to Spanish rapine and diseases. In Mexico, Hernan Cortes and Pedro de Alvarado ordered the Cholula Massacre and the Temple Massacre respectively, killing thousands of unarmed men, women and children. In Peru, Francisco Pizarro captured Emperor Atahualpa in the midst of an unprovoked bloodbath at Cajamarca. Wherever the conquistadors went, death and misery for the natives followed.

The website of the Holocaust Museum Houston states that “Civil war existed in Guatemala since the early 1960s due to inequalities existing in the economic and political life. In the 1970s, the Maya began participating in protests against the repressive government, demanding greater equality and inclusion of the Mayan language and culture. In 1980, the Guatemalan army instituted “Operation Sophia,” which aimed at ending insurgent guerilla warfare by destroying the civilian base in which they hid. This program specifically targeted the Mayan population, who were believed to be supporting the guerilla movement. Over the next three years, the army destroyed 626 villages, killed or ‘disappeared’ more than 200,000 people and displaced an additional 1.5 million, while more than 150,000 were driven to seek refuge in Mexico. Forced disappearance policies included secretly arresting or abducting people, who were often killed and buried in unmarked graves.”

2.3 Modern weapons and colonialism

In the 18th and 19th centuries, the continually accelerating development of science and science-based industry began to affect the whole world. As the factories of Europe poured

out cheap manufactured goods, a change took place in the patterns of world trade: Before the Industrial Revolution, trade routes to Asia had brought Asian spices, textiles and luxury goods to Europe. For example, cotton cloth and fine textiles, woven in India, were imported to England. With the invention of spinning and weaving machines, the trade was reversed. Cheap cotton cloth, manufactured in England, began to be sold in India, and the Indian textile industry withered, just as the hand-loom industry in England itself had done a century before.

The rapid development of technology in the west also opened an enormous gap in military strength between the industrialized nations and the rest of the world. Taking advantage of their superior weaponry, the advanced industrial nations rapidly carved the remainder of the world into colonies, which acted as sources of raw materials and food, and as markets for manufactured goods.

Throughout the American continent, the native Indian population had proved vulnerable to European diseases, such as smallpox, and large numbers of them had died. The remaining Indians were driven westward by streams of immigrants arriving from Europe.

Often the industrialized nations made their will felt by means of naval bombardments: In 1854, Commodore Perry forced Japan to accept foreign traders by threatening to bombard Tokyo. In 1856, British warships bombarded Canton in China to punish acts of violence against Europeans living in the city. In 1864, a force of European and American warships bombarded Choshu in Japan, causing a revolution. In 1882, Alexandria was bombarded, and in 1896, Zanzibar.

Much that was beautiful and valuable was lost, as mature traditional cultures collapsed, overcome by the power and temptations of modern industrial civilization. For the Europeans and Americans of the late 19th century and early 20th century, progress was a religion, and imperialism was its crusade.

Between 1800 and 1875, the percentage of the earth's surface under European rule increased from 35 percent to 67 percent. In the period between 1875 and 1914, there was a new wave of colonial expansion, and the fraction of the earth's surface under the domination of colonial powers (Europe, the United States and Japan) increased to 85 percent, if former colonies are included. The unequal (and unfair) contest between the industrialized countries, armed with modern weapons, and the traditional cultures with their much more primitive arms, was summarized by the English poet Hilaire Belloc in a sardonic couplet:¹

Whatever happens, we have got
The Maxim gun, and they have not.

During the period between 1880 and 1914, British industrial and colonial dominance began to be challenged. Industrialism had spread from Britain to Belgium, Germany

¹The Maxim gun was one of the world's first automatic machine guns. It was invented in the United States in 1884 by Hiram S. Maxim. The explorer and colonialist Henry Morton Stanley (1841-1904) was extremely enthusiastic about Maxim's machine gun, and during a visit to the inventor he tried firing it, demonstrating that it really could fire 600 rounds per minute. Stanley commented that the machine gun would be "a valuable tool in helping civilization to overcome barbarism".



and the United States, and, to a lesser extent, to France, Italy, Russia and Japan. By 1914, Germany was producing twice as much steel as Britain, and the United States was producing four times as much.

New techniques in weaponry were introduced, and a naval armaments race began among the major industrial powers. The English found that their old navy was obsolete, and they had to rebuild. Thus, the period of colonial expansion between 1880 and 1914 was filled with tensions, as the industrial powers raced to arm themselves in competition with each other, and raced to seize as much as possible of the rest of the world. Industrial and colonial rivalry contributed to the outbreak of the First World War, to which the Second World War can be seen as a sequel.

With the founding of the United Nations at the end of the Second World War, a system of international law was set up to replace the rule of military force. Law is a mechanism for equality. Under law, the weak and the powerful are in principle equal. One of the basic purposes of the United Nations is to make war illegal, and if war is illegal, the powerful and weak are on equal footing, much to the chagrin of the powerful. How can one construct or maintain an empire if war is not allowed? It is only natural that powerful nations should be opposed to international law, since it is a curb on their power. However, despite opposition, the United Nations has been largely successful in ending the era of colonialism, perhaps because of the balance of power between East and West during the Cold War. One by one, former colonies have regained their independence.

2.4 Persistent effects of colonialism

Part of the extreme economic inequality that exists in today's world is due to colonial and neocolonial wars.

The English economist and Fabian, John Atkinson Hobson (1858-1940), offered a famous explanation of the colonial era in his book "Imperialism: A Study" (1902). According

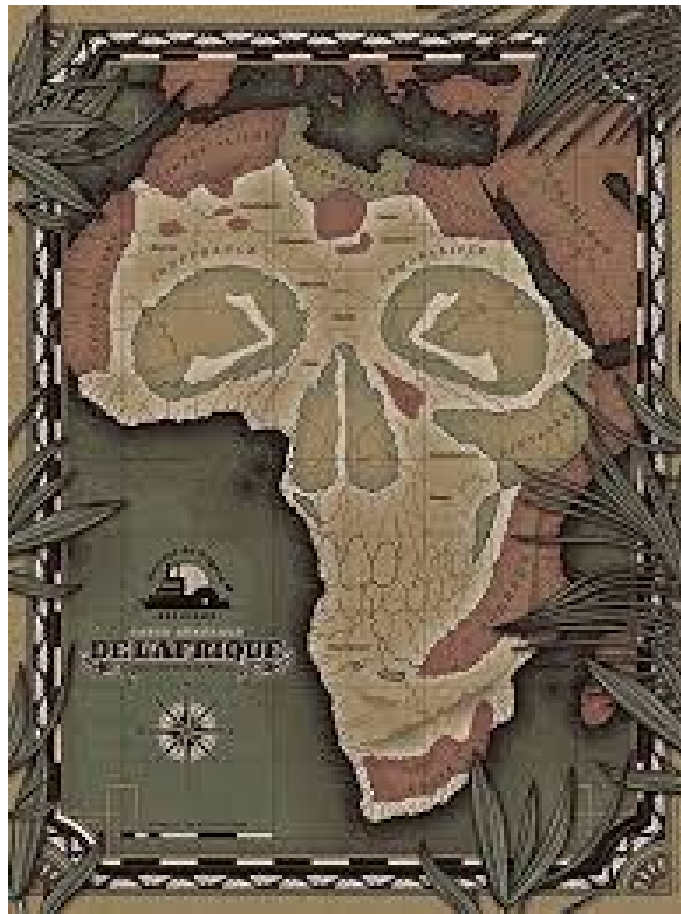


Figure 2.2: **Half of the population of Belgian Congo died during the rule of Leopold II.**

to Hobson, the basic problem that led to colonial expansion was an excessively unequal distribution of incomes in the industrialized countries. The result of this unequal distribution was that neither the rich nor the poor could buy back the total output of their society. The incomes of the poor were insufficient, and rich were too few in number. The rich had finite needs, and tended to reinvest their money. As Hobson pointed out, reinvestment in new factories only made the situation worse by increasing output.

Hobson had been sent as a reporter by the Manchester Guardian to cover the Second Boer War. His experiences had convinced him that colonial wars have an economic motive. Such wars are fought, he believed, to facilitate investment of the excess money of the rich in African or Asian plantations and mines, and to make possible the overseas sale of excess manufactured goods. Hobson believed imperialism to be immoral, since it entails suffering both among colonial peoples and among the poor of the industrial nations. The cure that he recommended was a more equal distribution of incomes in the manufacturing countries.

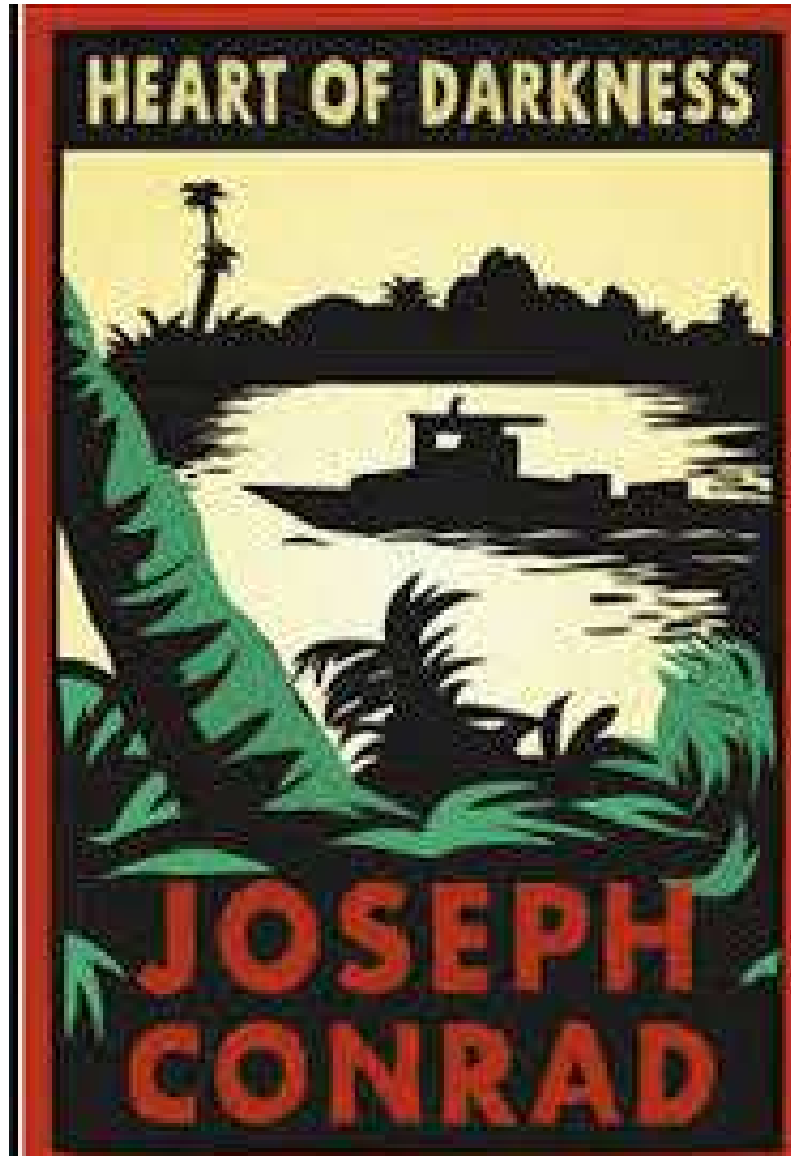


Figure 2.3: Joseph Conrad's famous book was written against the background of Leopold's atrocities.

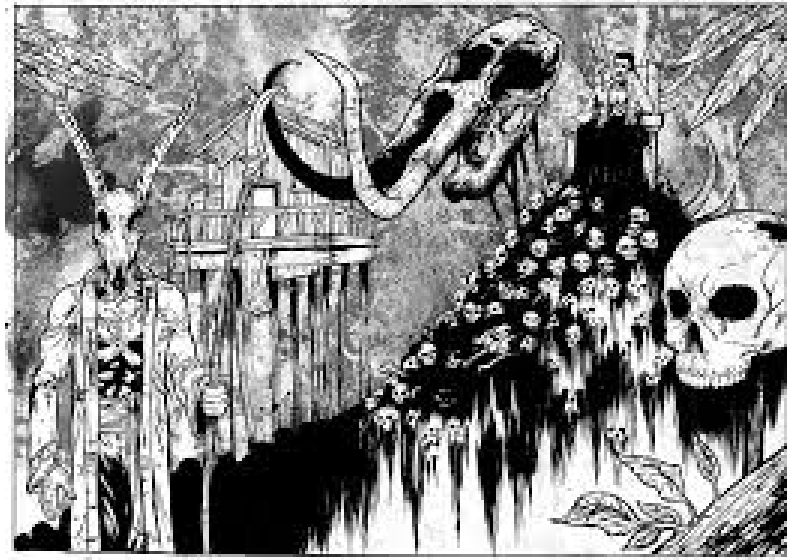


Figure 2.4: **Heart of Darkness: An illustration for Joseph Conrad’s book.**

2.5 Racism, colonialism and exceptionalism

It seems to be possible for nations, and the majority of their citizens, to commit the worst imaginable atrocities, including torture, murder and genocide, while feeling that what they are doing is both noble and good. Some understanding of how this is possible can be gained by watching the 3-part BBC documentary, “The History of Racism”.²

The series was broadcast by BBC Four in March 2007, and videos of the broadcasts are available on the Internet. Watching this eye-opening documentary can give us much insight into the link between racism and colonialism. We can also begin to see how both racism and colonialism are linked to US exceptionalism and neocolonialism.

2.6 Leopold II and Atrocities in Belgian Congo

Looking at the BBC documentary we can see how often in human history economic greed and colonial exploitation have been justified by racist theories. The documentary describes almost unbelievable cruelties committed against the peoples of the Americas and Africa by Europeans. For example, in the Congo, a vast region which King Leopold II of Belgium claimed as his private property, the women of villages were held as hostages while the men were forced to gather rubber in the forests. Since neither the men nor the women could produce food under these circumstances, starvation was the result.

Leopold’s private army of 90,000 men were issued ammunition, and to make sure that

²<https://www.youtube.com/watch?v=efI6T8lovqY>
<https://www.youtube.com/watch?v=IdBDRbjx9jo>
<https://www.youtube.com/watch?v=oCJHJWaNL-g>



Figure 2.5: **Heart of Darkness: Another illustration for Conrad's book.**

they used it in the proper way, the army was ordered to cut off the hands of their victims and send them back as proof that the bullets had not been wasted. Human hands became a kind of currency, and hands were cut off from men, women and children when rubber quotas were not fulfilled. Sometimes more than a thousand human hands were gathered in a single day. During the rule of Leopold, roughly 10,000,000 Congolese were killed, which was approximately half the population of the region.

According to the racist theories that supported these atrocities, it was the duty of philanthropic Europeans like Leopold to bring civilization and the Christian religion to Africa. Similar theories were used to justify the genocides committed by Europeans against the native inhabitants of the Americas.

Racist theories were also used to justify enormous cruelties committed by the British colonial government in India. For example, during the great famine of 1876-1878, in which ten million people died, the Viceroy, Lord Lytton, oversaw the export to England of a record 6.4 million hundredweight of wheat.

Meanwhile, in Europe, almost everyone was proud of the role which they were playing in the world. All that they read in newspapers and in books or heard from the pulpits of their churches supported the idea that they were serving the non-Europeans by bringing them the benefits of civilization and Christianity. On the whole, the mood of Europe during this orgy of external cruelty and exploitation, was self-congratulatory.

Can we not see a parallel with the self-congratulatory mood of the American people and their allies, who export violence, murder, torture and neocolonialism to the whole world, and who justify it by thinking of themselves as "exceptional"?



Figure 2.6: Heart of Darkness: Joseph Conrad.



Figure 2.7: Heart of Darkness: King Leopold II of Belgium and some of his victims.



Figure 2.8: **Heart of Darkness:** A drawing used in the campaign to end Leopold's personal ownership of the Congo.



Figure 2.9: **Heart of Darkness:** In Leopold's Congo, human hands became a currency.



Figure 2.10: Heart of Darkness: Part of a palace built by Leopold II to glorify his “humanitarian” activities in the Congo.



Figure 2.11: Heart of Darkness. A statue of Leopold II.



Figure 2.12: Bones left by the German Kaiser's African genocide.

2.7 The Kaiser's genocide

A book entitled *The Kaiser's Holocaust: Germany's Forgotten Genocide and the Colonial Roots of Nazism*, by David Olusoga and Caspar W. Erichsen describes Germany's involvement in an African genocide. Here is Amazon's synopsis of the book: "On 12 May 1883, the German flag was raised on the coast of South-West Africa, modern Namibia - the beginnings of Germany's African Empire. As colonial forces moved in, their ruthless punitive raids became an open war of extermination. Thousands of the indigenous people were killed or driven out into the desert to die. By 1905, the survivors were interned in concentration camps, and systematically starved and worked to death. Years later, the people and ideas that drove the ethnic cleansing of German South West Africa would influence the formation of the Nazi party. The Kaiser's Holocaust uncovers extraordinary links between the two regimes: their ideologies, personnel, even symbols and uniform. The Herero and Nama genocide was deliberately concealed for almost a century. Today, as the graves of the victims are uncovered, its re-emergence challenges the belief that Nazism was an aberration in European history. The Kaiser's Holocaust passionately narrates this harrowing story and explores one of the defining episodes of the twentieth century from a new angle. Moving, powerful and unforgettable, it is a story that needs to be told."

2.8 The racism of Cecil Rhodes

Cecil Rhodes, who was born in Bishop's Stortford in Hertfordshire, came to South Africa in the late 1800s and made his fortune in the country's diamond mines before moving into politics. He served as prime minister of the Cape Colony and later founded the southern

African territory of Rhodesia, which would later become independent Zimbabwe. He was the architect of South Africa's notorious apartheid system, and a rabid advocate of British imperialism. Social Darwinism and the eugenics movement may have contributed to the racism and imperialism of Cecil Rhodes.

In a December 2015 article in *The Telegraph*, Dalia Gebrial wrote: "Cecil Rhodes was a man responsible for untold, unending devastation and violence. An architect of South African apartheid, he explicitly believed in the existence of an Anglo-Saxon master race - an ideology that drove him to not only steal approximately one [square] million miles of South African land, but to facilitate the deaths of hundreds of thousands of black South Africans.

"His establishment of a paramilitary private army, the British South Africa Company's Police (BSACP) resulted in the systematic murder of approximately 60,000 people; his amendment of the Masters and Servants Act (1890) reintroduced conditions of torture for black labourers; his infamous racist 'land grabs' set up a system in which the unlawful and illegitimate acquisition of land through armed force was routine.

"In 1887 he told the House of Assembly in Cape Town: 'The native is to be treated as a child and denied the franchise. We must adopt a system of despotism in our relations with the barbarians of South Africa.' His 1892 Franchise and Ballot Act effectively eliminated African voting rights. He repeatedly reminded his colleagues of the 'extreme caution' they must exercise when it comes to 'granting the franchise to coloured people.

Rhodes wanted to create an international movement to extend British influence. He once said: "Why should we not form a secret society with but one object, the furtherance of the British Empire and the bringing of the whole world under British rule, for the recovery of the United States, for making the Anglo-Saxon race but one Empire?"

Rhodes did, in fact, establish this secret society, and it remains very influential today. According to G. Edward Griffin³, "Financed by Nathan Rothschild and the Bank of England, he [Rhodes] established a monopoly over the diamond output of South Africa and most of the gold as well. He formed a secret society which included many of the top leaders of British government. Their elitist goal was nothing less than world domination and the establishment of a modern feudal society controlled by themselves through the world's central banks. In America, the Council on Foreign Relations (CFR) was an outgrowth of that group."

Plot to overthrow Roosevelt through a fascist coup

The interested reader can find a detailed description of this plot in an article by Matt Riemann, entitled *These Wall Street millionaires literally plotted to overthrow the president*, Timeline. August 11, 2017⁴

³in his book, *The Creature from Jeckyll Island*

⁴<https://timeline.com/business-plot-overthrow-fdr-9a59a012c32a>



Figure 2.13: Native Americans protesting against the Dakota Access Pipeline.

2.9 Our older brothers can help us today

The distinguished English author Anne Baring describes the indigenous peoples of the world as our “older brothers”. They are anxious to give their “younger brothers” (us) advice about how to preserve the earth, rather than destroying it. But we do not listen. Instead, we murder them because of greed, because we want to take their land.

Pipeline protests by Native Americans

As a recent example of the way in which we respond to our “older brothers” when they urge us to behave in an environmentally responsible manner, we can consider the pipeline protests at Standing Rock. Wikipedia describe these protests as follows:

“On September 3, 2016, during Labor Day weekend, the Dakota Access Pipeline brought in a private security firm when the company used bulldozers to dig up part of the pipeline route that contained possible Native graves and burial artifacts; it was subject to a pending injunction motion. The bulldozers arrived within a day after the tribe filed legal action. Energy Transfer bulldozers cut a two-mile (3200 m) long, 150-foot (45 m) wide path through the contested area.

“When unarmed protesters crossed the perimeter fence to stop the bulldozers, the guards used pepper spray and guard dogs to attack. At least six protesters were treated for dog bites, and an estimated 30 were pepper-sprayed before the guards and their dogs left the scene in trucks. A woman that had taken part in the incident stated, ‘The cops watched the whole thing from up on the hills. It felt like they were trying to provoke us into being violent when we’re peaceful.’ The incident was filmed by Amy Goodman and a crew from Democracy Now! Footage shows several people with dog bites and a dog with blood on its muzzle.

“Some protesters who were arrested for misdemeanors and taken to the Morton County

jail reported what they considered harsh and unusual treatment. Sara Jumping Eagle, a physician on the Standing Rock Sioux Reservation, was required to remove all of her clothing and ‘squat and cough’ when she was arrested for disorderly conduct. In another such case, LaDonna Brave Bull Allard, who founded Sacred Stone Camp, said that when her daughter was arrested and taken into custody she was ‘strip-searched in front of multiple male officers, then left for hours in her cell, naked and freezing.’ Cody Hall from Cheyenne River Reservation in South Dakota also reported being strip-searched. He was held for four days without bail or bond and then charged with two misdemeanors.”

Beacue of public indignation, construction of the pipeline was halted in December, 2016. However, on February 7, 2017, newly-elected Donald Trump authorized the Army Corps of Engineers to proceed, ending its environmental impact assessment and the associated public comment period. The director of the Indigenous Environmental Network released a statement saying: “The granting of an easement, without any environmental review or tribal consultation, is not the end of this fight - it is the new beginning. Expect mass resistance far beyond what Trump has seen so far.”

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Chapter 3

TRIBALISM

3.1 Ethology

In the long run, because of the terrible weapons that have already been produced through the misuse of science, and because of the even more terrible weapons that are likely to be invented in the future, the only way in which we can ensure the survival of civilization is to abolish the institution of war. But is this possible? Or are the emotions that make war possible so much a part of human nature that we cannot stop humans from fighting any more than we can stop cats and dogs from fighting? Can biological science throw any light on the problem of why our supposedly rational species seems intent on choosing war, pain and death instead of peace, happiness and life? To answer this question, we need to turn to the science of ethology - the study of inherited emotional tendencies and behavior patterns in animals and humans.

In *The Origin of Species*, Charles Darwin devoted a chapter to the evolution of instincts, and he later published a separate book on *The Expression of the Emotions in Man and Animals*. Because of these pioneering studies, Darwin is considered to be the founder of ethology.

Behind Darwin's work in this field is the observation that instinctive behavior patterns are just as reliably inherited as morphological characteristics. Darwin was also impressed by the fact that within a given species, behavior patterns have some degree of uniformity, and the fact that the different species within a family are related by similarities of instinctive behavior, just as they are related by similarities of bodily form. For example, certain elements of cat-like behavior can be found among all members of the cat family; and certain elements of dog-like or wolf-like behavior can be found among all members of the dog family. On the other hand, there are small variations in instinct among the members of a given species. For example, not all domestic dogs behave in the same way.

"Let us look at the familiar case of breeds of dogs", Darwin wrote in *The Origin of Species*, "It cannot be doubted that young pointers will sometimes point and even back other dogs the very first time they are taken out; retrieving is certainly in some degree inherited by retrievers; and a tendency to run round, instead of at, a flock of sheep by

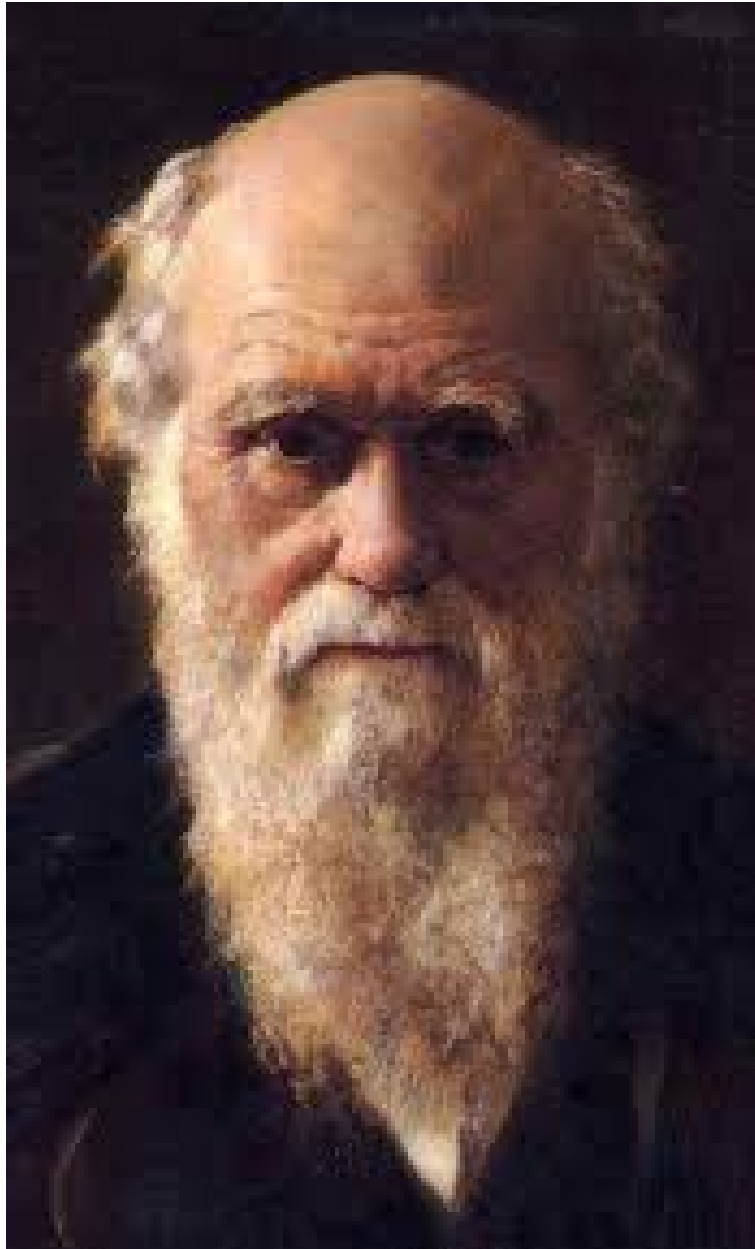


Figure 3.1: Because of Charles Darwin's book "The Expression of Emotions in Man and Animals", he is considered to be the founder of the field of Ethology, the study of inherited behavior patterns.

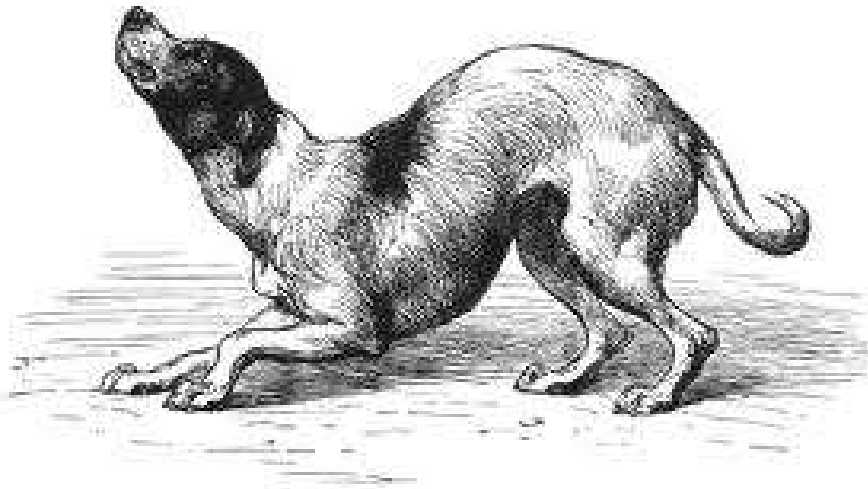


Figure 3.2: A dog expressing affection towards its master.

shepherd dogs. I cannot see that these actions, performed without experience by the young, and in nearly the same manner by each individual, and without the end being known - for the young pointer can no more know that he points to aid his master than the white butterfly knows why she lays her eggs on the leaf of the cabbage - I cannot see that these actions differ essentially from true instincts..."

"How strongly these domestic instincts habits and dispositions are inherited, and how curiously they become mingled, is well shown when different breeds of dogs are crossed. Thus it is known that a cross with a bulldog has affected for many generations the courage and obstinacy of greyhounds; and a cross with a greyhound has given to a whole family of shepherd dogs a tendency to hunt hares..."

Darwin believed that in nature, desirable variations of instinct are propagated by natural selection, just as in the domestication of animals, favorable variations of instinct are selected and propagated by kennelmen and stock breeders. In this way, according to Darwin, complex and highly developed instincts, such as the comb-making instinct of honey-bees, have evolved by natural selection from simpler instincts, such as the instinct by which bumble bees use their old cocoons to hold honey and sometimes add a short wax tube.

In the introduction of his book, *The Expression of the Emotions in Man and Animals*, Darwin says "I thought it very important to ascertain whether the same expressions and gestures prevail, as has often been asserted without much evidence, with all the races of mankind, especially with those who have associated but little with Europeans. Whenever the same movements of the features or body express the same emotions in several distinct races of man, we may infer with much probability, that such expressions are true ones, - that is, are innate or instinctive."

To gather evidence on this point, Darwin sent a printed questionnaire on the expression

of human emotions and sent it to missionaries and colonial administrators in many parts of the world. There were 16 questions to be answered:

1. *Is astonishment expressed by the eyes and mouth being opened wide, and by the eyebrows being raised?*
2. *Does shame excite a blush when the colour of the skin allows it to be visible? and especially how low down on the body does the blush extend?*
3. *When a man is indignant or defiant does he frown, hold his body and head erect, square his shoulders and clench his fists?*
4. *When considering deeply on any subject, or trying to understand any puzzle, does he frown, or wrinkle the skin beneath the lower eyelids?*

and so on.

Darwin received 36 replies to his questionnaire, many coming from people who were in contact with extremely distinct and isolated groups of humans. The results convinced him that our emotions and the means by which they are expressed are to a very large extent innate, rather than culturally determined, since the answers to his questionnaire were so uniform and so independent of both culture and race. In preparation for his book, he also closely observed the emotions and their expression in very young babies and children, hoping to see inherited characteristics in subjects too young to have been greatly influenced by culture. Darwin's observations convinced him that in humans, just as in other mammals, the emotions and their expression are to a very large extent inherited universal characteristics of the species.

The study of inherited behavior patterns in animals (and humans) was continued in the 20th century by such researchers as Karl von Frisch (1886-1982), Nikolaas Tinbergen (1907-1988), and Konrad Lorenz (1903-1989), three scientists who shared a Nobel Prize in Medicine and Physiology in 1973.

Karl von Frisch, the first of the three ethologists who shared the 1973 prize, is famous for his studies of the waggle-dance of honeybees. Bees guide each other to sources of food by a genetically programmed signaling method - the famous waggle dance, deciphered in 1945 by von Frisch. When a worker bee has found a promising food source, she returns to the hive and performs a complex dance, the pattern of which indicates both the direction and distance of the food. The dancer moves repeatedly in a pattern resembling the Greek letter Θ . If the food-discoverer is able to perform her dance on a horizontal flat surface in view of the sun, the line in the center of the pattern points in the direction of the food. However, if the dance is performed in the interior of the hive on a vertical surface, gravity takes the place of the sun, and the angle between the central line and the vertical represents the angle between the food source and the sun.

The central part of the dance is, in a way, a re-enactment of the excited forager's flight to the food. As she traverses the central portion of the pattern, she buzzes her wings and waggles her abdomen rapidly, the number of waggles indicating the approximate distance

to the food¹. After this central portion of the dance, she turns alternately to the left or to the right, following one or the other of the semicircles, and repeats the performance. Studies of the accuracy with which her hive-mates follow these instructions show that the waggle dance is able to convey approximately 7 bits of information - 3 bits concerning distance and 4 bits concerning direction. After making his initial discovery of the meaning of the dance, von Frisch studied the waggle dance in many species of bees. He was able to distinguish species-specific dialects, and to establish a plausible explanation for the evolution of the dance.

Among the achievements for which Tinbergen is famous are his classic studies of instinct in herring gulls. He noticed that the newly-hatched chick of a herring gull pecks at the beak of its parent, and this signal causes the parent gull to regurgitate food into the gaping beak of the chick. Tinbergen wondered what signal causes the chick to initiate this response by pecking at the beak of the parent gull. Therefore he constructed a series of models of the parent in which certain features of the adult gull were realistically represented while other features were crudely represented or left out entirely. He found by trial and error that the essential signal to which the chick responds is the red spot on the tip of its parent's beak. Models which lacked the red spot produced almost no response from the young chick, although in other respects they were realistic models; and the red spot on an otherwise crude model would make the chick peck with great regularity.

In other experiments, Tinbergen explored the response of newly-hatched chicks of the common domestic hen to models representing a hawk. Since the chicks were able to recognize a hawk immediately after hatching, he knew that the response must be genetically programmed. Just as he had done in his experiments with herring gulls, Tinbergen experimented with various models, trying to determine the crucial characteristic that was recognized by the chicks, causing them to run for cover. He discovered that a crude model in the shape of the letter T invariable caused the response if pulled across the sky with the wings first and tail last. (Pulled backwards, the T shape caused no response.)

In the case of a newly-hatched herring gull chick pecking at the red spot on the beak of its parent, the program in the chick's brain must be entirely genetically determined, without any environmental component at all. Learning cannot play a part in this behavioral pattern, since the pattern is present in the young chick from the very moment when it breaks out of the egg. On the other hand (Tinbergen pointed out) many behavioral patterns in animals and in man have both an hereditary component and an environmental component. Learning is often very important, but learning seems to be built on a foundation of genetic predisposition.

To illustrate this point, Tinbergen called attention to the case of sheep-dogs, whose remote ancestors were wolves. These dogs, Tinbergen tells us, can easily be trained to drive a flock of sheep towards the shepherd. However, it is difficult to train them to drive the sheep away from their master. Tinbergen explained this by saying that the sheep-dogs regard the shepherd as their "pack leader"; and since driving the prey towards the pack

¹The number of waggles is largest when the source of food is near, and for extremely nearby food, the bees use another dance, the "round dance".



Figure 3.3: The red spot on the beak of the parent gull proved to be the crucial signal needed to activate the instinctive response of the chick.



Figure 3.4: Nikolaas Tinbergen (1907-1988) on the left, with Konrad Lorenz (1903-1989). Together with Karl von Frisch (1886-1982) they shared the 1973 Nobel Prize in Physiology and Medicine for their pioneering work in Ethology.



Figure 3.5: **Konrad Lorenz with geese who consider him to be their mother.**

leader is part of the hunting instinct of wolves, it is easy to teach the dogs this maneuver. However, driving the prey away from the pack leader would not make sense for wolves hunting in a pack; it is not part of the instinctive makeup of wolves, nor is it a natural pattern of behavior for their remote descendants, the sheep-dogs.

As a further example of the fact that learning is usually built on a foundation of genetic predisposition, Tinbergen mentions the ease with which human babies learn languages. The language learned is determined by the baby's environment; but the astonishing ease with which a human baby learns to speak and understand implies a large degree of genetic predisposition.

The third of the 1973 prizewinners, Konrad Lorenz, is more controversial, but at the same time very interesting in the context of studies of the causes of war and discussions of how war may be avoided. As a young boy, he was very fond of animals, and his tolerant parents allowed him to build up a large menagerie in their house in Altenberg, Austria. Even as a child, he became an expert on waterfowl behavior, and he discovered the phenomenon of imprinting. He was given a one day old duckling, and found, to his intense joy, that it transferred its following response to his person. As Lorenz discovered, young waterfowl have a short period immediately after being hatched, when they identify as their "mother" whomever they see first. In later life, Lorenz continued his studies of imprinting, and there exists a touching photograph of him, with his white beard, standing waist-deep in a pond, surrounded by an adoring group of goslings who believe him to be

their mother. Lorenz also studied bonding behavior in waterfowl.

It is, however, for his controversial book *On Aggression* that Konrad Lorenz is best known. In this book, Lorenz makes a distinction between intergroup aggression and intragroup aggression. Among animals, he points out, rank-determining fights are seldom fatal. Thus, for example, the fights that determine leadership within a wolf pack end when the loser makes a gesture of submission. By contrast, fights between groups of animals are often fights to the death, examples being wars between ant colonies, or of bees against intruders, or the defense of a rat pack against strange rats.

Many animals, humans included, seem willing to kill or be killed in defense of the communities to which they belong. Lorenz calls this behavioral tendency a “communal defense response”. He points out that the “holy shiver” - the tingling of the spine that humans experience when performing a heroic act in defense of their communities - is related to the prehuman reflex for raising the hair on the back of an animal as it confronts an enemy - a reflex that makes the animal seem larger than it really is.

Konrad Lorenz and his followers have been criticized for introducing a cathartic model of instincts. According to Lorenz, if an instinct is not used, a pressure for its use builds up over a period of time. In the case of human aggression, according to Lorenz, the nervous energy has to be dissipated in some way, either harmlessly through some substitute for aggression, or else through actual fighting. Thus, for example, Lorenz believed that violent team sports help to reduce the actual level of violence in a society. This conclusion has been challenged by the distinguished ethologist Prof. R.A. Hinde and by many others in his field who believe that there is no experimental evidence for the cathartic model of aggression.²

Professor Hinde points out that unused instincts tend to atrophy; and he concludes that violent team sports or violence shown on television tend to raise rather than lower the level of harmful violence in a society. Although the cathartic model of aggression is now widely considered to be incorrect (and on this point I certainly agree with Professor Hinde) it seems probable that the communal defense response discussed by Lorenz will prove to be a correct and useful concept. The communal defense mechanism can be thought of as the aspect of human emotions which makes it natural for soldiers to kill or be killed in defense of their countries. In the era before nuclear weapons made war prohibitively dangerous, such behavior was considered to be the greatest of virtues.

Generations of schoolboys have learned the Latin motto: “Dulce et decorum est pro patria mori” - it is both sweet and noble to die for one’s country. Even in today’s world,

²In a 1985 letter to the author, Professor Hinde wrote; “Dear Dr. Avery, I found your pamphlet ‘The World as it is and the World as it could be’ a very inspiring document, and I hope that it will be widely circulated. But just one comment - amongst the suggestions for further reading you include Konrad Lorenz’s ‘On Aggression’. The message that comes from this book is that human aggressiveness is inevitably part of our human nature, and we must seek harmless outlets for it. This rests on a cathartic model of human behavior that is outdated. A more appropriate message is that we must find ways of rearing our children so that their propensity to show aggression is reduced, and provide individuals with environments in which any aggressive propensities are not called forth. I’m sure you would agree with this. I hope that you will forgive this slight reservation about what seems to me to be a totally admirable and important statement. With best wishes, Yours sincerely, Robert A. Hinde.

death in battle in defense of country and religion is still praised by nationalists. However, because of the development of weapons of mass destruction, both nationalism and narrow patriotism have become dangerous anachronisms.

In thinking of violence and war, we must be extremely careful not to confuse the behavioral patterns that lead to wife-beating or bar-room brawls with those that lead to episodes like the trench warfare of the First World War, or to the nuclear bombing of Hiroshima and Nagasaki. The first type of aggression is similar to the rank-determining fights of animals, while the second is more akin to the team-spirit exhibited by a football side. Heroic behavior in defense of one's community has been praised throughout the ages, but the tendency to such behavior has now become a threat to the survival of civilization, since tribalism makes war possible, and war with thermonuclear weapons threatens civilization with catastrophe.

In an essay entitled *The Urge to Self-Destruction*³, Arthur Koestler says:

“Even a cursory glance at history should convince one that individual crimes, committed for selfish motives, play a quite insignificant role in the human tragedy compared with the numbers massacred in unselfish love of one's tribe, nation, dynasty, church or ideology... Wars are not fought for personal gain, but out of loyalty and devotion to king, country or cause...”

“We have seen on the screen the radiant love of the Führer on the faces of the Hitler Youth... They are transfixed with love, like monks in ecstasy on religious paintings. The sound of the nation's anthem, the sight of its proud flag, makes you feel part of a wonderfully loving community. The fanatic is prepared to lay down his life for the object of his worship, as the lover is prepared to die for his idol. He is, alas, also prepared to kill anybody who represents a supposed threat to the idol.” The emotion described here by Koestler is the same as the communal defense mechanism (“militant enthusiasm”) described in biological terms by Lorenz.

In his book *On Aggression*, Konrad Lorenz gives the following description of the emotions of a hero preparing to risk his life for the sake of the group:

“In reality, militant enthusiasm is a specialized form of communal aggression, clearly distinct from and yet functionally related to the more primitive forms of individual aggression. Every man of normally strong emotions knows, from his own experience, the subjective phenomena that go hand in hand with the response of militant enthusiasm. A shiver runs down the back and, as more exact observation shows, along the outside of both arms. One soars elated, above all the ties of everyday life, one is ready to abandon all for the call of what, in the moment of this specific emotion, seems to be a sacred duty. All obstacles in its path become unimportant; the instinctive inhibitions against hurting or killing one's fellows lose, unfortunately, much of their power. Rational considerations, criticisms, and all reasonable arguments against the behavior dictated by militant enthusiasm are silenced by an amazing reversal of all values, making them appear not only untenable, but base and dishonorable.

³in *The Place of Value in a World of Facts*, A. Tiselius and S. Nielsson editors, Wiley, New York, (1970)

Men may enjoy the feeling of absolute righteousness even while they commit atrocities. Conceptual thought and moral responsibility are at their lowest ebb. As the Ukrainian proverb says: ‘When the banner is unfurled, all reason is in the trumpet’.”

“The subjective experiences just described are correlated with the following objectively demonstrable phenomena. The tone of the striated musculature is raised, the carriage is stiffened, the arms are raised from the sides and slightly rotated inward, so that the elbows point outward. The head is proudly raised, the chin stuck out, and the facial muscles mime the ‘hero face’ familiar from the films. On the back and along the outer surface of the arms, the hair stands on end. This is the objectively observed aspect of the shiver!”

“Anybody who has ever seen the corresponding behavior of the male chimpanzee defending his band or family with self-sacrificing courage will doubt the purely spiritual character of human enthusiasm. The chimp, too, sticks out his chin, stiffens his body, and raises his elbows; his hair stands on end, producing a terrifying magnification of his body contours as seen from the front. The inward rotation of the arms obviously has the purpose of turning the longest-haired side outward to enhance the effect. The whole combination of body attitude and hair-raising constitutes a bluff. This is also seen when a cat humps its back, and is calculated to make the animal appear bigger and more dangerous than it really is. Our shiver, which in German poetry is called a ‘heiliger Schauer’, a ‘holy’ shiver, turns out to be the vestige of a prehuman vegetative response for making a fur bristle which we no longer have. To the humble seeker for biological truth, there cannot be the slightest doubt that human militant enthusiasm evolved out of a communal defense response of our prehuman ancestor.”

Lorenz goes on to say, “An impartial visitor from another planet, looking at man as he is today - in his hand the atom bomb, the product of his intelligence - in his heart the aggression drive, inherited from his anthropoid ancestors, which the same intelligence cannot control - such a visitor would not give mankind much chance of survival.”

There are some semantic difficulties connected with discussions of the parts of human nature that make war possible. In one of the passages quoted above, Konrad Lorenz speaks of “militant enthusiasm”, which he says is both a form of communal aggression and also a communal defense response. In their inspiring recent book *War No More*, Professor Robert Hinde and Sir Joseph Rotblat use the word “duty” in discussing the same human emotional tendencies. I will instead use the word “tribalism”.

I prefer the word “tribalism” because from an evolutionary point of view the human emotions involved in war grew out of the territorial competition between small tribes during the formative period when our ancestors were hunter-gatherers on the grasslands of Africa. Members of tribe-like groups are bound together by strong bonds of altruism and loyalty. Echos of these bonds can be seen in present-day family groups, in team sports, in the fellowship of religious congregations, and in the bonds that link soldiers to their army comrades and to their nation.

Warfare involves not only a high degree of aggression, but also an extremely high degree of altruism. Soldiers kill, but they also sacrifice their own lives. Thus patriotism and duty are as essential to war as the willingness to kill. As Arthur Koestler points out, “Wars are not fought for personal gain, but out of loyalty and devotion to king, country or cause...”

Tribalism involves passionate attachment to one's own group, self-sacrifice for the sake of the group, willingness both to die and to kill if necessary to defend the group from its enemies, and belief that in case of a conflict, one's own group is always in the right.

3.2 Population genetics

If we examine altruism and aggression in humans, we notice that members of our species exhibit great altruism towards their own children. Kindness towards close relatives is also characteristic of human behavior, and the closer the biological relationship is between two humans, the greater is the altruism they tend to show towards each other. This profile of altruism is easy to explain on the basis of Darwinian natural selection since two closely related individuals share many genes and, if they cooperate, the genes will be more effectively propagated.

To explain from an evolutionary point of view the communal defense mechanism discussed by Lorenz - the willingness of humans to kill and be killed in defense of their communities - we have only to imagine that our ancestors lived in small tribes and that marriage was likely to take place within a tribe rather than across tribal boundaries. Under these circumstances, each tribe would tend to consist of genetically similar individuals. The tribe itself, rather than the individual, would be the unit on which the evolutionary forces of natural selection would act. The idea of group selection in evolution was proposed in the 1930's by J.B.S. Haldane and R.A. Fischer, and more recently it has been discussed by W.D. Hamilton and E.O. Wilson.

According to the group selection model, a tribe whose members showed altruism towards each other would be more likely to survive than a tribe whose members cooperated less effectively. Since several tribes might be in competition for the same territory, intertribal aggression might, under some circumstances, increase the chances for survival of one's own tribe. Thus, on the basis of the group selection model, one would expect humans to be kind and cooperative towards members of their own group, but at the same time to sometimes exhibit aggression towards members of other groups, especially in conflicts over territory. One would also expect intergroup conflicts to be most severe in cases where the boundaries between groups are sharpest - where marriage is forbidden across the boundaries.



Figure 3.6: **Sir Ronald Aylmer Fisher (1890-1962).** Together with J.B.S Haldane he pioneered the theory of population genetics. Recent contributions to this theory have been made by W.D. Hamilton and E.O. Wilson.

3.3 Formation of group identity

Although humans originally lived in small, genetically homogeneous tribes, the social and political groups of the modern world are much larger, and are often multiracial and multiethnic.

There are a number of large countries that are remarkable for their diversity, for example Brazil, Argentina and the United States. Nevertheless it has been possible to establish social cohesion and group identity within each of these enormous nations. India and China too, are mosaics of diverse peoples, but nevertheless, they function as coherent societies. Thus we see that group identity is a social construction, in which artificial “tribal markings” define the boundaries of the group. These tribal markings will be discussed in more detail below.

One gains hope for the future by observing how it has been possible to produce both internal peace and social cohesion over very large areas of the globe - areas that contain extremely diverse populations. The difference between making large, ethnically diverse countries function as coherent sociopolitical units and making the entire world function as a unit is not very great.

Since group identity is a social construction, it is not an impossible goal to think of enlarging the already-large groups of the modern world to include all of humanity.

3.4 Religion and ethnic identity

For the hominids that formed a bridge between present-day humans and the common ancestor of ourselves and the anthropoid apes, culture included not only rudimentary language, but also skills such as methods of tool-making and weapon making.

An acceleration of human cultural development seems to have begun approximately 70,000 years ago. The first art objects date from that period, as do migrations that ultimately took modern man across the Bering Strait to the western hemisphere. A land bridge extending from Siberia to Alaska is thought to have been formed approximately 70,000 years ago, disappearing again roughly 10,000 years before the present. Cultural and genetic studies indicate that migrations from Asia to North America took place during this period. Shamanism,⁴ which is found both in Asia and the new world, as well as among the Sami (Lapps) of northern Scandinavia, is an example of the cultural links between the hunting societies of these regions.

Before the acceleration of human cultural development just mentioned, genetic change and cultural change went hand in hand, but during the last 70,000 years, the constantly accelerating rate of information-accumulation and cultural evolution has increasingly out-distanced the rate of genetic change in humans. Genetically we are almost identical with

⁴A shaman is a special member of a hunting society who, while in a trance, is thought to be able pass between the upper world, the present world, and the lower world, to cure illnesses, and to insure the success of a hunt.

our hunter-gatherer ancestors of 70,000 years ago, but cultural evolution has changed our way of life beyond recognition.

Humans are capable of cultural evolution because it is so easy to overwrite and modify our instinctive behavior patterns with learned behavior. Within the animal kingdom, humans are undoubtedly the champions in this respect. No other species is so good at learning as we are. During the early stages of cultural evolution, the tendency of humans to be religious may have facilitated the overwriting of instinctive behavior with the culture of the tribe. Since religions, like languages, are closely associated with particular cultures, they serve as marks of ethnic identity.

3.5 Tribal markings; ethnicity; pseudospeciation

In biology, a species is defined to be a group of mutually fertile organisms. Thus all humans form a single species, since mixed marriages between all known races will produce children, and subsequent generations in mixed marriages are also fertile. However, although there is never a biological barrier to marriages across ethnic and racial boundaries, there are often very severe cultural barriers.

Irenäus Eibl-Eibesfeldt, a student of Konrad Lorenz, introduced the word *pseudospeciation* to denote cases where cultural barriers between two groups of humans are so strongly marked that marriages across the boundary are difficult and infrequent. In such cases, he pointed out, the two groups function as though they were separate species, although from a biological standpoint this is nonsense. When two such groups are competing for the same land, the same water, the same resources, and the same jobs, the conflicts between them can become very bitter indeed. Each group regards the other as being “not truly human”.

In his book *The Biology of War and Peace*, Eibl-Eibesfeldt discusses the “tribal markings” used by groups of humans to underline their own identity and to clearly mark the boundary between themselves and other groups. One of the illustrations in the book shows the marks left by ritual scarification on the faces of the members of certain African tribes. These scars would be hard to counterfeit, and they help to establish and strengthen tribal identity. Seeing a photograph of the marks left by ritual scarification on the faces of African tribesmen, it is impossible not to be reminded of the dueling scars that Prussian army officers once used to distinguish their caste from outsiders.

Surveying the human scene, one can find endless examples of signs that mark the bearer as a member of a particular group - signs that can be thought of as “tribal markings”: tattoos; piercing; bones through the nose or ears; elongated necks or ears; filed teeth; Chinese binding of feet; circumcision, both male and female; unique hair styles; decorations of the tongue, nose, or naval; peculiarities of dress, fashions, veils, chadors, and headdresses; caste markings in India; use or nonuse of perfumes; codes of honor and value systems; traditions of hospitality and manners; peculiarities of diet (certain foods forbidden, others preferred); giving traditional names to children; knowledge of dances and songs; knowledge of recipes; knowledge of common stories, literature, myths, poetry or common history;



Figure 3.7: Scars help to establish tribal identity

festivals, ceremonies, and rituals; burial customs, treatment of the dead and ancestor worship; methods of building and decorating homes; games and sports peculiar to a culture; relationship to animals, knowledge of horses and ability to ride; nonrational systems of belief. Even a baseball hat worn backwards or the professed ability to enjoy atonal music can mark a person as a member of a special “tribe”. Undoubtedly there many people in New York who would never think of marrying someone who could not appreciate the the paintings of Jasper Johns, and many in London who would consider anyone had not read all the books of Virginia Wolfe to be entirely outside the bounds of civilization.

By far the most important mark of ethnic identity is language, and within a particular language, dialect and accent. If the only purpose of language were communication, it would be logical for the people of a small country like Denmark to stop speaking Danish and go over to a more universally-understood international language such as English. However, language has another function in addition to communication: It is also a mark of identity. It establishes the boundary of the group.

Within a particular language, dialects and accents mark the boundaries of subgroups. For example, in England, great social significance is attached to accents and diction, a tendency that George Bernard Shaw satirized in his play, *Pygmalion*, which later gained greater fame as the musical comedy, *My Fair Lady*. This being the case, we can ask why all citizens of England do not follow the example of Eliza Doolittle in Shaw’s play, and improve their social positions by acquiring Oxford accents. However, to do so would be to run the risk of being laughed at by one’s peers and regarded as a traitor to one’s own local community and friends. School children everywhere can be very cruel to any child who does not fit into the local pattern. At Eton, an Oxford accent is compulsory; but in a Yorkshire school, a child with an Oxford accent would suffer for it.



Figure 3.8: An example of the dueling scars that Prussian army officers once used to distinguish their caste from outsiders.

Next after language, the most important “tribal marking” is religion. As mentioned above, it seems probable that in the early history of our hunter-gatherer ancestors, religion evolved as a mechanism for perpetuating tribal traditions and culture. Like language, and like the innate facial expressions studied by Darwin, religion is a universal characteristic of all human societies. All known races and cultures practice some sort of religion. Thus a tendency to be religious seems to be built into human nature, or at any rate, the needs that religion satisfies seem to be a part of our inherited makeup. Otherwise, religion would not be so universal as it is.

Religion is often strongly associated with ethnicity and nationalism, that is to say, it is associated with the demarcation of a particular group of people by its culture or race. For example, the Jewish religion is associated with Zionism and with Jewish nationalism. Similarly Islam is strongly associated with Arab nationalism. Christianity too has played an important role in many aggressive wars, for example in the Crusades, in the European conquest of the New World, in European colonial conquests in Africa and Asia, and in the wars between Catholics and Protestants within Europe. We shall see in a later chapter how the originators of the German nationalist movement (the precursors of the Nazis), used quasi-religious psychological methods.

Human history seems to be saturated with blood. It would be impossible to enumerate the conflicts with which the story of humankind is stained. Many of the atrocities of history have involved what Irenäus Eibl-Eibesfeldt called “pseudospeciation”, that is to say, they were committed in conflicts involving groups between which sharply marked cultural barriers have made intermarriage difficult and infrequent. Examples include the present conflict between Israelis and Palestinians; “racial cleansing” in Kosovo; the devastating wars between Catholics and Protestants in Europe; the Lebanese civil war; genocide committed against Jews and Gypsies during World War II; recent genocide in Rwanda; current intertribal massacres in the Ituri Province of Congo; use of poison gas against Kurdish civilians by Saddam Hussein’s regime in Iraq; the massacre of Armenians by Turks; massacres of Hindus by Muslims and of Muslims by Hindus in post-independence India; massacres of Native Americans by white conquerors and settlers in all parts of the New World; and massacres committed during the Crusades. The list seems almost endless.

Religion often contributes to conflicts by sharpening the boundaries between ethnic groups and by making marriage across those boundaries difficult and infrequent. However, this negative role is balanced by a positive one, whenever religion is the source of ethical principles, especially the principle of universal human brotherhood.

The religious leaders of today’s world have the opportunity to contribute importantly to the solution of the problem of war. They have the opportunity to powerfully support the concept of universal human brotherhood, to build bridges between religious groups, to make intermarriage across ethnic boundaries easier, and to soften the distinctions between communities. If they fail to do this, they will have failed humankind at a time of crisis.

3.6 The mystery of self-sacrifice in war

Warfare involves not only a high degree of aggression, but also an extremely high degree of altruism. Soldiers kill, but they also sacrifice their own lives. Thus patriotism and duty are as essential to war as the willingness to kill.

Tribalism involves passionate attachment to one's own group, self-sacrifice for the sake of the group, willingness both to die and to kill if necessary to defend the group from its enemies, and belief that in case of a conflict, one's own group is always in the right. Unfortunately these emotions make war possible; and today a Third World War might lead to the destruction of civilization.

At first sight, the willingness of humans to die defending their social groups seems hard to explain from the standpoint of Darwinian natural selection. After the heroic death of such a human, he or she will be unable to produce more children, or to care for those already born. Therefore one might at first suppose that natural selection would work strongly to eliminate the trait of self-sacrifice from human nature. However, the theory of population genetics and group selection can explain both the willingness of humans to sacrifice themselves for their own group, and also the terrible aggression that they sometimes exhibit towards competing groups. It can explain both intra-group altruism and inter-group aggression.

3.7 Fischer, Haldane, Hamilton and Wilson

The idea of group selection in evolution was proposed in the 1930's by J.B.S. Haldane and R.A. Fischer, and more recently it has been discussed by W.D. Hamilton and E.O. Wilson.

If we examine altruism and aggression in humans, we notice that members of our species exhibit great altruism towards their own children. Kindness towards close relatives is also characteristic of human behavior, and the closer the biological relationship is between two humans, the greater is the altruism they tend to show towards each other. This profile of altruism is easy to explain on the basis of Darwinian natural selection since two closely related individuals share many genes and, if they cooperate, the genes will be more effectively propagated.

To explain from an evolutionary point of view the communal defense mechanism - the willingness of humans to kill and be killed in defense of their communities - we have only to imagine that our ancestors lived in small tribes and that marriage was likely to take place within a tribe rather than across tribal boundaries. Under these circumstances, each tribe would tend to consist of genetically similar individuals. The tribe itself, rather than the individual, would be the unit on which the evolutionary forces of natural selection would act.

According to the group selection model, a tribe whose members showed altruism towards each other would be more likely to survive than a tribe whose members cooperated less effectively. Since several tribes might be in competition for the same territory, suc-

cessful aggression against a neighboring group could increase the chances for survival of one's own tribe. Thus, on the basis of the group selection model, one would expect humans to be kind and cooperative towards members of their own group, but at the same time to sometimes exhibit aggression towards members of other groups, especially in conflicts over territory. One would also expect intergroup conflicts to be most severe in cases where the boundaries between groups are sharpest - where marriage is forbidden across the boundaries.

3.8 Cooperation in groups of animals and human groups

The social behavior of groups of animals, flocks of birds and communities of social insects involves cooperation as well as rudimentary forms of language. Various forms of language, including chemical signals, postures and vocal signals, are important tools for orchestrating cooperative behavior.

The highly developed language of humans made possible an entirely new form of evolution. In cultural evolution (as opposed to genetic evolution), information is passed between generations not in the form of a genetic code, but in the form of linguistic symbols. With the invention of writing, and later the invention of printing, the speed of human cultural evolution greatly increased. Cooperation is central to this new form of evolution. Cultural advances can be shared by all humans.

3.9 Trading in primitive societies

Although primitive societies engaged in frequent wars, they also cooperated through trade. Peter Watson, an English historian of ideas, believes that long-distance trade took place as early as 150,000 before the present. There is evidence that extensive trade in obsidian and flint took place during the stone age. Evidence for wide ranging prehistoric obsidian and flint trading networks has been found in North America. Ancient burial sites in Southeast Asia show that there too, prehistoric trading took place across very large distances. Analysis of jade jewelry from the Phillipines, Thailand, Maylasia and Vietnam shows that the jade originated in Taiwan.

The invention of writing was prompted by the necessities of trade. In prehistoric Mesopotamia, clay tokens marked with simple symbols were used for accounting as early as 8,000 BC. Often these tokens were kept in clay jars, and symbols on the outside of the jars indicated the contents. About 3,500 BC, the use of such tokens and markings led to the development of pictographic writing in Mesopotamia, and this was soon followed by the cuneiform script, still using soft clay as a medium. The clay tablets were later dried and baked to ensure permanency. The invention of writing led to a great acceleration of human cultural evolution. Since ideas could now be exchanged and preserved with great ease through writing, new advances in technique could be shared by an ever larger cooperating community of humans. Our species became more and more successful as its genius

for cooperation developed.

Early religions tended to be centered on particular tribes, and the ethics associated with them were usually tribal in nature. However, the more cosmopolitan societies that began to form after the Neolithic agricultural revolution required a more universal code of ethics. It is interesting to notice that many of the great ethical teachers of human history, for example Moses, Socrates, Plato, Aristotle, Lao-Tzu, Confucius, Buddha, and Jesus, lived at the time when the change to larger social units was taking place. Tribalism was no longer appropriate. A wider ethic was needed.

Today the size of the social unit is again being enlarged, this time enlarged to include the entire world. Narrow loyalties have become inappropriate and there is an urgent need for a new ethic - a global ethic. Loyalty to one's nation needs to be supplemented by a higher loyalty to humanity as a whole.

3.10 Interdependence in modern human society

The enormous success of humans as a species is due to their genius for cooperation. The success of humans is a success of cultural evolution, a new form of evolution in which information is passed between generations, not in the form of DNA sequences but in the form of speech, writing, printing and finally electronic signals. Cultural evolution is built on cooperation, and has reached great heights of success as the cooperating community has become larger and larger, ultimately including the entire world.

Without large-scale cooperation, modern science would never have evolved. It developed as a consequence of the invention of printing, which allowed painfully gained detailed knowledge to be widely shared. Science derives its great power from concentration. Attention and resources are brought to bear on a limited problem until all aspects of it are understood. It would make no sense to proceed in this way if knowledge were not permanent, and if the results of scientific research were not widely shared. But today the printed word and the electronic word spread the results of research freely to the entire world. The whole human community is the repository of shared knowledge.

The achievements of modern society are achievements of cooperation. We can fly, but no one builds an airplane alone. We can cure diseases, but only through the cooperative efforts of researchers, doctors and medicinal firms. We can photograph and understand distant galaxies, but the ability to do so is built on the efforts of many cooperating individuals. The comfort and well-being that we experience depends on far-away friendly hands and minds, since trade is global, and the exchange of ideas is also global.

3.11 Two sides of human nature

Looking at human nature, both from the standpoint of evolution and from that of everyday experience, we see the two faces of Janus; one face shines radiantly; the other is dark and menacing. Two souls occupy the human breast, one warm and friendly, the other

murderous. Humans have developed a genius for cooperation, the basis for culture and civilization; but they are also capable of genocide; they were capable of massacres during the Crusades, capable of genocidal wars against the Amerinds, capable of the Holocaust, of Hiroshima, of the killing-fields of Cambodia, of Rwanda, and of Darfur

As an example of the two sides of human nature, we can think of Scandinavia. The Vikings were once feared throughout Europe. The Book of Common Prayer in England contains the phrase “Protect us from the fury of the Northmen!”. Today the same people are so peaceful and law-abiding that they can be taken as an example for how we would like a future world to look. Human nature has the possibility for both kinds of behavior depending on the circumstances. This being so, there are strong reasons to enlist the help of education and religion to make the bright side of human nature win over the dark side. Today, the mass media are an important component of education, and thus the mass media have a great responsibility for encouraging the cooperative and constructive side of human nature rather than the dark and destructive side.

3.12 Tribalism and agreed-upon lies

Members of tribelike groups throughout history have marked their identity by adhering to irrational systems of belief. Like the ritual scarification which is sometimes used by primitive tribes as a mark of identity, irrational systems of belief are also a mark of tribal identity. We parade these beliefs to demonstrate that we belong to a special group and that we are proud of it. The more irrational the belief is, the better it serves this purpose. When you and I tell each other that we believe the same nonsense, a bond is forged between us. The worse the nonsense is, the stronger the bond.

Sometimes motives of advantage are mixed in. As the Nobel Laureate biochemist Albert Szent-Györgyi observed, evolution designed the human mind, not for finding truth, but for finding advantage. Within the Orwellian framework of many modern nations, it is extremely disadvantageous to hold the wrong opinions. The wiretappers know what you are thinking.

Also, people often believe what will make them happy. How else can we explain the denial of climate change in the face of massive evidence to the contrary?

But truth has the great virtue that it allows us to accurately predict the future. If we ignore truth because it is unfashionable, or painful, or heretical, the future will catch us unprepared.

3.13 From tribalism to nationalism

70,000 years ago, our hunter-gatherer ancestors lived in tribes. Loyalty to the tribe was natural for our ancestors, as was collective work on tribal projects. Today, at the start of the 21st century, we live in nation-states to which we feel emotions of loyalty very similar to the tribal emotions of our ancestors.

The enlargement of the fundamental political and social unit has been made necessary and possible by improved transportation and communication, and by changes in the techniques of warfare. In Europe, for example, the introduction of canons in warfare made it possible to destroy castles, and thus the power of central monarchs was increased at the expense of feudal barons. At the same time, improved roads made merchants wish to trade freely over larger areas. Printing allowed larger groups of people to read the same books and newspapers, and thus to experience the same emotions. Therefore the size of the geographical unit over which it was possible to establish social and political cohesion became enlarged.

The tragedy of our present situation is that the same forces that made the nation-state replace the tribe as the fundamental political and social unit have continued to operate with constantly-increasing intensity. For this reason, the totally sovereign nation-state has become a dangerous anachronism. Although the world now functions as a single unit because of modern technology, its political structure is based on fragments, on absolutely-sovereign nation states - large compared to tribes, but too small for present-day technology, since they do not include all of mankind. Gross injustices mar today's global economic interdependence, and because of the development of thermonuclear weapons, the continued existence of civilization is threatened by the anarchy that exists today at the international level.

In this chapter, we will discuss nationalism in Europe, and especially the conflicts between absolutely sovereign nation-states that led to the two World Wars. However, it is important to remember that parallel to this story, run others, equally tragic - conflicts in the Middle East, the Vietnam War, the Cuban Missile Crisis, conflicts between India and Pakistan, the Korean War, the two Gulf Wars, and so on. In all of these tragedies, the root the trouble is that international interdependence exists in practice because of modern technology, but our political institutions, emotions and outlook are at the stunted level of the absolutely sovereign nation-state. Although we focus here on German nationalism as an example, and although historically it had terrible consequences, it is not a danger today. Germany is now one of the world's most peaceful and responsible countries, and the threats to world peace now come from nationalism outside Europe.

3.14 Nationalism in Europe

There is no doubt that the founders of nationalism in Europe were idealists; but the movement that they created has already killed more than sixty million people in two world wars, and today it contributes to the threat of a catastrophic third world war.

Nationalism in Europe is an outgrowth of the Enlightenment, the French Revolution, and the Romantic Movement. According to the philosophy of the Enlightenment and the ideas of the French Revolution, no government is legitimate unless it derives its power from the will of the people. Speaking to the Convention of 1792, Danton proclaimed that "by sending us here as deputies, the French Nation has brought into being a grand committee for the general insurrection of peoples."

Since all political power was now believed to be vested in the “nation”, the question of national identity suddenly became acutely important. France itself was a conglomeration of peoples - Normans, Bretons, Provencaux, Burgundians, Flemings, Germans, Basques, and Catalans - but these peoples had been united under a strong central government since the middle ages, and by the time of the French Revolution it was easy for them to think of themselves as a “nation”. However, what we now call Germany did not exist. There was only a collection of small feudal principalities, in some of which the most common language was German.

The early political unity of France enabled French culture to dominate Europe during the 17th and 18th centuries. Frederick the Great of Prussia and his court spoke and wrote in French. Frederick himself regarded German as a language of ignorant peasants, and on the rare occasions when he tried to speak or write in German, the result was almost incomprehensible. The same was true in the courts of Brandenburg, Saxony, Pomerania, etc. Each of them was a small-scale Versailles. Below the French-speaking aristocracy was a German-speaking middle class and a German or Slavic-speaking peasantry.

The creators of the nationalist movement in Germany were young middle-class German-speaking students and theologians who felt frustrated and stifled by the narrow *kleinstädtisch* provincial atmosphere of the small principalities in which they lived. They also felt frustrated because their talents were completely ignored by the French-speaking aristocracy. This was the situation when the armies of Napoleon marched across Europe, easily defeating and humiliating both Prussia and Austria. The young German-speaking students asked themselves what it was that the French had that they did not have.

The answer was not hard to find. What the French had was a sense of national identity. In fact, the French Revolution had unleashed long-dormant tribal instincts in the common people of France. It was the fanatical support of the Marseillaise-singing masses that made the French armies invincible. The founders of the German nationalist movement concluded that if they were ever to have a chance of defeating France, they would have to inspire the same fanaticism in their own peoples. They would have to touch the same almost-forgotten cord of human nature that the French Revolution had touched.

The common soldiers who fought in the wars of Europe in the first part of the 18th century were not emotionally involved. They were recruited from the lowest ranks of society, and they joined the army of a king or prince for the sake of money. All this was changed by the French Revolution. In June, 1792, the French Legislative Assembly decreed that a Fatherland Alter be erected in each commune with the inscription, “The citizen is born, lives and dies for *la patrie*.” The idea of a “Fatherland Alter” clearly demonstrates the quasi-religious nature of French nationalism.

The soldiers in Napoleon’s army were not fighting for the sake of money, but for an ideal that they felt to be larger and more important than themselves - Republicanism and the glory of France. The masses, who for so long had been outside of the politics of a larger world, and who had been emotionally involved only in the affairs of their own village, were now fully aroused to large-scale political action. The surge of nationalist feeling in France was tribalism on an enormous scale - tribalism amplified and orchestrated by new means of mass communication.



Figure 3.9: A portrait of Napoleon (as he liked to see himself).



Figure 3.10: **A romantic figure representing Germany**

This was the phenomenon with which the German nationalists felt they had to contend.

One of the founders of the German nationalist movement was Johan Gottlieb Fichte (1762-1814), a follower of the philosopher Immanuel Kant (1724-1804). Besides rejecting objective criteria for morality, Fichte denied the value of the individual. According to him, the individual is nothing and the state is everything. Denying the value of the individual, Fichte compared the state to an organism of which the individual is a part:

“In a product of nature”, Fichte wrote, “no part is what it is but through its relation to the whole, and it would absolutely not be what it is apart from this relation; more, if it had no organic relation at all, it would be absolutely nothing, since without reciprocity in action between organic forces maintaining one another in equilibrium, no form would subsist... Similarly, man obtains a determinate position in the scheme of things and a fixity in nature only through his civil association... Between the isolated man and the citizen there is the same relation as between raw and organized matter... In an organized body, each part continuously maintains the whole, and in maintaining it, maintains itself also. Similarly the citizen with regard to the State.”

Another post-Kantian, Adam Müller (1779-1829) wrote that “the state is the intimate association of all physical and spiritual needs of the whole nation into one great, energetic, infinitely active and living whole... the totality of human affairs... If we exclude for ever from this association even the most unimportant part of a human being, if we separate private life from public life even at one point, then we no longer perceive the State as a phenomenon of life and as an idea.”

The doctrine that Adam Müller sets forth in this passage is what we now call Totali-

tarianism, i.e. the belief that the state ought to encompass “the totality of human affairs”. This doctrine is the opposite of the Liberal belief that the individual is all-important and that the role of the state ought to be as small as possible.

Fichte maintains that “a State which constantly seeks to increase its internal strength is forced to desire the gradual abolition of all favoritisms, and the establishment of equal rights for all citizens, in order that it, the State itself, may enter upon its own true right - to apply the whole surplus power of all its citizens without exception to the furtherance of its own purposes... Internal peace, and the condition of affairs in which everyone may by diligence earn his daily bread... is only a means, a condition and framework for what love of Fatherland really wants to bring about, namely that the Eternal and the Divine may blossom in the world and never cease to become more pure, perfect and excellent.”

Fichte proposed a new system of education which would abolish the individual will and teach individuals to become subservient to the will of the state. “The new education must consist essentially in this”, Fichte wrote, “that it completely destroys the will in the soil that it undertakes to cultivate... If you want to influence a man at all, you must do more than merely talk to him; you must fashion him, and fashion him, and fashion him in such a way that he simply cannot will otherwise than you wish him to will.”

Fichte and Herder (1744-1803) developed the idea that language is the key to national identity. They believed that the German language is superior to French because it is an “original” language, not derived from Latin. In a poem that is obviously a protest against the French culture of Frederick’s court in Prussia, Herder wrote:

“Look at other nationalities!
Do they wander about
So that nowhere in the world they are strangers
Except to themselves?
They regard foreign countries with proud disdain.
And you, German, alone, returning from abroad,
Wouldst greet your mother in French?
Oh spew it out before your door!
Spew out the ugly slime of the Seine!
Speak German, O you German!

Another poem, “The German Fatherland”, by Ernst Moritz Arndt (1769-1860), expresses a similar sentiment:

“What is the Fatherland of the German?
 Name me the great country!
 Where the German tongue sounds
 And sings *Lieder* in God’s praise,
 That’s what it ought to be
 Call that thine, valiant German!
 That is the Fatherland of the German,
 Where anger roots out foreign nonsense,
 Where every Frenchman is called enemy,
 Where every German is called friend,
 That’s what it ought to be!
 It ought to be the whole of Germany!”

It must be remembered that when these poems were written, the German nation did not exist except in the minds of the nationalists. Groups of people speaking various dialects of German were scattered throughout central and eastern Europe. In many places, the German-speaking population was a minority. To bring together these scattered German-speaking groups would require, in many cases, the conquest and subjugation of Slavic majorities; but the quasi-religious fervor of the nationalists was such that aggression took on the appearance of a “holy war”. Fichte believed that war between states introduces “a living and progressive principle into history”. By war he did not mean a decorous limited war of the type fought in the 18th century, but “...a true and proper war - *a war of subjugation!*”

The German nationalist movement was not only quasi-religious in its tone; it also borrowed psychological techniques from religion. It aroused the emotions of the masses to large-scale political activity by the use of semi-religious political liturgy, involving myth, symbolism, and festivals. In his book “German Society” (1814), Arndt advocated the celebration of “holy festivals”. For example, he thought that the celebration of the pagan festival of the summer solstice could be combined with a celebration of the victory over Napoleon at the Battle of Leipzig.

Arndt believed that special attention should be given to commemoration of the “noble dead” of Germany’s wars for, as he said, “...here history enters life, and life becomes part of history”. Arndt advocated a combination of Christian and pagan symbolism. The festivals should begin with prayers and a church service; but in addition, the Oak leaves and the sacred flame of ancient pagan tradition were to play a part.

In 1815, many of Arndt’s suggestions were followed in the celebration of the anniversary of the Battle of Leipzig. This festival clearly exhibited a mixing of secular and Christian elements to form a national cult. Men and women decorated with oak leaves made pilgrimages to the tops of mountains, where they were addressed by priests speaking in front of altars on which burned “the sacred flame of Germany’s salvation”. This borrowing of psychological techniques from religion was deliberate, and it was retained by the Nazi Party when the latter adopted the methods of the early German nationalists. The Nazi mass rallies retained the order and form of Protestant liturgy, including hymns, confessions of



Figure 3.11: Celebration of the “German May” at Hambrach Castle

faith, and responses between the leader and the congregation.⁵

In 1832, the first mass meeting in German history took place, when 32,000 men and women gathered to celebrate the “German May”. Singing songs, wearing black, red, and gold emblems, and carrying flags, they marched to Hambrach Castle, where they were addressed by their leaders.

By the 1860’s the festivals celebrating the cult of nationalism had acquired a definite form. Processions through a town, involving elaborate national symbolism, were followed by unison singing by men’s choirs, patriotic plays, displays by gymnasts and sharpshooters, and sporting events. The male choirs, gymnasts and sharpshooters were required to wear uniforms; and the others attending the festivals wore oak leaves in their caps. The cohesion of the crowd was achieved not only by uniformity of dress, but also by the space in which the crowd was contained. Arndt advocated the use of a “sacred space” for mass meetings. The idea of the “sacred space” was taken from Stonehenge, which was seen by the nationalists as a typical ancient Germanic meeting place. The Nazi art historian Hubert Schrade wrote: “The space which urges us to join the community of the *Volk* is of greater importance than the figure which is meant to represent the Fatherland.”

Dramas were also used to promote a feeling of cohesion and national identity. An example of this type of propagandist drama is Kleist’s play, “Hermann’s Battle”, (1808). The play deals with a Germanic chieftain who, in order to rally the tribes against the Romans, sends his own men, disguised as Roman soldiers, to commit atrocities in the neighboring German villages. At one point in the play, Hermann is told of a Roman soldier

⁵ The Nazi sacred symbols and the concept of the swastika or “gamma cross”, the eagle, the red/black/white color scheme, the ancient Nordic runes (one of which became the symbol of the SS), were all adopted from esoteric traditions going back centuries, shared by Brahmins, Scottish Masons, Rosicrucians, the Knights Templars and other esoteric societies.

who risked his own life to save a German child in a burning house. Hearing this report, Hermann exclaims, “May he be cursed if he has done this! He has for a moment made my heart disloyal; he has made me for a moment betray the august cause of Germany!... I was counting, by all the gods of revenge, on fire, loot, violence, murder, and all the horrors of unbridled war! What need have I of Latins who use me well?”

At another point in the play, Hermann’s wife, Thusnelda, tempts a Roman Legate into a romantic meeting in a garden. Instead of finding Thusnelda, the Legate finds himself locked in the garden with a starved and savage she-bear. Standing outside the gate, Thusnelda urges the Legate to make love to the she-bear, and, as the bear tears him to pieces, she faints with pleasure.

Richard Wagner’s dramas were also part of the nationalist movement. They were designed to create “an unending dream of sacred *völkisch* revelation”. No applause was permitted, since this would disturb the reverential atmosphere of the cult. A new type of choral theater was developed which “...no longer represented the fate of the individual to the audience, but that which concerns the community, the *Volk*... Thus, in contrast to the bourgeois theater, private persons are no longer represented, but only types.”

We have primarily been discussing the growth of German nationalism, but very similar movements developed in other countries throughout Europe and throughout the world. Characteristic for all these movements was the growth of state power, and the development of a reverential, quasi-religious, attitude towards the state. Patriotism became “a sacred duty.” According to Georg Wilhelm Fredrich Hegel, “The existence of the State is the movement of God in the world. It is the ultimate power on earth; it is its own end and object. It is an ultimate end that has absolute rights against the individual.”

Nationalism in England (as in Germany) was to a large extent a defensive response against French nationalism. At the end of the 18th century, the liberal ideas of the Enlightenment were widespread in England. There was much sympathy in England with the aims of the French Revolution, and a similar revolution almost took place in England. However, when Napoleon landed an army in Ireland and threatened to invade England, there was a strong reaction towards national self-defense. The war against France gave impetus to nationalism in England, and military heroes like Wellington and Nelson became objects of quasi-religious worship. British nationalism later found an outlet in colonialism.

Italy, like Germany, had been a collection of small principalities, but as a reaction to the other nationalist movements sweeping across Europe, a movement for a united Italy developed. The conflicts between the various nationalist movements of Europe produced the frightful world wars of the 20th century. Indeed, the shot that signaled the outbreak of World War I was fired by a Serbian nationalist.

War did not seem especially evil to the 18th and 19th century nationalists because technology had not yet given humanity the terrible weapons of the 20th century. In the 19th century, the fatal combination of space-age science and stone-age politics still lay in the future. However, even in 1834, the German writer Heinrich Heine was perceptive enough to see the threat:

“There will be”, Heine wrote, “Kantians forthcoming who, in the world to come, will



Figure 3.12: Wagner's dramas were part of the quasi-religious cult of German nationalism

know nothing of reverence for aught, and who will ravage without mercy, and riot with sword and axe through the soil of all European life to dig out the last root of the past. There will be well-weaponed Fichtians upon the ground, who in the fanaticism of the Will are not restrained by fear or self-advantage, for they live in the Spirit.”

3.15 The two world wars

In 1870, the fiercely nationalistic Prussian Chancellor, Otto von Bismark, won revenge for the humiliations which his country had suffered under Napoleon Bonaparte. In a lightning campaign, Prussia's modern army overran France and took Emperor Napoleon III prisoner. The victorious Prussians demanded from France not only the payment of a huge sum of money - five billion francs - but also the annexation of the French provinces of Alsace and Lorraine. In 1871, Kaiser Wilhelm I was proclaimed Emperor of all Germany in the Hall of Mirrors at Versailles. The dreams of the German nationalists had been realized! The small German-speaking states of central Europe were now united into a powerful nation dominated by Prussia.

Bismark had provoked a number of wars in order to achieve his aim - the unification of Germany under Prussia; but after 1871 he strove for peace, fearing that war would harm his new creation. “I am bored”, Bismark remarked to his friends, “The great things are done. The German Reich is made.”

In order to preserve the status quo in Europe, Bismark now made alliances not only with Austria-Hungary and Italy, but also with Russia. To make alliances with both Austria-Hungary and Russia required considerable diplomatic skill, since the two empires were enemies - rivals for influence in the Balkan Peninsula. Several small Balkan states had broken away from the decaying Turkish Empire. Both the Hapsburg Emperors and the Romanoff Czars were anxious to dominate these small states. However, nationalist emotions were even more frenzied in the Balkans than they were elsewhere in Europe. Nationalism was a cause for which 19th century Europeans were willing to kill each other, just as three centuries earlier they had been willing to kill each other over their religious differences.

Serbia was an independent state, but the fanatical Serbian nationalists were far from satisfied. Their real aim was to create an independent Pan-Serbia (or Yugoslavia) which would include all the Slavic parts of Austria-Hungary. Thus, at the turn of the century, the Balkans were a trouble spot, much as the Middle East is a trouble spot today.

Kaiser Wilhelm I was a stable monarch, but in 1888 he died and the German throne passed to his son, Frederick III, who was incurably ill with cancer of the throat. After reigning only 90 days, Frederick also died, and his 29 year old son became the new German Emperor - Kaiser Wilhelm II. Wilhelm II had been born with a withered arm, and as a boy he had been constantly told that he must become a great warrior. His adult behavior sometimes showed tendencies towards both paranoia and megalomania.

In 1890, Wilhelm dismissed Otto von Bismark (“dropping the pilot”). Bismark was now on the side of peace, and he might have guided Germany safely through the troubled waters of European politics if he had been allowed to continue; but Wilhelm wanted to



Figure 3.13: **Otto von Bismarck**

play Bismarck himself.

Wilhelm's first act was to break off Germany's alliance with Russia. Czar Alexander III, against his principles, then formed an alliance with republican France. Realizing that he had blundered, Wilhelm tried to patch up relations with the Czar, but it was too late. Europe was now divided into two armed camps - Germany, Austria-Hungary and Italy, opposed by Russia and France.

Wilhelm's government then began to build a huge modern navy, much to the consternation of the English. The government of England felt that it was necessary for their country to have control of the sea, since England was a densely-populated island, dependent on imports of food. It was not only with respect to naval power that England felt threatened: After being united in 1871, Germany had undergone an industrial revolution; and German industries were pouring out steel and high-quality manufactured goods that threatened England's dominance of world trade. Commercial and naval competition with the rising German Empire drove England into an informal alliance with Russia and France - the Triple Entente.

Meanwhile the situation in the Balkans became increasingly troubled, and at the end of July, 1914, the Austrian Foreign Minister, Count Brechtold, used the assassination of Archduke Francis Ferdinand and his wife as a pretext for crushing the Serbian Pan-Slavic movement. Russia mobilized against Austria in defense of the Serbs, and the Austrian government interpreted the mobilization as a declaration of war. Germany was linked to Austria by an alliance, while France was linked to Russia. In this way, both France and

Russia were drawn into the conflict.

On August 2, Wilhelm demanded free passage of German troops through Belgium. The Belgians refused. They gave warning that an invasion would be resisted, and they appealed to England for support of their country's neutrality. On August 4, Britain sent an ultimatum to the Kaiser: Unless he halted the invasion of Belgium, Britain would enter the war. The invasion of Belgium rolled on. It was now too late to stop the great death-machine, and as it gained momentum, Sir Edward Grey spoke the sad and prophetic words. "The lamps are going out all over Europe; we shall not see them lit again in our lifetime."

None of the people who started the First World War had the slightest idea what it would be like. The armies of Europe were dominated by the old feudal landowning class, whose warlike traditions were rooted in the Middle Ages. The counts and barons who still ruled Europe's diplomatic and military establishments knew how to drink champaign, dance elegantly, ride horses, and seduce women. They pranced off to war in high spirits, the gold on their colorful uniforms glittering in the sunshine, full of expectations of romantic cavalry charges, kisses stolen from pretty girls in captured villages, decorations, glory and promotion, like characters in "The Chocolate Soldier" or "Die Fledermaus". The romantic dreams of glory of every small boy who ever played with toy soldiers were about to become a thrilling reality!

But the war, when it came, was not like that. Technology had taken over. The railroads, the telegraph, high explosives and the machine gun had changed everything. The opposing armies, called up by means of the telegraph and massed by means of the railroads, were the largest ever assembled up to that time in the history of the world. In France alone, between August 2 and August 18, 1914, the railway system transported 3,781,000 people under military orders. Across Europe, the railways hurled more than six million highly armed men into collision with each other. Nothing on that scale had ever happened before, and no one had any idea of what it would be like.

At first the Schlieffen Plan seemed to be working perfectly. When Kaiser Wilhelm had sent his troops into battle, he had told them: "You will be home before the leaves are off the trees", and at first it seemed that his prediction would be fulfilled. However, the machine gun had changed the character of war. Attacking infantry could be cut down in heaps by defending machine gunners. The war came to a stalemate, since defense had an advantage over attack.

On the western front, the opposing armies dug lines of trenches stretching from the Atlantic to the Swiss border. The two lines of trenches were separated by a tangled mass of barbed wire. Periodically the generals on one side or the other would order their armies to break through the opposing line. They would bring forward several thousand artillery pieces, fire a million or so high explosive shells to cut the barbed wire and to kill as many as possible of the defenders, and then order their men to attack. The soldiers had to climb out of the trenches and struggle forward into the smoke. There was nothing else for them to do. If they disobeyed orders, they would be court-martialed and shot as deserters. They were driven forward and slaughtered in futile attacks, none of which gained anything. Their leaders had failed them. Civilization had failed them. There was nothing for them to do



but to die, to be driven forward into the poison gas and barbed wire and to be scythed down by machine gun fire, for nothing, for the ambition, vanity and stupidity of their rulers.

At the battle of Verdun, 700,000 young men were butchered in this way, and at the battle of Somme, 1,100,000 young lives were wasted. On the German side, the soldiers sang “Lili Marlein” - “She waits for a boy who’s far away...” and on the other side, British and American soldiers sang:

“There’s a long long trail a-winding
 into the land of my dreams
 where the nightingale is singing
 and the pale moon beams.
 There’s a long long night of waiting
 until my dreams all come true,
 ’til the day that I’ll be going
 down that long long trail with you.”

For millions of Europe’s young men, the long, long trail lead only to death in the mud and smoke; and for millions of mothers and sweethearts waiting at home, dreams of the future were shattered by a telegram announcing the death of the boy for whom they were waiting.

When the war ended four years later, ten million young men had been killed and twenty million wounded, of whom six million were crippled for life. The war had cost 350,000,000,000 1919 dollars. This was a calculable cost; but the cost in human suffering and brutalization of values was incalculable. It hardly mattered whose fault the catastrophe had been. Perhaps the Austrian government had been more to blame than any other. But

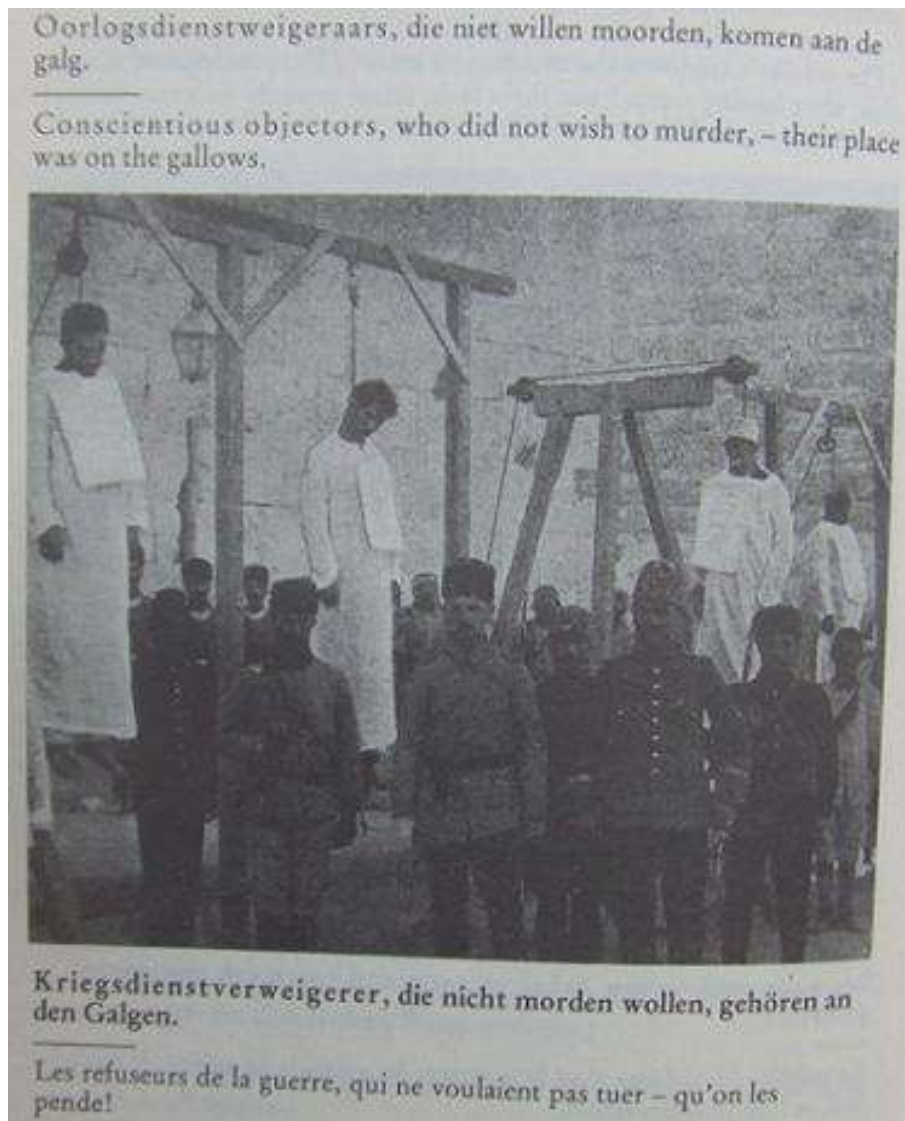


Figure 3.14: The fate of conscientious objectors.



Figure 3.15: World War I casualties.

blame for the war certainly did not rest with the Austrian people nor with the young Austrians who had been forced to fight. However, the tragedy of the First World War was that it created long-lasting hatred between the nations involved; and in this way it led, only twenty years later, to an even more catastrophic global war.

The First World War brought about the downfall of four emperors: the Russian Czar, the Turkish Sultan, the Austro-Hungarian Emperor and the German Kaiser. The decaying and unjust Czarist government had for several years been threatened by revolution; and the horrors of the war into which the Czar had led his people were enough to turn them decisively against his government. During 1915 alone, Russia lost more than two million men, either killed or captured. Finally the Russian soldiers refused to be driven into battle and began to shoot their officers. In February, 1917, the Czar abdicated; and on December 5, 1917, the new communist government of Russia signed an armistice with Germany.

The German Chief of Staff, General Ludendorff, then shifted all his troops to the west in an all-out offensive. In March, 1918, he threw his entire army into a gigantic offensive which he called "the Emperor's Battle". The German army drove forward, and by June they were again on the Marne, only 50 miles from Paris. However, the Allies counterattacked, strengthened by the first American troops, and using, for the first time, large numbers of tanks. The Germans fell back, and by September they had lost more than a million men in six months. Morale in the retreating German army was falling rapidly, and fresh American troops were landing in France at the rate of 250,000 per month. Ludendorff realized that the German cause was hopeless and that if peace were not made quickly, a communist revolution would take place in Germany just as it had in Russia.

The old feudal Prussian military caste, having led Germany into disaster, now unloaded responsibility onto the liberals. Ludendorff advised the Kaiser to abdicate, and a liberal leader, Prince Max of Baden, was found to head the new government. On November 9, 1918, Germany was proclaimed a republic. Two days later, an armistice was signed and the fighting stopped.

During the last years of the war the world, weary of the politics of power and nationalist greed, had looked with hope towards the idealism of the American President, Woodrow Wilson. He had proposed a "peace without victory" based on his famous Fourteen Points". Wilson himself considered that the most important of his Fourteen Points was the last one, which specified that "A general association of nations must be formed... for the purpose of affording mutual guaranties of political independence and territorial integrity of great and small states alike."

When Wilson arrived in Europe to attend the peace conference in Paris, he was wildly cheered by crowds of ordinary people, who saw in his idealism new hope for the world. Unfortunately, the hatred produced by four years of horrible warfare was now too great to be overcome. At the peace conference, the aged nationalist Georges Clemenceau was unswerving in his deep hatred of Germany. France had suffered greatly during the war. Half of all French males who had been between the ages of 20 and 32 in 1914 had been killed; much of the French countryside had been devastated; and the retreating German armies had destroyed the French coal mines. Clemenceau was determined to extract both revenge and financial compensation from the Germans.

In the end, the peace treaty was a compromise. Wilson was given his dream, the League of Nations; and Clemenceau was given the extremely harsh terms which he insisted should be imposed on Germany. By signing the treaty, Germany would be forced to acknowledge sole responsibility for having caused the war; it would be forced to hand over the Kaiser and other leaders to be tried as war criminals; to pay for all civilian damage during the war; to agree to internationalization of all German rivers and the Kiel Canal; to give France, Belgium and Italy 25 million tons of coal annually as part of the reparations payments; to surrender the coal mines in Alsace-Lorraine to France; to give up all foreign colonies; to lose all property owned by Germans abroad; and to agree to Allied occupation of the Rhineland for fifteen years.

The loss of coal, in particular, was a death-blow aimed at German industry. Reading the terms of the treaty, the German Chancellor cried: "May the hand wither that signs such a peace!" The German Foreign Minister, Count Ulrich von Brockendorff-Rantzau, refused to sign, and the German government made public the terms of the treaty which it had been offered.

French newspapers picked up the information, and at 4 a.m. one morning, a messenger knocked at the door of the Paris hotel room where Herbert Hoover (the American war relief administrator) was staying, and handed him a copy of the terms. Hoover was so upset that he could sleep no more that night. He dressed and went out into the almost deserted Paris streets, pacing up and down, trying to calm himself. "It seemed to me", Hoover wrote later, "that the economic consequences alone would pull down all Europe and thus injure the United States." By chance, Hoover met the British economist, John Maynard Keynes, who was walking with General Jan Smuts in the pre-dawn Paris streets. Both of them had received transcripts of the terms offered to Germany, and both were similarly upset. "We agreed that it was terrible", Hoover wrote later, "and we agreed that we would do what we could... to make the dangers clear."

In the end, continuation of the blockade forced the Germans to sign the treaty; but they did so with deeply-felt bitterness. Describing the signing of the Versailles treaty on June 28, 1919, a member of the American delegation wrote: "It was not unlike when in olden times the conqueror dragged the conquered at his chariot wheel."

While he participated in the peace negotiations, Wilson had been absent from the United States for six months. During that time, Wilson's Democratic Party had been without its leader, and his Republican opponents made the most of the opportunity. Republican majorities had been returned in both the House of Representatives and the Senate. When Wilson placed the peace treaty before the Senate, the Senate refused to ratify it. Wilson desperately wanted America to join the League of Nations, and he took his case to the American people. He traveled 8,000 miles and delivered 36 major speeches, together with scores of informal talks urging support for the League. Suddenly, in the middle of this campaign, he was struck with a cerebral thrombosis from which he never recovered.

Without Wilson's leadership, the campaign collapsed. The American Senate for a second time rejected the peace treaty, and with it the League of Nations. Without American participation, the League was greatly handicapped. It had many successes, especially in cultural and humanitarian projects and in settling disputes between small nations; but



Figure 3.16: **Hitler addresses a rally at Dortmund in 1932**

it soon became clear that the League of Nations was not able to settle disputes between major powers.

Postwar Germany was in a state of chaos - its economy in ruins. The nation was now a republic, with its capital in Weimar, but this first experiment in German democracy was not running smoothly. Many parts of the country, especially Bavaria, were swarming with secret societies led by former officers of the German army. They blamed the republican government for the economic chaos and for signing a disgraceful peace treaty. The “war guilt” clause of the treaty especially offended the German sense of honor.

In 1920 a group of nationalist and monarchist army officers led by General Ludendorff staged an army revolt or “Putsch”. They forcibly replaced the elected officials of the Weimar Republic by a puppet head of state named Dr. Kapp. However, the republic was saved by the workers of Berlin, who turned off the public utilities.

After the failure of the “Kapp Putsch”, Ludendorff went to Bavaria, where he met Adolf Hitler, a member of a small secret society called the National Socialist German Workers Party. (The name was abbreviated as “Nazi” after the German pronunciation of the first two syllables of “National”). Together, Ludendorff and Hitler began to plot another “Putsch”.

In 1921, the Reparations Commission fixed the amount that Germany would have to pay at 135,000,000,000 gold marks. Various western economists realized that this amount was far more than Germany would be able to pay; and in fact, French efforts to collect it proved futile. Therefore France sent army units to occupy industrial areas of the Ruhr in order to extract payment in kind. The German workers responded by sitting down at their jobs. Their salaries were paid by the Weimar government, which printed more and more paper money. The printing presses ran day and night, flooding Germany with worthless currency. By 1923, inflation had reached such ruinous proportions that baskets full of money were required to buy a loaf of bread. At one point, four trillion paper marks



Figure 3.17: A portrait of Adolf Hitler

were equal to one dollar. This catastrophic inflation reduced the German middle class to poverty and destroyed its faith in the orderly working of society.

The Nazi Party had only seven members when Adolf Hitler joined it in 1919. By 1923, because of the desperation caused by economic chaos, it had grown to 70,000 members. On November 8, 1923, there was a meeting of nationalists and monarchists at the Bürgerbräu beer hall in Munich. The Bavarian State Commissioner, Dr. Gustav von Kahr, gave a speech denouncing the Weimar Republic. He added, however, that the time was not yet ripe for armed revolt.

In the middle of Kahr's speech, Adolf Hitler leaped to the podium. Firing two revolver bullets into the ceiling Hitler screamed that the revolution was on - it would begin immediately! He ordered his armed troopers to bar the exits, and he went from one Bavarian leader to the other, weeping with excitement, a beer stein in one hand and a revolver in the other, pleading with them to support the revolution. At this point, the figure of

General Ludendorff suddenly appeared. In full uniform, and wearing all his medals, he added his pleading to that of Hitler. The Bavarian leaders appeared to yield to Hitler and Ludendorff; and that night the Nazis went into action. Wild disorder reigned in Munich. Republican newspapers and trade union offices were smashed, Jewish homes were raided, and an attempt was made to seize the railway station and the post office. However, units of policemen and soldiers were forming to resist the Nazis. Hitler realized that the Bavarian government officials under Kahr had only pretended to go along with the revolution in order to escape from the armed troopers in the beer hall.

At dawn, Hitler grouped his followers together for a parade to show their strength and to intimidate opposition. With swastika flags flying, the Nazis marched to the main square of Munich. There they met troops of Bavarian government soldiers and policemen massed in force. A volley of shots rang out, and 18 Nazis fell dead. Many other Nazis were wounded, and the remainder scattered. Hitler broke his shoulder diving for the pavement. Only General Ludendorff remained standing where he was. The half-demented old soldier, who had exercised almost dictatorial power over Germany during the last years of the war, marched straight for the Bavarian government troops. They stepped aside and let him pass.

Adolf Hitler was arrested and sentenced to five years in prison. After serving less than a year of his sentence, he was released. He had used the time in prison to write a book, *Mein Kampf*.

3.16 Lessons from the First World War

We have recently marked the 100th anniversary of the outbreak of the First World War. It is important for society to look back at this catastrophic event, which still casts a dark shadow over the future of human civilization. We must learn the bitter lessons which it has to teach us, in order to avoid a repetition of the disaster.

As we have seen, World War I had its roots in the fanatical and quasi-religious nationalist movements that developed in Europe during the 19th century. Nationalism is still a potent force in today's world, but in an era of all-destroying weapons, instantaneous worldwide communication, and global economic interdependence, fanatical nationalism has become a dangerous anachronism. Of course, we should continue to be loyal to our families, our local groups and our nations. But this must be supplemented by a wider loyalty to the human race as a whole.

Hearing Beethoven's 9th Symphony, with Schiller's words, most of us experience a feeling that resembles patriotism, but is broader: "All men are brothers!" Not just some, but all. The choral movement of the symphony is like a national anthem of humanity. All humans are brothers and sisters! All!

All nations and races have contributed to the great monument of human civilization. It is a treasure that we all hold in common. We must join hands and work together for our common future. Human unity has become more and more essential, because of the serious problems that we are facing, for example climate change, vanishing resources, and

threats to food security. The problems are soluble, but only within a framework of peace and cooperation.

Secondly, we can remember that the First World War started as a small operation by the Austrian government to punish the Serbian nationalists; but it escalated uncontrollably into a global disaster. Today, there are many parallel situations, where uncontrollable escalation might produce a world-destroying conflagration.

Israel's Prime Minister, Benjamin Netanyahu has frequently stated that, with or without US backing, Israel intends to bomb Iran, an act that would be not only criminal but also insane. Why criminal? Because it would violate both the UN Charter and the Nuremberg Principles. Why insane? Because the Middle East is already a deeply troubled region, and a military attack on Iran could escalate uncontrollably into a general war in the Middle East. Perhaps it could even escalate into World War III. Netanyahu has told the people of Israel that the attack would involve only about 500 Israeli deaths and that it would be over in a month. One is reminded of Kaiser Wilhelm's words to his departing troops: "You will be home before the leaves are off the trees!"

In general, aggressive interventions, in Syria, Ukraine, the Korean Peninsula and elsewhere, all present dangers for uncontrollable escalation into large and disastrous conflicts, which might potentially threaten the survival of human civilization.

Another lesson from the history of World War I comes from the fact that none of the people who started it had the slightest idea of what it would be like. Science and technology had changed the character of war. The politicians and military figures of the time ought to have known this, but they didn't. They ought to have known it from the million casualties produced by the use of the breach-loading rifle in the American Civil War. They ought to have known it from the deadly effectiveness of the Maxim machine gun against the native populations of Africa, but the effects of the machine gun in a European war caught them by surprise.

Today, science and technology have again changed the character of war beyond all recognition. In the words of the Nobel Laureate biochemist, Albert Szent-Györgyi, "The story of man consists of two parts, divided by the appearance of modern science.... In the first period, man lived in the world in which his species was born and to which his senses were adapted. In the second, man stepped into a new, cosmic world to which he was a complete stranger....The forces at man's disposal were no longer terrestrial forces, of human dimension, but were cosmic forces, the forces which shaped the universe. The few hundred Fahrenheit degrees of our flimsy terrestrial fires were exchanged for the ten million degrees of the atomic reactions which heat the sun....Man lives in a new cosmic world for which he was not made. His survival depends on how well and how fast he can adapt himself to it, rebuilding all his ideas, all his social and political institutions."

Few politicians or military figures today have any imaginative understanding of what a war with thermonuclear weapons would be like. Recent studies have shown that in a nuclear war, the smoke from firestorms in burning cities would rise to the stratosphere where it would remain for a decade, spreading throughout the world, blocking sunlight, blocking the hydrological cycle and destroying the ozone layer. The effect on global agriculture would be devastating, and the billion people who are chronically undernourished today would be

at risk. Furthermore, the tragedies of Chernobyl and Fukushima remind us that a nuclear war would make large areas of the world permanently uninhabitable because of radioactive contamination. A full-scale thermonuclear war would destroy human civilization and much of the biosphere.

Finally, we must remember the role of the arms race in the origin of World War I, and ask what parallels we can find in today's world. England was the first nation to complete the first stages of the Industrial Revolution. Industrialism and colonialism are linked, and consequently England obtained an extensive colonial empire. In Germany, the Industrial Revolution occurred somewhat later. However, by the late 19th century, Germany had surpassed England in steel production, and, particularly at the huge Krupp plants in Essen, Germany was turning to weapons production. The Germans felt frustrated because by that time there were fewer opportunities for the acquisition of colonies.

According to the historian David Stevensen (1954 -), writing on the causes of World War I, "A self-reinforcing cycle of heightened military preparedness... was an essential element in the conjuncture that led to disaster... The armaments race... was a necessary precondition for the outbreak of hostilities."

Today, the seemingly endless conflicts that threaten to destroy our beautiful world are driven by what has been called "The Devil's Dynamo". In many of the larger nations of the world a military-industrial complex seems to have enormous power. Each year the world spends roughly 1,700,000,000.000 US dollars on armaments, almost 2 trillion. This vast river of money, almost too large to be imagined, pours into the pockets of weapons manufacturers, and is used by them to control governments. This is the reason for the seemingly endless cycle of threats to peace with which the ordinary people of the world are confronted. Threats are needed to justify the diversion of such enormous quantities of money from urgently needed social projects into the bottomless pit of war.

3.17 What is to be done?

No single person can achieve the changes that we need, but together we can do it. The problem of building a stable, just, and war-free world is difficult, but it is not impossible. The large regions of our present-day world within which war has been eliminated can serve as models. There are a number of large countries with heterogeneous populations within which it has been possible to achieve internal peace and social cohesion, and if this is possible within such extremely large regions, it must also be possible globally.

In the long run, the survival of human civilization can only be ensured by abolition of the institution of war.

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Chapter 4

HITLER: A BULWARK AGAINST SOCIALISM

4.1 Krupp, Thyssen and Germany's steel industry

The Krupp family business, known as Friedrich Krupp AG, was the largest company in Europe at the beginning of the 20th century. It was important to weapons development and production in both world wars. One of the most powerful dynasties in European history, for 400 years Krupp flourished as the premier weapons manufacturer for Germany. From the Thirty Years' War until the end of the Second World War, they produced everything from battleships, U-boats, tanks, howitzers, guns, utilities, and hundreds of other commodities.

The Thyssen family similarly profited from the arms races prior to World War I and World War II. August Thyssen (1842-1925) founded a large iron and steel company in the Ruhr district of Germany, and was succeeded by his son Fritz Thyssen, who greatly aided Hitler's rise to power.

4.2 Colonialism and the outbreak of the First World War

The First World War broke out approximately 100 years ago, and much thought has been given to the causes of this tragic event, whose consequences continue to cast a dark shadow over the human future. When the war ended four years later, ten million young men had been killed and twenty million wounded, of whom six million were crippled for life. The war had cost 350,000,000,000 1919 dollars. This was a calculable cost; but the cost in human suffering and brutalization of values was incalculable.

It hardly mattered whose fault the catastrophe had been. Perhaps the Austrian government had been more to blame than any other. But blame for the war certainly did not rest with the Austrian people nor with the young Austrians who had been forced to



Figure 4.1: Map of European colonies in Africa in 1914, just before the First World War. Source: www.createdebate.com

fight. However, the tragedy of the First World War was that it created long-lasting hatred between the nations involved; and in this way it led, only twenty years later, to an even more catastrophic global war, during the course of which nuclear weapons were developed.

Most scholars believe that competing colonial ambitions played an important role in setting the stage for the First World War. A second factor was an armaments race between European countries, and the huge profits gained by arms manufacturers. Even at that time, the Military-industrial complex was firmly established; and today it continues to be the greatest source of war, together with neocolonialism.¹

4.3 Prescott Bush and Hitler

Prescott Sheldon Bush (1895-1972), the father of George H.W. Bush and grandfather of George W. Bush, actively supported the revival of Germany's armaments industry in the 1930's, as well as supplying large amounts of money to Adolf Hitler's Nazi Party.²

An article in *The Guardian*³, Ben Aris and Dubcab Campbell write that "George

¹<http://alphahistory.com/worldwar1/imperialism/>
<http://www.flowofhistory.com/units/etc/19/26>
<http://alphahistory.com/worldwar1/militarism/>

²<https://www.youtube.com/watch?v=TnHnjmCYjy4>
<https://www.youtube.com/watch?v=7BZCfbrXKs4>
<https://www.youtube.com/watch?v=7BZCfbrXKs4>
<http://www.georgewalkerbush.net/bushfamilyfundedhitler.htm>
<http://www.theguardian.com/world/2004/sep/25/usa.secondworldwar>

³September 25, 2004



Figure 4.2: **Prescott Bush, the father of George H.W. Bush and grandfather of George W. Bush, supported Hitler’s rise to power with large financial contributions to the Nazi Party. The photo shows them together. Source: topinfo-post.com**

Bush’s grandfather, the late US senator Prescott Bush, was a director and shareholder of companies that profited from their involvement with the financial backers of Nazi Germany.

“The Guardian has obtained confirmation from newly discovered files in the US National Archives that a firm of which Prescott Bush was a director was involved with the financial architects of Nazism.

“His business dealings, which continued until his company’s assets were seized in 1942 under the Trading with the Enemy Act, has led more than 60 years later to a civil action for damages being brought in Germany against the Bush family by two former slave laborers at Auschwitz and to a hum of pre-election controversy.

“The debate over Prescott Bush’s behavior has been bubbling under the surface for some time. There has been a steady Internet chatter about the “Bush/Nazi” connection, much of it inaccurate and unfair. But the new documents, many of which were only declassified last year, show that even after America had entered the war and when there was already significant information about the Nazis’ plans and policies, he worked for and profited from companies closely involved with the very German businesses that financed Hitler’s rise to power. It has also been suggested that the money he made from these dealings helped to establish the Bush family fortune and set up its political dynasty.

“Bush was also on the board of at least one of the companies that formed part of a multinational network of front companies to allow [Fritz] Thyssen to move assets around the world.

“Thyssen owned the largest steel and coal company in Germany and grew rich from Hitler’s efforts to re-arm between the two world wars. One of the pillars in Thyssen’s international corporate web, UBC, worked exclusively for, and was owned by, a Thyssen-

controlled bank in the Netherlands. More tantalizing are Bush's links to the Consolidated Silesian Steel Company (CSSC), based in mineral rich Silesia on the German-Polish border. During the war, the company made use of Nazi slave labor from the concentration camps, including Auschwitz. The ownership of CSSC changed hands several times in the 1930s, but documents from the US National Archive declassified last year link Bush to CSSC, although it is not clear if he and UBC were still involved in the company when Thyssen's American assets were seized in 1942."

4.4 Fritz Thyssen supports Hitler's rise to power

"In 1923, Thyssen met former General Erich Ludendorff, who advised him to attend a speech given by Adolf Hitler, leader of the Nazi Party. Thyssen was impressed by Hitler and his bitter opposition to the Treaty of Versailles, and began to make large donations to the party, including 100,000 gold marks in 1923 to Ludendorff. In this he was unusual among German business leaders, as most were traditional conservatives who regarded the Nazis with suspicion. Thyssen's principal motive in supporting the National Socialists was his great fear of communism; he had little confidence that the various German anticommunist factions would prevent a Soviet-style revolution in Germany unless the popular appeal of communism among the lower classes was co-opted by an anticommunist alternative. Postwar investigators found that he had donated 650,000 Reichsmarks to right-wing parties, mostly to the Nazis, although Thyssen himself claimed to have donated 1 million marks to the Nazi Party. Thyssen remained a member of the German National People's Party until 1932, and did not join the Nazi Party (National Socialist German Workers' Party) until 1933.

"In November, 1932, Thyssen and Hjalmar Schacht were the main organizers of a letter to President Paul von Hindenburg urging him to appoint Hitler as Chancellor. Thyssen also persuaded the Association of German Industrialists to donate 3 million Reichsmarks to the Nazi Party (National Socialist German Workers' Party) for the March, 1933 Reichstag election. As a reward, he was elected a Nazi member of the Reichstag and appointed to the Council of State of Prussia, the largest German state (both purely honorary positions).

"Thyssen welcomed the suppression of the Communist Party, the Social Democrats and the trade unions. In 1934 he was one of the business leaders who persuaded Hitler to suppress the SA, leading to the "Night of the Long Knives". Thyssen accepted the exclusion of Jews from German business and professional life by the Nazis, and dismissed his own Jewish employees. But as a Catholic, he objected to the increasing repression of the Roman Catholic Church, which gathered pace after 1935: in 1937 he sent a letter to Hitler, protesting the persecution of Christians in Germany.[4] The breaking point for Thyssen was the violent pogrom against the Jews in November 1938, known as Kristallnacht, which caused him to resign from the Council of State. By 1939 he was also bitterly criticizing the regime's economic policies, which were subordinating everything to rearmament in preparation for war."

4.5 Unity Mitford and Hitler

Unity Valkyrie Freeman-Mitford (1914-1948) was one of the two Mitford sisters who became notorious for their advocacy of fascism and anti-semitism. Unity's sister Diana left her husband to have an affair with Sir Oswald Mosley, leader of the British Union of Fascists, whom she later married.

Mosley's son, Nicholas, stated that: "Unity became a very extrovert member of the party, which was her way ... She joined my father's party and she used to turn up, she used to go around in a black shirt uniform, and she used to turn up at communist meetings and she used to do the fascist salute and heckle the speaker. That was the sort of person she was". He adds that although his father admired Unity's commitment, Mosley felt "She wasn't doing him any good, because she was making an exhibition of herself."

The two sisters, Unity and Diana, travelled to Germany to attend the Nuremberg Rally as part of a delegation from the British Union of Fascists. Unity said later "The first time I saw him I knew there was no one I would rather meet." According to her biographer, Anne de Courcy, "The Nuremberg rally had a profound effect on both Diana and Unity [...] Unity was already, as it were, convinced about Hitler, but this turned conviction into worship. From then on she wanted to be near Hitler as much as possible"

In 1934, Unity returned to Germany, where she enrolled in a language school in Munich, near to the Nazi headquarters. A biographer, Pryce Jones commented that "She set her mind on getting Hitler, and she discovered that Hitler's movements could be ascertained. It's one of the extraordinary things about Hitler's daily life that he was so available to the public. You knew which café he'd be in, you knew which restaurant he'd be in, which hotel, and he would just go and meet people over sticky buns and cakes, and it was possible to meet him like that. And he was in the habit of eating in the Osteria Bavaria in Munich and she started sitting in the Osteria Bavaria every day. So he would have to come into the front part of the restaurant where there was this English girl."

After ten months of this stalking, Hitler finally invited Unity over to his table. They talked for 30 minutes, and Hitler paid her bill. In a letter to her father, Unity wrote, "It was the most wonderful and beautiful [day] of my life. I am so happy that I wouldn't mind a bit, dying. I'd suppose I am the luckiest girl in the world. For me he is the greatest man of all time".

For his part, Hitler was fascinated with this young blond English girl whose middle name was Valkyrie, and who seemed to be curiously connected to German culture. In fact, Unity's grandfather, Algernon Freeman-Mitford, had been a friend of Hitler's idol, Richard Wagner. Unity and Hitler became close. She became part of his inner circle, and he used their friendship to make Eva Braun jealous.



Figure 4.3: David Bertram Ogilvy Freeman-Mitford, 2nd Baron Redesdale (1878-1958), with his family in 1928. He was a fascist and anti-semite, like his daughters, Unity and Diana.



Figure 4.4: Unity Mitford and Hitler. When Britain declared war on Germany in September 1939, a distraught Unity went to the Englischer Garten park in Munich (the English Garden) and shot herself in the head.

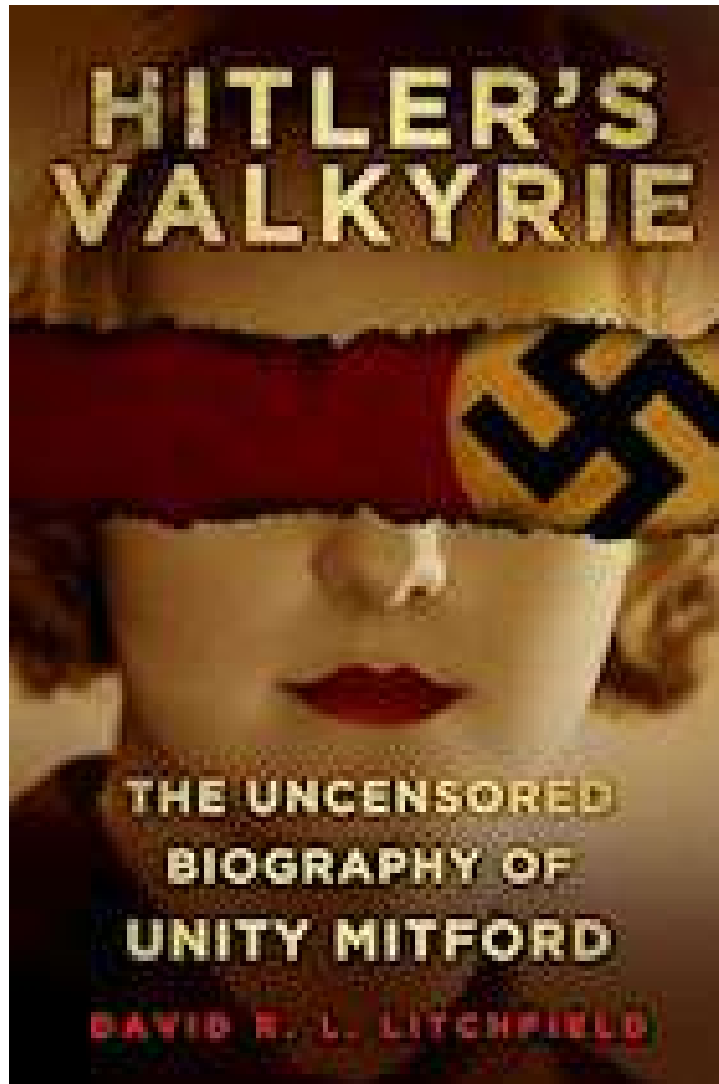


Figure 4.5: A book about the relationship between Unity and Hitler. Upon her return to Britain - with a bullet remaining lodged in her brain - Unity was vilified as an enemy of the state and the Home Office faced calls to have her interned.



Figure 4.6: Unity's sister Diana married Sir Oswald Mosley, leader of the British Union of Fascists.



Figure 4.7: Unity "was right in the inner circle of Nazi leadership" according to her biographer, David Pryce-Jones.

4.6 The British Union of Fascists

Some prominent members and supporters of the British Union of Fascists

- William Edward David Allen MP was the Unionist Member of Parliament for Belfast West.
- John Beckett MP was the Labour Member of Parliament for Peckham.
- Frank Bossard was a British Spy
- Patrick Boyle, 8th Earl of Glasgow was a member of the House of Lords
- Sir Malcolm Campbell was a racing motorist and motoring journalist.
- A. K. Chesterton was a journalist
- Lady Cynthia Curzon (known as 'Cimmie') was the second daughter of George Curzon, Lord Curzon of Kedleston, and the wife of Sir Oswald Mosley until her death in 1933.
- Robert Forgan MP was the Labour Member of Parliament for West Renfrewshire.
- Major General John Frederick Charles Fuller was a military historian and strategist.
- Billy Fullerton, leader of the Billy Boys gang from Glasgow.
- Arthur Gilligan was the Captain of the England cricket team
- Sir Reginald Goodall was a noted English conductor.
- Group Captain Sir Louis Leisler Greig was a British naval surgeon, courtier and intimate of King George VI.
- Harold Sidney Harmsworth, 1st Viscount Rothermere was the owner of the Daily Mail and a member of the House of Lords.
- Josslyn Hay, 22nd Earl of Erroll was a member of the House of Lords
- William Joyce, later nicknamed Lord Haw-Haw
- David Freeman-Mitford, 2nd Baron Redesdale, in addition to his wife, Lady Redesdale, and two of his daughters:
 - Diana Mitford (Lady Mosley, after marriage to Sir Oswald Mosley in 1936)
 - The Hon. Unity Mitford
- St John Philby was an explorer, and father of Kim Philby.
- Sir Alliot Verdon Roe was a pilot and businessman
- Edward Frederick Langley Russell, 2nd Baron Russell of Liverpool was a member of the House of Lords
- Lady Russell
- Edward Russell, 26th Baron de Clifford was a member of the House of Lords
- Hastings Russell, 12th Duke of Bedford was a member of the House of Lords
- Frank Cyril Tiarks was the Director of the Bank of England.
- Sir Frederick Toone was the manager of the England Cricket team



Figure 4.8: Sir Oswald Mosley, leader of the British Union of Fascists.



Figure 4.9: Italy's *Duce* Benito Mussolini (left) with Leader Oswald Mosley (right) during Mosley's visit to Italy in 1936.

4.7 Hitler and the Duke and Duchess of Windsor

The Windsors visit Germany in 1937

After marrying the twice-divorced American, Wally Simpson, Edward VIII had abdicated from his position as King of England. He and his new wife were afterwards known as the Duke and Duchess of Windsor. Edward's new wife was never accepted by British society, and Edward was anxious that she should experience the deference shown to the wife of royalty on an official visit. He therefore accepted an invitation to visit Germany, ostensibly to visit factories and examine the conditions of the workers.

According to Deborah Cadbury, "Adolf Hitler and his foreign minister, Joachim von Ribbentrop, savoured the prospect of a tour of Nazi Germany by Britain's ex-king. Of all the pieces moving swiftly across the chessboard of European diplomacy, the former king turning up in the heart of Berlin was an unexpected bonus."

According to Wikipedia, "The couple were chaperoned in Germany by Robert Ley, and they visited many factories - some producing materiel as part of the arms race - being greeted by the British national anthem and Nazi salutes, which were often returned by the Duke. They also dined regularly with high ranking Nazis such as Goebbels, Göring, von Ribbentrop, Speer, and, the highlight of their tour, Hitler in Berchtesgaden. There, he and the Duke had a long discussion, although it is uncertain precisely what they talked about as the minutes to their meeting were later lost. At the same time, the Duchess took

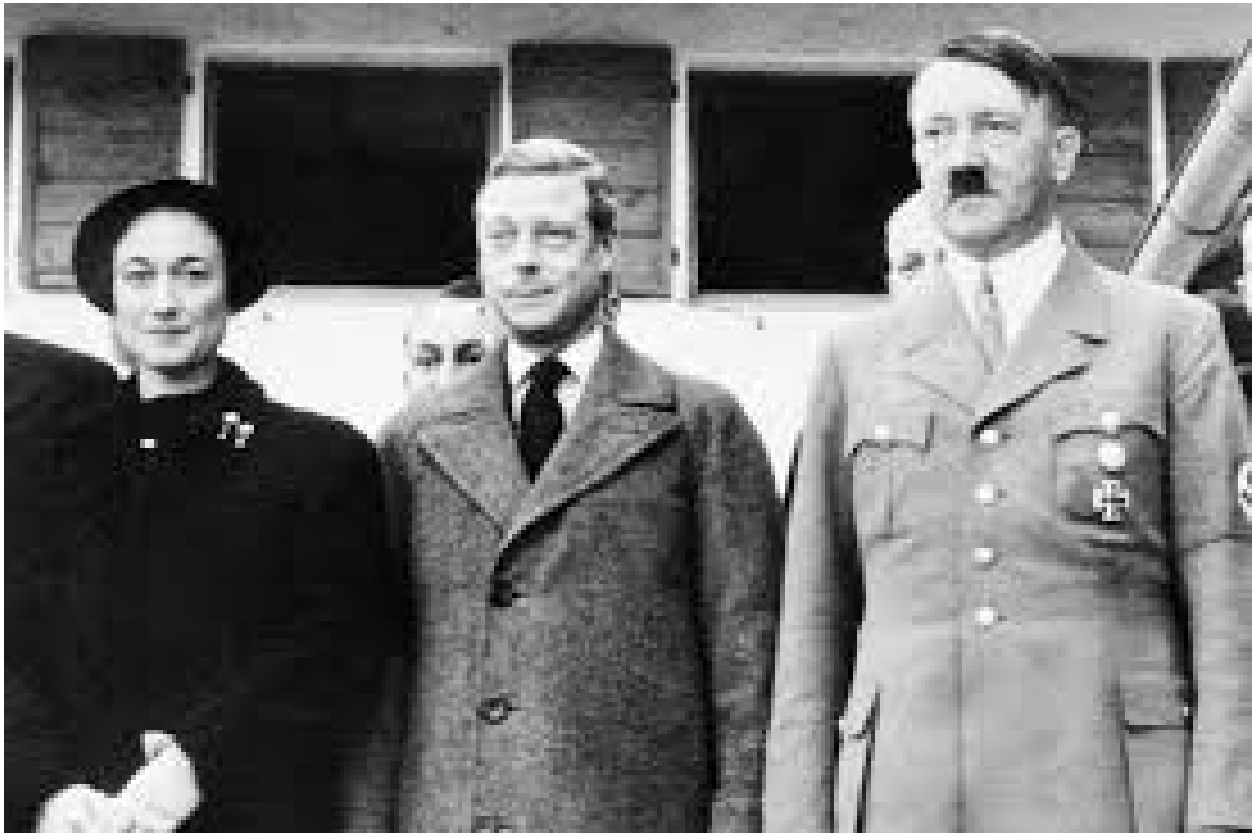


Figure 4.10: Hitler received the Duke and Duchess of Windsor with all the ceremony that would have been due to royalty.

high tea with Hitler's deputy, Rudolf Hess. Hitler was openly sympathetic to the Windsors while the British Government, for its part, was helpless to affect the course of events, particularly as it had forbidden its diplomatic staff in Germany to have any high-level interaction with the couple. Popular opinion of the couple soon declined, and the second leg of the Windsors' tour to America was cancelled."

Meeting with Hitler

The high point of the Windsor's tour was a meeting with Adolf Hitler in his Bavarian retreat, which was known as the Berghof. According to a contemporary witness, "The Duchess was visibly impressed with the Führer's personality, and he apparently indicated that they had become fast friends by giving her an affectionate farewell. [Hitler] took both their hands in his saying a long goodbye, after which he stiffened to a rigid Nazi salute that the Duke returned."



Figure 4.11: In fact, Hitler hoped to make the Windsors into a pro-Nazi King and Queen of England.

4.8 Hitler: A bulwark for the Establishment

Here are some quotations from an essay by Ian Keneth Buckley entitled *Australia's Foreign Wars, Origins, Costs, Future? 8. Supporting Germany's Rearmament & the Steady Slide to WWII*. Reading these quotations from the carefully researched essay, we can see clearly why so many prominent figures in England's "Establishment" made the fatal mistake of supporting German rearmament, despite the provisions of the Treaty of Versailles, and despite Winston Churchill's many warnings.

Hitler and a rearmed Germany were seen as bulwarks against the real threat: a more equal distribution of wealth. A communist revolution had taken place in Russia. It was feared that this revolution might spread to Germany or even to England. Hitler was known to be a fervent opponent of communism. He was known to use strong measures to suppress and ban the Communist Party, and he was known to have plans to increase German "lebensraum" by attacking Russia. Therefore, since communism was seen to be the great enemy, it was logical for the British Establishment to support the rearmament of Germany.

Understanding Appeasement: What drove British Policy?

To better understand the motivation behind the British governments' policy of so-called 'appeasement', in fact their 'accommodation' to and often frank encouragement of Germany's rearmament and foreign policy aims under Hitler, we need to go back to the early post-WWI scene. In Russia, long decades of domestic oppression capped by the terrible sufferings endured during the Great War, had culminated in the revolution of 1917 and, as related above, capitulation to Germany. Fighting on the Eastern front stopped, allowing Germany to transfer many divisions to the Western Front and for a while the possibility of a German victory seemed all too real. With all combatants close to exhaustion, it was a close call, but when the United States took sides in 1917 and entered the battle lines in force in mid 1918, the balance tipped in favour of the Allies. Only then was it possible for the European 'victors' finally to proudly proclaim not only that Germany had 'started the war' but that it, with its allies, had 'lost' it.

However, as we have seen, since all sides (other than the USA and Japan) had suffered such extreme human carnage, vast material wastage and debt, the greater reality was that all had lost, - millions of families bereaved, millions maimed in body and mind, all survivors exhausted, all prime combatant countries' economies ruined. Understandably, then, there was a very widespread dissatisfaction with the old ways of doing things which led most people not only to seek, but to *expect* genuine reforms. That brought great fear in high places - fear of any disturbance to the old ways, the 'old order', fear that revolution (which had already occurred in Russia and was all too close in Germany) might,

like a virus, infect other Western Powers - even France and Britain. This fear, already very strong at the war's end, was further aggravated by the failure to deal with the old social and economic inequalities, especially when these led to total collapse of the market economies, to the Great Depression with its massive unemployment and hardship in the midst of plenty. And the societal response to these greatly worsened conditions simply heightened the fears of the overly privileged to the point of obsession.

In the early days after World War I and Russia's revolution, the most urgent concern was for the German situation. Might not the defeated, suffering, demoralised Germans opt for a more egalitarian, a 'socialist' solution to their predicament? For Lloyd George, who had been Britain's Prime Minister for most of the war and was its chief representative at the 1919 Paris Peace Conference, that concern overshadowed all others. We see this in his *'Fontainebleu Memorandum'* presented to Peace Conference delegates. In this he seemed at first to recognise that the defeated nations must not be saddled with inequalities and injustices which would only make for a further World War - perhaps 'a mere 30 years on'. All sounded pure wisdom, the sort of common sense that could guarantee the security of one's own country along with that of others. However, the motivation behind Lloyd George's Conference message was anything but pure. For soon we learn "*But there is a consideration in favour of long-sighted peace which influences me even more than the desire to leave no causes justifying a fresh outbreak 30 years hence.There is a deep sense not only of discontent, but of anger and revolt amongst the workmen against pre-war conditions. The whole existing order is questioned by the mass of the population from one end of Europe to the other.*"

In particular he was concerned that such conditions in the defeated Germany could, following the Russian example, make it 'go Bolshevik'. And even more alarming, that Britain and France could go the same way. So his prime worry, his overriding concern (which persisted throughout the 1920s and '30s) was not the avoidance of conditions certain to lead to a 'fresh outbreak', a future European war, but the threat to his concept of the 'long-sighted peace', the long-revered 'traditional arrangements' for the creation and (mal)distribution of wealth, both nationally and internationally.

Thus, while in his *Memorandum*, Lloyd George wrote that "...we will open to her (i.e., Germany) the raw materials and markets of the world on equal terms with ourselves, and will do everything possible to enable the German peoples to get upon their legs again. We cannot both cripple her and expect her to pay." he at the same time had no plans to carry out the moves essential for that pacific future. Obviously these would have included: (i) the sharing of responsibility for the war's origin, (ii) limiting German reparations

to invasion-caused material damage, (iii) accepting German exports as Reparations payments, (iv) implementing universal arms limitation; (v) honouring the pledges for the self-determination of peoples; and (vi) instituting fair dealing in economic affairs both at home and abroad. But in the event, these were either absent or severely constrained by the over-riding urge to maintain the 'Old Order' as it was before the war.

That of course meant upholding the 'normal' divide between rich and poor, both nationally and internationally (including the application of the Versailles' Treaty's 'guilt', 'economic' and 'Reparations' Clauses on Germany), maintaining and extending Britain's colonial possessions, and thwarting moves towards overcoming its entrenched poverty at home, what Churchill referred to as "the social problem" - let alone instituting any degree of 'communism', 'socialism' or 'egalitarianism'. Indeed, it was to mean perpetuating all sorts of inequalities and injustices which all too soon were to lead to the Great Depression and then a Second World War, not 30 but a mere 20 years after the First. And since the principal concern of the powerful voices within Britain was the avoidance of risk to any significant redistribution of wealth, that concern was translated into policies designed to block such trends, including their absurd support of German rearmament under Hitler - one known to be a fervent anti-communist and, moreover, one known to have territorial designs on Eastern Europe and Soviet Russia, the communist USSR...

Churchill's summing up

Commenting on [Chamberlain's] extraordinary about-face, Churchill wrote "*Look back and see what we had successively accepted and thrown away: a Germany rearmed in violation of a solemn treaty; air superiority or even air parity cast away; the Rhineland forcibly occupied and the Siegfried Line built or building; the Berlin-Rome Axis established; Austria devoured and digested by the Reich; Czechoslovakia deserted and ruined by the Munich Pact, its fortress line in German hands, its mighty arsenal of Skoda henceforward making munitions for the German armies; President Roosevelt's effort to tabilise or bring to a head the European situation by the intervention of the United States waved aside with one hand and Soviet Russia's undoubted willingness to join the Western Powers and go all lengths to save Czechoslovakia ignored on the other; the services of thirty five Czech divisions against the still unripened German army cast away, when great Britain could herself supply only two to strengthen the front in France; all gone with the wind.History may be scoured and ransacked to find a parallel to this sudden and complete reversal of five or six years' policy of easy-going placatory appeasement, and its transformation almost overnight into a readiness to accept an obviously imminent war on far worse conditions and on the greatest scale.which*

must surely lead to the slaughter of tens of millions of people.”

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Chapter 5

HORRORS LINKED TO SOCIAL DARWINISM

5.1 The “Great Man Theory”

The Wikipedia article on this subject states that “The great man theory is a 19th-century idea according to which history can be largely explained by the impact of great men, or heroes; highly influential individuals who, due to either their personal charisma, intelligence, wisdom, or political skill used their power in a way that had a decisive historical impact. The theory was popularized in the 1840s by Scottish writer Thomas Carlyle. But in 1860 Herbert Spencer formulated a counter-argument that has remained influential throughout the 20th century to the present: Spencer said that such great men are the products of their societies, and that their actions would be impossible without the social conditions built before their lifetimes.

“Carlyle stated that ‘The history of the world is but the biography of great men’, reflecting his belief that heroes shape history through both their personal attributes and divine inspiration. In his book *On Heroes, Hero-Worship and the Heroic in History*, Carlyle set out how he saw history as having turned on the decisions of ‘heroes’, giving detailed analysis of the influence of several such men (including Muhammad, Shakespeare, Luther, Rousseau, Pericles, Napoleon, and Wagner). Carlyle also felt that the study of great men was ‘profitable’ to one’s own heroic side; that by examining the lives led by such heroes, one could not help but uncover something about one’s true nature.”

Napoleon

Napoleon Bonaparte’s successful conquest of much of Europe was so impressive that it seemed to be a prime example of the Great Man Theory. Did he have the right to sacrifice the enormous number of soldiers and civilians killed in his wars for the sake of a greater good - the unification of Europe? Is a “great man” above the usual laws of morality? Napoleon’s disastrous invasion of Russia brought about his downfall, but it was also such



Figure 5.1: According to the “Great Man Theory”, human history is shaped by the ideas and actions of “great men”, and they have the right to commit crimes for the sake of a greater good.

a traumatic event for Russia that two of that country’s most gifted authors wrote books refuting the “Great Man Theory”.

Refutation by Tolstoy

The second part of the Epilogue of his famous novel, *War and Peace*, contains Tolstoy’s refutation of the “Great Man Theory” which claims that historical events are the result of the actions of “heroes” and other great individuals. Tolstoy argues that “... this is impossible because of how rarely these actions result in great historical events.” Rather, he argues, “Great historical events are the result of many smaller events driven by the thousands of individuals involved (he compares this to calculus, and the sum of infinitesimals). He then goes on to argue that these smaller events are the result of an inverse relationship between necessity and free-will, necessity being based on reason and therefore explainable by historical analysis, and free-will being based on ‘consciousness’ and therefore inherently unpredictable.”

Furthermore, in *War and Peace*, the portrait of Napoleon is neither heroic nor admirable nor in control of events. We see him in the burned-out remains of Moscow, giving futile orders, while the situation in which he has placed his army becomes increasingly desperate because of the approaching Russian winter. Tolstoy’s Napoleon is entirely egocentric and lacking in human sympathy for the vast suffering that his ambitions have caused.



Figure 5.2: The Napoleonic Empire in 1812.



Figure 5.3: A Russian stamp commemorating Tolstoy’s “War and Peace”

Refutation by Dostoyevsky

The Russian writer Feodor Dostoyevsky also felt compelled to write an anti-Napoleon novel - a novel refuting the "Great Man Theory". His *Crime and Punishment* deals with a poor student in St. Petersburg, Radion Raskolnikov, who murders an old woman. The victim is an unscrupulous pawnbroker, and Raskolnikov justifies his crime by explaining to himself that he could do a great deal of good with the money that he intends to steal from the old woman, while at the same time riding the world of a vermin.

Several times throughout the novel, Raskolnikov compares himself with Napoleon Bonaparte and shares his belief that murder is permissible in pursuit of a higher purpose. He also wishes to test the theory that some people are capable of such actions and that they have a right to perform them.

Having committed the murder, Raskolnikov finds that he is unable to live with his guilt. He deliberately incriminates himself, is condemned, and is sent to penal servitude Siberia. In the end, however, Raskolnikov achieves moral regeneration through the love of a woman, the prostitute Sonia, who has followed him to Siberia.



Figure 5.4: A portrait of Dostoyevsky by Vasily Perov, 1872.

5.2 Herbert Spencer

Herbert Spencer (1820-1903) achieved great fame as a philosopher during the 19th century. He was “the single most famous European intellectual during the closing decades of the 19th century.” His books on ethics, religion, anthropology, economics, political theory, philosophy, literature, astronomy, biology, sociology, and psychology were translated into many languages. These languages included German, Italian, Spanish, French, Russian, Japanese and Chinese, and many others. In England alone, his books sold over a million copies.

Spencer’s father was a member of the Derby Philosophical Society, and members of the society as well as members of his own family contributed to Herbert Spencer’s education. Spencer was also influenced by members of the publisher John Chapman’s salon, which included some of the leading intellectuals of the day.

Herbert Spencer’s main philosophical work was his enormous 10-volume *System of Synthetic Philosophy*, which took him four decades to complete. The aim of this colossal work was to demonstrate that universal laws govern the behavior and evolution of all systems in the universe, including the evolution of life. Spencer believed that sociology too was governed by these universal laws. After reading Darwin’s book, *The Origin of Species*, Spencer coined the phrase “the survival of the fittest”.

According to the Wikipedia article about him, “For many, the name of Herbert Spencer would be virtually synonymous with Social Darwinism, a social theory that applies the law of the survival of the fittest to society; humanitarian impulses had to be resisted as nothing should be allowed to interfere with nature’s laws, including the social struggle for existence.

“Spencer’s association with Social Darwinism might have its origin in a specific interpretation of his support for competition. Whereas in biology the competition of various organisms can result in the death of a species or organism, the kind of competition Spencer advocated is closer to the one used by economists, where competing individuals or firms improve the well being of the rest of society. Spencer viewed private charity positively, encouraging both voluntary association and informal care to aid those in need, rather than relying on government bureaucracy or force. He further recommended that private charitable efforts would be wise to avoid encouraging the formation of new dependent families by those unable to support themselves without charity.

“In a letter to the Japanese government regarding intermarriage with Westerners, Spencer stated that ‘if you mix the constitution of two widely divergent varieties which have severally become adapted to widely divergent modes of life, you get a constitution which is adapted to the mode of life of neither - a constitution which will not work properly’. He goes on to say that America has failed to limit the immigration of Chinese and restrict their contact, especially sexual, with the presumed European stock. He states ‘if they mix they must form a bad hybrid’ regarding the issue of Chinese and (ethnically European) Americans. Spencer ends his letter with the following blanket statement against all immigration: ‘In either case, supposing the immigration to be large, immense social mischief must arise, and eventually social disorganization. The same thing will happen if there



Figure 5.5: **Herbert Spencer at the age of 70.**

should be any considerable mixture of European or American races with the Japanese.’ ”

5.3 Sir Francis Galton

Sir Francis Galton (1822-1911), one of the founders of the Eugenics movement, was Charles Darwin’s half-cousin. They shared a grandfather, Erasmus Darwin. Many members of both the Galton and Darwin families were Fellows of the Royal Society.

Francis Galton was a child prodigy. By the age of 2 he could read. By five he had started to learn Latin, Greek and long division. At the age of 6, he was reading adult books for pleasure, including Shakespeare, which he quoted at length from memory.

As a young man, Galton studied Medicine at King’s College London Medical School, and Mathematics at the University of Cambridge (1840-1844). His adult interests covered a range of topics, including Statistics, Sociology, Psychology, and Anthropology. He was also an explorer and an inventor.

Wikipedia states that “Galton produced over 340 papers and books. He also created the statistical concept of correlation and widely promoted regression toward the mean. He was the first to apply statistical methods to the study of human differences and inheritance of intelligence, and introduced the use of questionnaires and surveys for collecting data on human communities, which he needed for genealogical and biographical works and for his anthropometric studies.

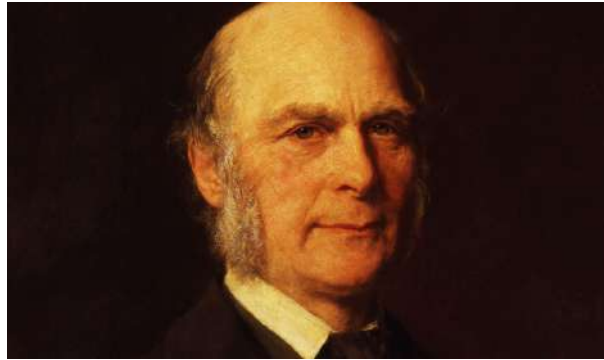


Figure 5.6: **Charles Darwin’s cousin, Sir Francis Galton (1822-1911), was one of the founders of the Eugenics movement.**

“As an investigator of the human mind, he founded psychometrics (the science of measuring mental faculties) and differential psychology and the lexical hypothesis of personality. He devised a method for classifying fingerprints that proved useful in forensic science.

“As the initiator of scientific meteorology, he devised the first weather map, proposed a theory of anticyclones, and was the first to establish a complete record of short-term climatic phenomena on a European scale. He also invented the Galton Whistle for testing differential hearing ability.

“He was a pioneer in eugenics, coining the term itself and the phrase ‘nature versus nurture’. His book *Hereditary Genius* (1869) was the first social scientific attempt to study genius and greatness.”

5.4 Frederich Nietzsche

The extremely influential German philosopher Frederich Nietzsche (1844-1900), began his career as a classical philologist. At the age of 24, he became the youngest ever to hold the Chair of Classical Philology at the University of Basel. However, ten years later he was forced to resign from this position because of health problems. During the following decade, cared for by his mother, Nietzsche completed most of his writing. At the age of 44, he suffered a breakdown and the complete loss of his mental faculties. He died in 1900 at the age of 55.

Wikipedia states that “Nietzsche defined master morality as the morality of the strong-willed. Nietzsche criticizes the view, which he identifies with contemporary British ideology, that good is everything that is helpful, and bad is everything that is harmful. He argues proponents of this view have forgotten the origins of its values, and is based merely on a non-critical acceptance of habit: what is useful has always been defined as good, therefore usefulness is goodness as a value. He continues explaining, that in the prehistoric state, ‘the value or non-value of an action was derived from its consequences,’ but ultimately, ‘There are no moral phenomena at all, only moral interpretations of phenomena.’ For strong-willed men, the ‘good’ is the noble, strong, and powerful, while the ‘bad’ is the

weak, cowardly, timid, and petty.”

Nietzsche states that “The noble type of man experiences itself as determining values; it does not need approval; it judges, ‘what is harmful to me is harmful in itself’; it knows itself to be that which first accords honor to things; it is value-creating.” In this sense, the master morality is the full recognition that oneself is the measure of all moral truths. Insofar as something is helpful to the strong-willed man, it is like what he values in himself; therefore, the strong-willed man values such things as good, because they aid him in a lifelong process of self-actualization through the will to power.

By contrast Nietzsche describes slave morality as follows: “Slave morality does not aim at exerting one’s will by strength but by careful subversion. It does not seek to transcend the masters, but to make them slaves as well. The essence of slave morality is utility:[4] the good is what is most useful for the whole community, not the strong. Nietzsche saw this as a contradiction. Since the powerful are few in number compared to the masses of the weak, the weak gain power by corrupting the strong into believing that the causes of slavery (viz., the will to power) are ‘evil’, as are the qualities they originally could not choose because of their weakness. By saying humility is voluntary, slave morality avoids admitting that their humility was in the beginning forced upon them by a master. Biblical principles of turning the other cheek, humility, charity, and pity are the result of universalizing the plight of the slave onto all humankind, and thus enslaving the masters as well. ‘The democratic movement is the heir to Christianity.’ - the political manifestation of slave morality because of its obsession with freedom and equality.”

Nazi atrocities, wars and genocides were inspired by Nietzsche’s ideas, as well as those of the Eugenics and Social Darwinist movements.

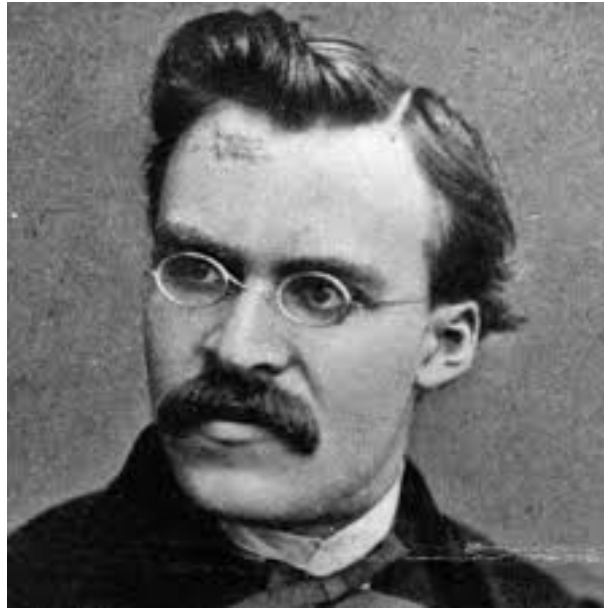


Figure 5.7: **Frederich Nietzsche (1844-1900).** The posthumous editions of his works, edited by his racist sister, made his ideas even worse than they were in his original publications.

5.5 Eugenics in Scandinavia

During the first part of the 20th century, the eugenics movement flourished in Europe and elsewhere in the world. Sweden was the first country where a government-funded eugenics (or “race biological”) institute was created, and this has been considered a stain on the reputation of the emerging welfare state, made worse by the fact that a law that legitimized the forced sterilization of thousands was enacted in the 1930s.

According to the Wikipedia article on Swedish sterilizations, , “Originally the aim of the sterilization policy was explained as protection of society. The law targeted the so-called feeble-minded individuals or other people who were considered ‘unfit for the society’. This practice peaked in the mid-1940s. In 1944, 85% of the sterilizations were performed on eugenic grounds. From the 1950s and onwards the law came to be used mostly for social or medical reasons, under varying degrees of pressure from doctors and social workers.

“According to the 2000 governmental report, 21,000 were estimated to have been forcibly sterilized, 6,000 were coerced into a ‘voluntary’ sterilization while the nature of a further 4,000 cases could not be determined.”

Similar forced sterilizations were also carried out in Denmark. In addition, between 1923 and 1959, unmarried Danish women with several children were labeled as “pathologically promiscuous”. They were forcibly sent for isolation on the island of Sprogø. The idea behind this was that on the island there were no men, and therefore no more pregnancies would occur. However, local fishermen soon discovered that if they landed quietly on the island at night, they could find willing partners to fulfill their romantic desires.



Figure 5.8: Many thousands of forced sterilizations were performed in the Scandinavian countries. Eugenic and racist ideas were also used by Denmark to justify colonial rule over Greenland.

5.6 Nazi atrocities and genocides

The Eugenics movement and the ideas of Nietzsche, Galton and Spengler must bear at least part of the blame for Nazi atrocities and genocides. During the World War II Holocaust, six million Jews were systematically murdered. This amounted to two thirds of the Jewish population of Europe. A broader definition of the Holocaust includes the murder of the Roma and the “incurably sick”. as well as ethnic Poles, other Slavic groups, Soviet citizens and prisoners of war, homosexuals, Jehovah’s Witnesses, black people, and political opponents.

At least three million Soviet prisoners of war died in German custody, but this figure is small compared with the total number of lives lost in the Soviet Union during World War II. Depending on which historian you believe, the USSR lost at least 11,000,000 soldiers (killed and missing) as well as somewhere between 7,000,000 and 20,000,000 million of its civilians. The total number of people killed in World War II is approximately 60,000,000. If deaths from war-related disease and famine are included, this figure becomes an estimated 80,000,000.



Figure 5.9: Nazi genocides: A pile of corpses in the Buchenwald extermination camp.



Figure 5.10: The idea of the superiority of one race over another was at the root of Nazi atrocities.



Figure 5.11: Nazi racism was built on the idea that Aryans are superior to all other races. But who is to decide? Will not each ethnic group or nation always decide that they themselves are the “chosen people”, loved by God and superior to all others?



Figure 5.12: Baba Yar.

5.7 Ayn Rand

Alisa Zinov'yevna Rosenbaum, who later renamed herself “Ayn Rand”, was born in St. Petersburg in 1905. After her education in Russia, she moved to the United States in 1926.

Two of her early novels were unsuccessful in the United States, but in 1943 she achieved fame with her third novel, *The Fountainhead*. Later, in 1957, she published another highly successful novel, *Atlas Struggled*. After these two novels, Rand abandoned fiction and began to publish a magazine to promote her personal philosophy. She also published collections of essays until her death in 1982.

The philosophy which she promoted in her books, magazine and essays is close to the “Will To Power” ideas of Nietzsche, which lie behind Nazi ideology and genocides. Rand’s ideas are also closely related to the neoliberal philosophy of military world dominance that we see in the Project for a New American Century.

The hero of *The Fountainhead*, is an individualistic young architect named Howard Roark, who designs uncompromisingly modernistic buildings despite the opposition of the majority of architects, who are unwilling to accept innovation. Rand presents her hero as the embodiment of the ideal man. He personifies her belief that individualism is superior to collectivism.

In *Atlas Struggled*, which Ayn Rand regarded as her *magnum opus*, she presents us with a picture of a dystopian American society in which the efficiency of private businesses is undermined by government regulations and by “looting”. As the novel ends, a new hyper-capitalist society is being planned.

Three films based on *Atlas Struggled* were produced as a series, Part I in 2011, Part II in 2012, and Part III in 2014, but they achieved neither critical nor box-office success. By contrast, the novel itself was translated into many languages, and by 1984 its sales had exceeded 5 million copies. The book continues to sell very well, especially in times of financial crisis. In 2011 it sold 445,000 copies.

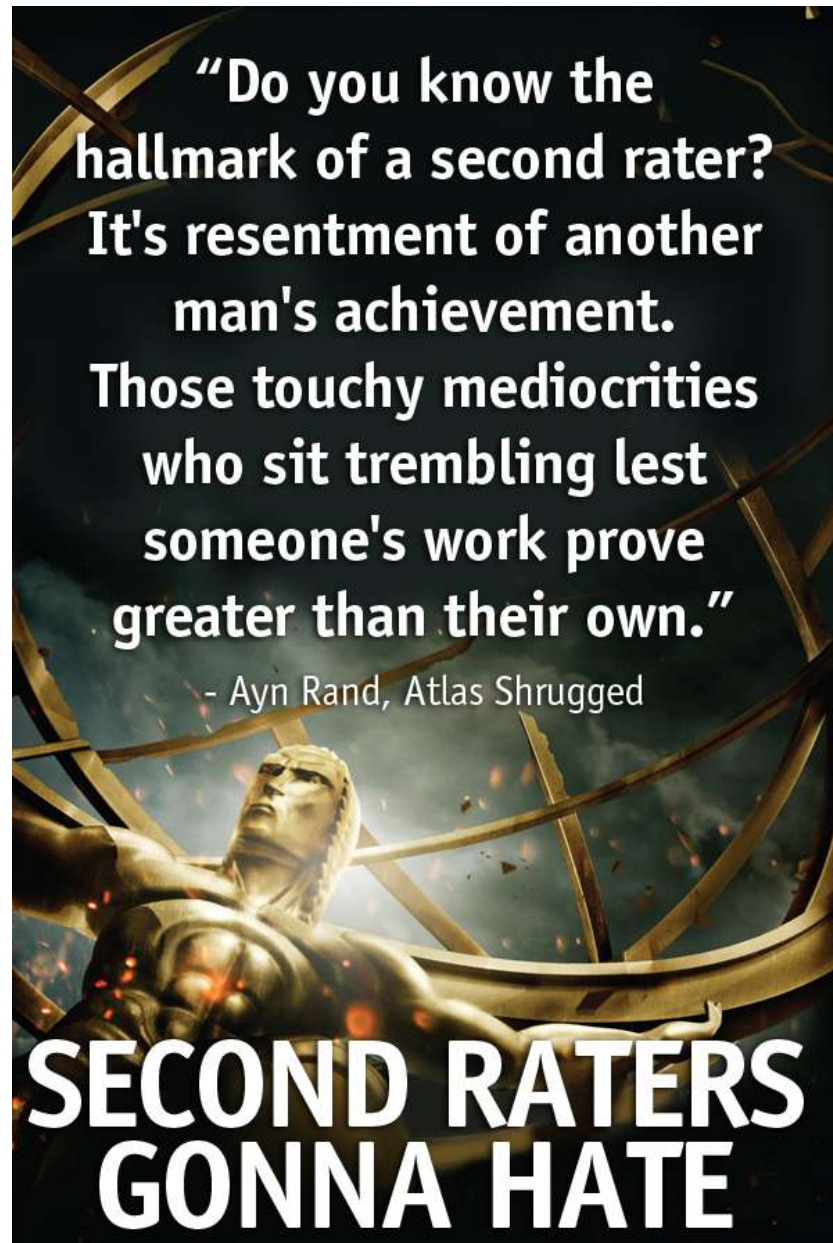


Figure 5.13: Ayn Rand's version of the "Great Man Theory" has many followers today.



Figure 5.14: Neoliberalism: Economic inequality is increasing today, both within nations and between nations. One of the worst consequences is the control of governments by small oligarchies and the decay of true democracy.



Figure 5.15: Neoliberalism: A map of the world.

Suggestions for further reading

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Chapter 6

RESOURCE WARS

6.1 Adam Smith's invisible hand is at our throats

As everyone knows, Adam Smith invented the theory that individual self-interest is, and ought to be, the main motivating force of human economic activity, and that this, in effect, serves the wider social interest. He put forward a detailed description of this concept in an immense book, "The Wealth of Nations" (1776).

Adam Smith (1723-1790) had been Professor of Logic at the University of Glasgow, but in 1764 he withdrew from his position at the university to become the tutor of the young Duke of Buccleuch. In those days a Grand Tour of Europe was considered to be an important part of the education of a young nobleman, and Smith accompanied Buccleuch to the Continent. To while away the occasional dull intervals of the tour, Adam Smith began to write an enormous book on economics which he finally completed twelve years later. He began his "Inquiry into the Nature and Causes of the Wealth of Nations" by praising division of labor. As an example of its benefits, he cited a pin factory, where ten men, each a specialist in his own set of operations, could produce 48,000 pins in a day. In the most complex civilizations, Smith stated, division of labor has the greatest utility.

The second factor in prosperity, Adam Smith maintained, is a competitive market, free from monopolies and entirely free from governmental interference. In such a system, he tells us, the natural forces of competition are able to organize even the most complex economic operations, and are able also to maximize productivity. He expressed this idea in the following words:

"As every individual, therefore, endeavors as much as he can, both to employ his capital in support of domestic industry, and so to direct that industry that its produce may be of greatest value, each individual necessarily labours to render the annual revenue of the Society as great as he can."

"He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of greatest value, he intends only his own gain; and he is in this, as in

many other cases, led by an invisible hand to promote an end that was no part of his intention. Nor is it always the worse for Society that it was no part of it. By pursuing his own interest, he frequently promotes that of Society more effectively than when he really intends to promote it.”

In other words, Smith maintained that self-interest (even greed) is a sufficient guide to human economic actions. The passage of time has shown that he was right in many respects. The free market, which he advocated, has turned out to be the optimum prescription for economic growth. However, history has also shown that there is something horribly wrong or incomplete about the idea that individual self-interest alone, uninfluenced by ethical and ecological considerations, and totally free from governmental intervention, can be the main motivating force of a happy and just society. There has also proved to be something terribly wrong with the concept of unlimited economic growth. Here is what actually happened:

In pre-industrial Europe, peasant farmers held a low but nevertheless secure position, protected by a web of traditional rights and duties. Their low dirt-floored and thatched cottages were humble but safe refuges. If a peasant owned a cow, it could be pastured on common land.

With the invention of the steam engine and the introduction of spinning and weaving machines towards the end of the 18th Century, the pattern changed, at first in England, and afterwards in other European countries. Land-owners in Scotland and Northern England realized that sheep were more profitable to have on the land than “crofters” (i.e., small tenant farmers), and families that had farmed land for generations were violently driven from their homes with almost no warning. The cottages were afterwards burned to prevent the return of their owners.

The following account of the Highland Clearances has been left by Donald McLeod, a crofter in the district of Sutherland: “The consternation and confusion were extreme. Little or no time was given for the removal of persons or property; the people striving to remove the sick or helpless before the fire should reach them; next struggling to save the most valuable of their effects. The cries of the women and children; the roaring of the affrighted cattle, hunted at the same time by the yelling dogs of the shepherds amid the smoke and fire, altogether presented a scene that completely baffles description - it required to be seen to be believed... The conflagration lasted for six days, until the whole of the dwellings were reduced to ashes and smoking ruins.”

Between 1750 and 1860, the English Parliament passed a large number of “Enclosure Acts”, abolishing the rights of small farmers to pasture their animals on common land that was not under cultivation. The fabric of traditional rights and duties that once had protected the lives of small tenant farmers was torn to pieces. Driven from the land, poor families flocked to the towns and cities, hoping for employment in the textile mills that seemed to be springing up everywhere.

According to the new rules by which industrial society began to be governed, traditions were forgotten and replaced by purely economic laws. Labor was viewed as a commodity, like coal or grain, and wages were paid according to the laws of supply and demand, without regard for the needs of the workers. Wages fell to starvation levels, hours of work increased,



Figure 6.1: A watercolor painting by Vincent van Gogh showing wives of Belgian miners carrying bags of coal.



Figure 6.2: London during the industrial revolution

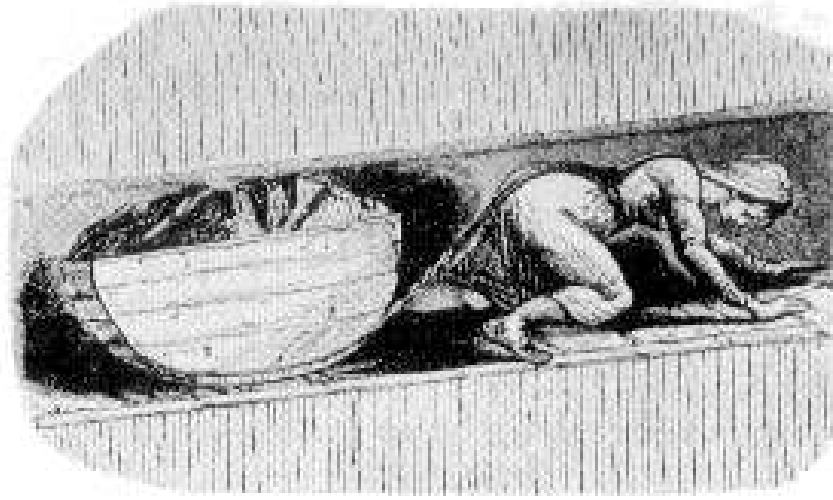


Figure 6.3: A girl pulling a coaltub through the narrow space left by removal of coal from a seam.

and working conditions deteriorated.

John Fielden's book, "The Curse of the Factory System" was written in 1836, and it describes the condition of young children working in the cotton mills. "The small nimble fingers of children being by far the most in request, the custom instantly sprang up of procuring 'apprentices' from the different parish workhouses of London, Birmingham and elsewhere... Overseers were appointed to see to the works, whose interest it was to work the children to the utmost, because their pay was in proportion to the quantity of pay that they could exact."

"Cruelty was, of course, the consequence; and there is abundant evidence on record to show that in many of the manufacturing districts, the most heart-rending cruelties were practiced on the unoffending and friendless creatures... that they were flogged, fettered and tortured in the most exquisite refinements of cruelty, that they were in many cases starved to the bone while flogged to their work, and that they were even in some instances driven to commit suicide... The profits of manufacture were enormous, but this only whetted the appetite that it should have satisfied."

Dr. Peter Gaskell, writing in 1833, described the condition of the English mill workers as follows: "The vast deterioration in personal form which has been brought about in the manufacturing population during the last thirty years... is singularly impressive, and fills the mind with contemplations of a very painful character... Their complexion is sallow and pallid, with a peculiar flatness of feature caused by the want of a proper quantity of adipose substance to cushion out the cheeks. Their stature is low - the average height of men being five feet, six inches... Great numbers of the girls and women walk lamely or awkwardly... Many of the men have but little beard, and that in patches of a few hairs... (They have) a spiritless and dejected air, a sprawling and wide action of the legs..."

"Rising at or before daybreak, between four and five o'clock the year round, they



Figure 6.4: **Child laborers during the early Industrial Revolution**

swallow a hasty meal or hurry to the mill without taking any food whatever... At twelve o'clock the engine stops, and an hour is given for dinner... Again they are closely immured from one o'clock till eight or nine, with the exception of twenty minutes, this being allowed for tea. During the whole of this long period, they are actively and unremittingly engaged in a crowded room at an elevated temperature."

Dr. Gaskell described the housing of the workers as follows: "One of the circumstances in which they are especially defective is that of drainage and water-closets. Whole ranges of these houses are either totally undrained, or very partially... The whole of the washings and filth from these consequently are thrown into the front or back street, which, often being unpaved and cut into deep ruts, allows them to collect into stinking and stagnant pools; while fifty, or even more than that number, having only a single convenience common

to them all, it is in a very short time choked with excrementous matter. No alternative is left to the inhabitants but adding this to the already defiled street.”

“It frequently happens that one tenement is held by several families... The demoralizing effects of this utter absence of domestic privacy must be seen before they can be thoroughly appreciated. By laying bare all the wants and actions of the sexes, it strips them of outward regard for decency - modesty is annihilated - the father and the mother, the brother and the sister, the male and female lodger, do not scruple to commit acts in front of each other which even the savage keeps hid from his fellows.”

The landowners of Scotland were unquestionably following self-interest as they burned the cottages of their crofters; and self-interest motivated overseers as they whipped half-starved child workers in England’s mills. Adam Smith’s “invisible hand” no doubt guided their actions in such a way as to maximize production. But whether a happy and just society was created in this way is questionable. Certainly it was a society with large areas of unhappiness and injustice. Self-interest alone was not enough. A society following purely economic laws - a society where selfishness is exalted as the mainspring for action - lacks both the ethical and ecological dimensions needed for social justice, widespread happiness, and sustainability.

6.2 Our greed-based economic system today

Today our greed-based, war addicted, and growth-obsessed economic system poses even greater threats than it did during the early phases of the Industrial Revolution. Today it threatens to destroy human civilization and much of the biosphere.

According to a recently-published study by Oxfam, just 1 percent of the world’s population controls nearly half of the planet’s wealth. The study says that this tiny slice of humanity controls 110 trillion US dollars, or 65 times the total wealth of the poorest 3.5 billion people. The world’s 85 richest people own as much as the poorest 50 percent of humanity. 70 percent of the world’s people live in a country where income inequality has increased in the past three decades.

This shocking disparity in wealth has led to the decay of democracy in many countries, because the very rich have used their money to control governments, and also to control the mass media and hence to control public opinion. The actions of many governments today tend not to reflect what is good for the people (or more crucially, what is good for the future of our planet), but rather what is good for special interest groups, for example, the fossil fuel industry and the military-industrial complex.

Today the world spends roughly 1,700,000,000,000 US dollars on armaments, almost 2 trillion. This vast river of money, almost too great to be imagined, flows into the pockets of arms manufacturers, and is used by them to control governments, which in turn vote for bloated military budgets and aggressive foreign policies which provoke the endless crises and conflicts that are necessary to justify the diversion of such vast sums of money from urgently-needed social goals into the bottomless pit of war.

The reelection of the slave-like politicians is ensured by the huge sums made available



Figure 6.5: **An oxymoron: The vultures of greed never protect the dove of peace.**

for their campaigns by the military-industrial complex. This pernicious circular flow of money, driving endless crises, has sometimes been called “The Devil’s Dynamo”. Thus the world is continually driven to the brink of thermonuclear war by highly dangerous interventions such as the recent ones in North Africa, the Middle East, Ukraine, South and Central America, and the Korean Peninsula.

It is doubtful that any of the political or military figures involved with this arrogant risking of human lives and the human future have any imaginative idea of what a thermonuclear war would be like. In fact it would be an ecological catastrophe of huge proportions, making large areas of the world permanently uninhabitable through long-lived radioactive contamination. The damage to global agriculture would be so great as to produce famine leading to a billion or more deaths from starvation. All the nations of the earth would suffer, neutrals as well as belligerents.

Besides supporting the appalling war machine, our bought-and-paid-for politicians also fail to take the actions that would be needed to prevent the worst effects of climate change. The owners of the fossil fuel industries have even mounted advertising campaigns to convince the public that the threat of anthropogenic climate change is not real. Sadly, the threat of catastrophic climate change is all too real, as 99 percent the worlds climate scientists have warned.

The world has recently passed a dangerous landmark in atmospheric CO₂ concentration, 400 ppm. The last time that the earth experienced such high concentrations of this

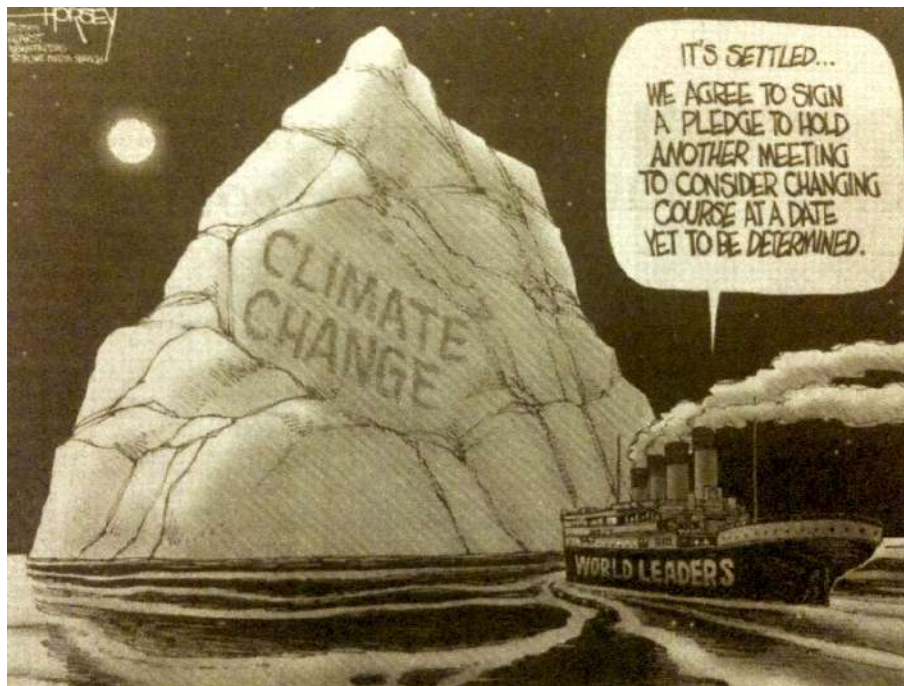


Figure 6.6: The ship in the cartoon is drawn so as to resemble the Titanic.

greenhouse gas were several million years ago. At that time the Arctic was free from ice, and sea levels were 40 meters higher than they are today. Global warming is a slow and long-term effect, so such high sea levels will be slow in arriving, but ultimately we must expect that coastal cities and much of the world's low-lying land will be under water. We must also expect many tropical regions of the world to become uninhabitable because of high temperatures. Finally there is a threat of famine because agriculture will be hit by high temperatures and aridity.

There are several very dangerous feedback loops that may cause the earth's temperatures to rise much faster than has been predicted by the International Panel on Climate Change. By far the most dangerous of these comes from the melting of methane hydrate crystals that are currently trapped in frozen tundra and on the floor of seabeds.

At high pressures, methane combines with water to form crystals called hydrates or clathrates. These crystals are stable at the temperatures currently existing on ocean floors, but whenever the water temperature rises sufficiently, the crystals become unstable and methane gas bubbles to the surface. This effect has already been observed in the Arctic seas north of Russia. The total amount of methane clathrates on ocean floors is not precisely known, but it is estimated to be very large indeed, corresponding to between 3,000 and 11,000 gigatons of carbon. The release of even a small fraction of this amount of methane into our atmosphere would greatly accelerate rising temperatures, leading to the release of still more methane, in a highly dangerous feedback loop. We must at all costs avoid global temperatures which will cause this feedback loop to trigger in earnest.

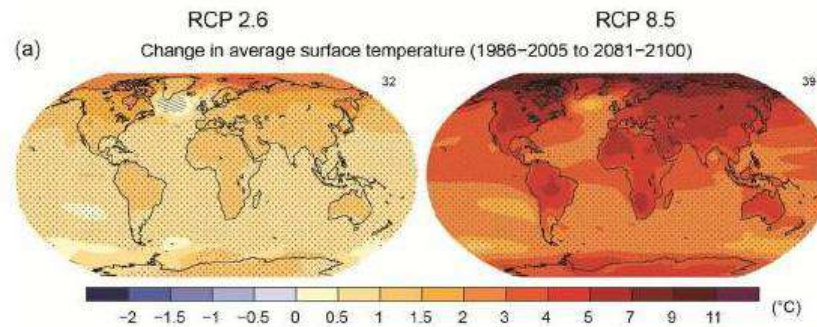


Figure 6.7: Temperature changes will be greatest in the polar regions. Far greater changes in global temperatures are to be expected in the 22nd and 23rd centuries and in subsequent centuries, because the thermal inertia of the oceans makes climate change a very slow and long-term effect.

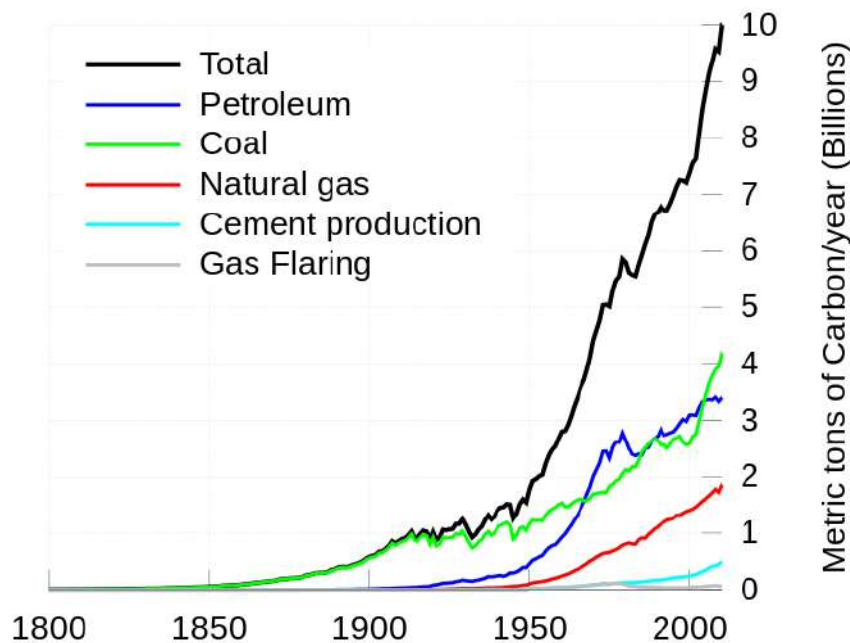


Figure 6.8: The isotope ratios in ice cores from the Greenland ice sheet allow us to see the close correlation between atmospheric CO₂ concentration and temperatures over a very long period of time. Thus regardless of questions of cause and effect, we can expect rising concentrations of CO₂ to be accompanied by rising temperatures. As we can see from the graphs, the rate of increase in carbon emissions has shown no sign of slowing in recent years.

6.3 Human motivations were not always so selfish

For the reasons mentioned above, we can see that an economic system where selfishness and greed are exalted as the mainspring for human actions lacks both a social conscience and an ecological conscience. Both these dimensions are needed for the long-term survival of human civilization and the biosphere.

We must remember, however, that the worship of the free market and the exaltation of selfishness are relatively recent developments in human history. During most of their million-year history, humans lived in small groups, not in great cities or nations, and sharing was part of their lifestyle. Perhaps that lifestyle is the one to which we should return if we wish the human future to stretch out for another million years.

6.4 Neocolonialism

In his book, “Neocolonialism, The Last Stage of Imperialism” (Thomas Nielsen, London, 1965), Kwamai Nkrumah defined neocolonialism with the following words: “The essence of neocolonialism is that the State which is subject to it is, in theory, independent, and has all the outward trappings of international sovereignty. In reality its economic system and thus its political policy is directed from the outside. The methods and form of this direction can take various shapes. For example, in an extreme case, the troops of the imperial power may garrison the territory of the neocolonial State and control the government of it. More often, however, neocolonial control is exercised through monetary means...”

“The struggle against neocolonialism is not aimed at excluding the capital of the developed world from operating in less developed countries. It is aimed at preventing the financial power of the developed countries from being used in such a way as to impoverish the less developed.”

6.5 The resource curse

The way in which the industrialized countries maintain their control over less developed nations can be illustrated by the “resource curse”, i.e. the fact that resource-rich developing countries are no better off economically than those that lack resources, but are cursed with corrupt and undemocratic governments. This is because foreign corporations extracting local resources under unfair agreements exist in a symbiotic relationship with corrupt local officials.

One might think that taxation of foreign resource-extracting firms would provide developing countries with large incomes. However, there is at present no international law governing multinational tax arrangements. These are usually agreed to on a bilateral basis, and the industrialized countries have stronger bargaining powers in arranging the bilateral agreements.

6.6 Confessions of an economic hit-man

1

A book by John Perkins, “Confessions of an Economic Hit-Man”, can give us an idea of the way in which our economic system operates to further enrich wealthy nations and impoverish poor ones. Here are some excerpts:

“Economic hit men (EHMs) are highly paid professionals who cheat countries around the globe out of trillions of dollars. They funnel money from the World Bank, the U.S. Agency for International Development (USAID), and other foreign ‘aid’ organizations into the coffers of huge corporations and the pockets of a few wealthy families who control the planet’s natural resources.”

“Their tools included fraudulent financial reports, rigged elections, payoffs, extortion, sex, and murder. They play a game as old as empire, but one that has taken on new and terrifying dimensions during this time of globalization. I was initially recruited while I was in business school back in the late sixties by the National Security Agency, the nation’s largest and least understood spy organization; but ultimately I worked for private corporations.”

“The first real economic hit man was back in the early 1950s, Kermit Roosevelt, Jr., the grandson of Teddy, who overthrew the government of Iran, a democratically elected government, Mossadegh’s government, who was Time magazine’s person of the year; and he was so successful at doing this without any bloodshed, well, there was a little bloodshed, but no military intervention, just spending millions of dollars and replaced Mossadegh with the Shah of Iran.”

“At that point understood that this idea of economic hit man was an extremely good one. We didn’t have to worry about the threat of war with Russia when we did it this way. The problem with that was that Roosevelt was a C.I.A. agent. He was a government employee. Had he been caught, we would have been in a lot of trouble. It would have been very embarrassing. So, at that point, the decision was made to use organizations like the C.I.A. and the N.S.A. to recruit potential economic hit men like me and then send us to work for private consulting companies, engineering firms, construction companies, so that if we were caught, there would be no connection with the government.”

¹<http://tehrig.blogspot.dk/2013/11/confessions-of-economic-hit-man.html>
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<https://en.wikipedia.org/wiki/Corporatocracy>



6.7 Debt slavery

At the moment, the issue of debt slavery is in the news because of the predicament of Greece and the intended fate of Ukraine, but the problem is a very general one.

If any quantity, for example indebtedness, is growing at the rate of 7% per year, the doubling time is only 9.9 years. At higher rates of interest, the doubling time is still less. If a debt remains unpaid for so long that it more than doubles, most of the repayments will go for interest, rather than for reducing the amount of the debt.

In the case of the debts of third world countries to private banks in the industrialized parts of the world and to the IMF, many of the debts were incurred in the 1970's for purposes which were of no benefit to local populations, for example purchase of military hardware. Today the debts remain, although the amount paid over the years by the developing countries is very many times the amount originally borrowed.

Third world debt can be regarded as a means by which the industrialized nations extract raw materials from developing countries without any repayment whatever. In fact, besides extracting raw materials, they extract money. The injustice of this arrangement was emphasized recently by Pope Francis in his wonderful encyclical *Laudato Si'*.²

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Like Naomi Klein, Prof. Klare believes that the peace movement and the climate movement ought to join forces.⁴

6.8 Blood for oil

There is a close relationship between petroleum and war. James A. Paul, Executive Director of the Global Policy Forum, has described this relationship very clearly in the following words:

“Modern warfare particularly depends on oil, because virtually all weapons systems rely on oil-based fuel - tanks, trucks, armored vehicles, self-propelled artillery pieces, airplanes, and naval ships. For this reason, the governments and general staffs of powerful nations seek to ensure a steady supply of oil during wartime, to fuel oil-hungry military forces in far-flung operational theaters.”

²<http://dissidentvoice.org/2015/07/a-revolutionary-pope-calls-for-rethinking-the-outdated-criteria-that-rule-the-world/>

<http://www.globalissues.org/issue/28/third-world-debt-undermines-development>

³<https://www.youtube.com/watch?v=PCXgnbTdhNo>

<https://www.youtube.com/watch?v=S-cdHIGFrF0>

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<https://www.youtube.com/watch?v=S-cdHIGFrF0>

⁴<https://www.youtube.com/watch?v=LIdlm4ywAlc>

“Just as governments like the US and UK need oil companies to secure fuel for their global war-making capacity, so the oil companies need their governments to secure control over global oilfields and transportation routes. It is no accident, then, that the world’s largest oil companies are located in the world’s most powerful countries.”

“Almost all of the world’s oil-producing countries have suffered abusive, corrupt and undemocratic governments and an absence of durable development. Indonesia, Saudi Arabia, Libya, Iraq, Iran, Angola, Colombia, Venezuela, Kuwait, Mexico, Algeria - these and many other oil producers have a sad record, which includes dictatorships installed from abroad, bloody coups engineered by foreign intelligence services, militarization of government and intolerant right-wing nationalism.”

Iraq, in particular, has been the scene of a number of wars motivated by the West’s thirst for oil. During World War I, 1914-1918, the British captured the area (then known as Mesopotamia) from the Ottoman Empire after four years of bloody fighting. Although Lord Curzon denied that the British conquest of Mesopotamia was motivated by oil, there is ample evidence that British policy was indeed motivated by a desire for control of the region’s petroleum. For example, Curzon’s Cabinet colleague Sir Maurice Hankey stated in a private letter that oil was “a first-class war aim”. Furthermore, British forces continued to fight after the signing of the Mudros Armistice. In this way, they seized Mosul, the capital of a major oil-producing region, thus frustrating the plans of the French, who had been promised the area earlier in the secret Sykes-Picot Agreement.

Lord Curzon was well aware of the military importance of oil, and following the end of the First World War he remarked: “The Allied cause has floated to victory on a wave of oil”.

During the period between 1918 and 1930, fierce Iraqi resistance to the occupation was crushed by the British, who used poison gas, airplanes, incendiary bombs, and mobile armored cars, together with forces drawn from the Indian Army. Winston Churchill, who was Colonial Secretary at the time, regarded the conflict in Iraq as an important test of modern military-colonial methods.

In 1932, Britain granted nominal independence to Iraq, but kept large military forces in the country and maintained control of it through indirect methods. In 1941, however, it seemed likely that Germany might try to capture the Iraqi oilfields, and therefore the British again seized direct political power in Iraq by means of military force. It was not only Germany that Britain feared, but also US attempts to gain access to Iraqi oil.

The British fear of US interest in Iraqi oil was soon confirmed by events. In 1963 the US secretly backed a military coup in Iraq that brought Saddam Hussein’s Ba’ath Party to power. In 1979 the western-backed Shah of Iran was overthrown, and the United States regarded the fundamentalist Shi’ite regime that replaced him as a threat to supplies of oil from Saudi Arabia. Washington saw Saddam’s Iraq as a bulwark against the militant Shi’ite extremism of Iran that was threatening oil supplies from pro-American states such as Kuwait and Saudi Arabia.

In 1980, encouraged to do so by the fact that Iran had lost its US backing, Saddam Hussein’s government attacked Iran. This was the start of a extremely bloody and destructive war that lasted for eight years, inflicting almost a million casualties on the two



nations. Iraq used both mustard gas and the nerve gases Tabun and Sarin against Iran, in violation of the Geneva Protocol.

Both the United States and Britain helped Saddam Hussein's government to obtain chemical weapons. A chemical plant, called Falluja 2, was built by Britain in 1985, and this plant was used to produce mustard gas and nerve gas. Also, according to the Riegel Report to the US Senate, May 25, (1994), the Reagan Administration turned a blind eye to the export of chemical weapon precursors to Iraq, as well as anthrax and plague cultures that could be used as the basis for biological weapons. According to the Riegel Report, "records available from the supplier for the period 1985 until the present show that during this time, pathogenic (meaning disease producing) and toxigenic (meaning poisonous), and other biological research materials were exported to Iraq pursuant to application and licensing by the US Department of Commerce."

In 1984, Donald Rumsfeld, Reagan's newly appointed Middle East Envoy, visited Saddam Hussein to assure him of America's continuing friendship, despite Iraqi use of poison gas. When (in 1988) Hussein went so far as to use poison gas against civilian citizens of his own country in the Kurdish village of Halabja, the United States worked to prevent international condemnation of the act. Indeed US support for Saddam was so unconditional that he obtained the false impression that he had a free hand to do whatever he liked in the region.

On July 25, 1990, US Ambassador April Glaspie met with Saddam Hussein to discuss oil prices and how to improve US-Iraq relations. According to the transcript of the meeting, Ms Glaspie assured Saddam that the US "had no opinion on the Arab-Arab conflicts, like your border disagreement with Kuwait." She then left on vacation. Mistaking this conversation for a green light, Saddam invaded Kuwait eight days later.

By invading Kuwait, Hussein severely worried western oil companies and governments, since Saudi Arabia might be next in line. As George Bush senior said in 1990, at the time of the Gulf War, "Our jobs, our way of life, our own freedom and the freedom of friendly countries around the world would all suffer if control of the world's great oil reserves fell into the hands of Saddam Hussein."

On August 6, 1990, the UN Security Council imposed comprehensive economic sanctions against Iraq with the aim of forcing Iraq to withdraw from Kuwait. Meanwhile, US

Secretary of State James A. Baker III used arm-twisting methods in the Security Council to line up votes for UN military action against Iraq. In Baker's own words, he undertook the process of "cajoling, extracting, threatening and occasionally buying votes".

On November 29, 1990, the Council passed Resolution 678, authorizing the use of "all necessary means" (by implication also military means) to force Iraq to withdraw from Kuwait. There was nothing at all wrong with this, since the Security Council had been set up by the UN Charter to prevent states from invading their neighbors. However, one can ask whether the response to Saddam Hussein's invasion of Kuwait would have been so wholehearted if oil had not been involved.

There is much that can be criticized in the way that the Gulf War of 1990-1991 was carried out. Besides military targets, the US and its allies bombed electrical generation facilities with the aim of creating postwar leverage over Iraq. The electrical generating plants would have to be rebuilt with the help of foreign technical assistance, and this help could be traded for postwar compliance. In the meantime, hospitals and water-purification plants were without electricity. Also, during the Gulf War, a large number of projectiles made of depleted uranium were fired by allied planes and tanks. The result was a sharp increase in cancer in Iraq. Finally, both Shi'ites and Kurds were encouraged by the Allies to rebel against Saddam Hussein's government, but were later abandoned by the allies and slaughtered by Saddam.

The most terrible misuse of power, however, was the US and UK insistence the sanctions against Iraq should remain in place after the end of the Gulf War. These two countries used their veto power in the Security Council to prevent the removal of the sanctions. Their motive seems to have been the hope that the economic and psychological impact would provoke the Iraqi people to revolt against Saddam. However that brutal dictator remained firmly in place, supported by universal fear of his police and by massive propaganda. The effect of the sanctions was to produce more than half a million deaths of children under five years of age, as is documented by UNICEF data. The total number of deaths that the sanctions produced among Iraqi civilians probably exceeded a million, if older children and adults are included.

Ramsey Clark, who studied the effects of the sanctions in Iraq from 1991 onwards, wrote to the Security Council that most of the deaths "are from the effects of malnutrition including marasmas and kwashiorkor, wasting or emaciation which has reached twelve per cent of all children, stunted growth which affects twenty-eight per cent, diarrhea, dehydration from bad water or food, which is ordinarily easily controlled and cured, common communicable diseases preventable by vaccinations, and epidemics from deteriorating sanitary conditions. There are no deaths crueller than these. They are suffering slowly, helplessly, without simple remedial medication, without simple sedation to relieve pain, without mercy."

On the morning of September 11, 2001, two hijacked airliners were deliberately crashed into New York's World Trade Center, causing the collapse of three skyscrapers and the deaths of more than three thousand people. Almost simultaneously, another hijacked airliner was driven into the Pentagon in Washington DC, and a fourth hijacked plane crashed in a field in Pennsylvania. The fourth plane probably was to have made a suicide

attack on the White House or the Capitol, but passengers on the airliner became aware what was happening through their mobile telephones, and they overpowered the hijackers.

Blame for the September 11 attacks soon centered on the wealthy Saudi Arabian Islamic extremist, Osama bin Laden, and on his terrorist organization, al-Qaeda. In a later statement acknowledging responsibility for the terrorist attacks, bin Laden gave as his main reasons firstly the massive US support for Israel, a country that, in his view, was committing atrocities against the Palestinians, and secondly the presence of US troops in Saudi Arabia.

Like Saddam Hussein, Osama bin Laden was an ex-protegé of the CIA, by whom he had previously been armed, trained, and supported. The history of bin Laden's relationship with the CIA began in 1979, when the CIA, acting through Pakistan's Inter-Services Intelligence Agency, began to train and arm the Mujaheddin, an international force of Islamic fundamentalists who were encouraged to attack Afghanistan's secular socialist government.

US National Security Advisor Zbigniew Bryzinski anticipated that the Soviets would respond by sending troops to protect the socialist government of Afghanistan, and he believed that the resulting war would be the Soviet Union's version of Viet Nam: It would be a war that would fatally weaken the Soviet Union. Thus he saw the war that he was provoking in Afghanistan as an important step in the liberation of Eastern Europe. "What is most important in the history of the world?", Polish-born Bryzinski asked in a 1998 interview, "The Taliban, or the collapse of the Soviet empire? Some stirred-up Muslims, or the liberation of central Europe...?" It was, in fact, these same "stirred-up Muslims" who guided two hijacked aircraft into the Twin Towers on September 11, 2001.

During the spring of 2003, our television and newspapers presented us with the spectacle of an attack by two technologically superior powers on a much less industrialized nation, a nation with an ancient and beautiful culture. The ensuing war was one-sided. Missiles guided by laser beams and signals from space satellites were more than a match for less sophisticated weapons.

Speeches were made to justify the attack. It was said to be needed because of weapons of mass destruction (some countries are allowed to have them, others not). It was said to be necessary to get rid of a cruel dictator (whom the attacking powers had previously supported and armed). But the suspicion remained that the attack was resource-motivated. It was about oil.

Looking at the present and threatened conflicts in the Middle East against the background of this history, must we not ask: To what extent are they too about oil?

6.9 Concluding remarks

From the discussion presented above, we can see that our present economic system produces an endless series of resource-motivated wars. In addition to the enormous suffering, waste, injustice and ecological destruction produced by modern wars, we must recognize that in

an era of thermonuclear weapons, war has become prohibitively dangerous. Therefore we need a new economic system.

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Chapter 7

THE WAR MACHINE

7.1 Eisenhower's farewell address

In his famous farewell address, US President Dwight Eisenhower eloquently described the terrible effects of an overgrown Military-industrial complex. Here are his words:

“We have been compelled to create a permanent armaments industry of vast proportions.... This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence, economic, political, even spiritual, is felt in every city, every State house, every office of the Federal government...[and] we must not fail to comprehend its grave implications. Our toil, resources and livelihood are all involved; so is the very structure of our society.

“In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the Military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.”

In another speech, he said: “Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed. This world in arms is not spending money alone. It is spending the sweat of its laborers, the genius of its scientists, the hopes of its children.”

Today the world spends more than 1.7 trillion dollars (\$ 1,700,000,000,000) every year on armaments. This vast river of money, almost too large to be imagined, is the “devil's dynamo” driving the institution of war. Politicians notoriously can be bought with a tiny fraction of this enormous amount; hence the decay of democracy. It is also plain that if the almost unbelievable sums now wasted on armaments were used constructively, most of the pressing problems now facing humanity could be solved.

Because the world spends almost two thousand billion dollars each year on armaments, it follows that very many people make their living from war. This is the reason why it is correct to speak of war as an institution, and why it persists, although we know that it is the cause of much of the suffering that inflicts humanity.

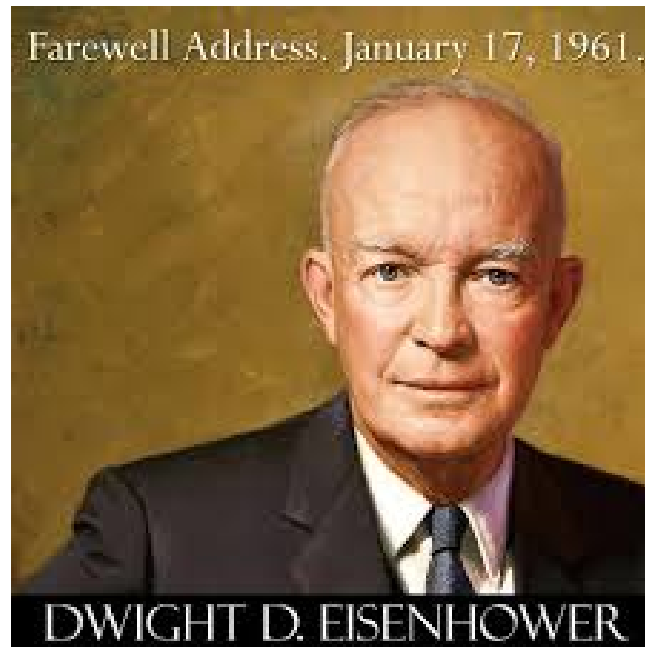


Figure 7.1: “In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the Military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.”



7.2 The threats and costs of war

In the long run, because of the enormously destructive weapons, which have been produced through the misuse of science, the survival of civilization can only be insured if we are able to abolish the institution of war.

Modern warfare has become prohibitively dangerous and destructive because of the enormously powerful weapons that scientists and engineers have developed. The institution of war could not continue without their cooperation. Thus, scientists and engineers throughout the world have a special responsibility.

Wars are driven by the collective paranoia of voters, who are willing to allow colossal sums to be spent by ‘Defense Departments’. But are civilians really defended? Absolutely not!

We can see this most clearly if we think of nuclear war. Nations threaten each other with “Mutually Assured Destruction”, which has the very appropriate acronym MAD. What does this mean? Does it mean that civilians are being protected? Not at all. Instead they are threatened with complete destruction. Civilians here play the role of hostages in the power games of their leaders. Those leaders’ goal is not protection of ordinary people, but rather protection of the gargantuan profits of the military-industrial complex. As the Indian writer Arundhati Roy put it, “Once weapons were manufactured to fight wars. Now wars are manufactured to sell weapons.”

If a thermonuclear war occurs, it will be the end of human civilization and much of the biosphere. This will definitely happen in the future unless the world rids itself of nuclear weapons, since, in the long run, the finite chance of accidental nuclear war happening due to a technical or human failure during a given year will gradually build up into a certainty of disaster. Scientists and engineers must not sell their knowledge and talents to this march towards the precipice.

The direct and indirect costs of war

The costs of war, both direct and indirect, are so enormous that they are almost beyond comprehension. We face a direct threat because a thermonuclear war may destroy human civilization and much of the biosphere, and an indirect threat because the institution of war interferes seriously with the use of tax money for constructive and peaceful purposes.

Today, despite the end of the Cold War, the world spends roughly 1.7 trillion (i.e. 1.7 million million) US dollars each year on armaments. This colossal flood of money could have been used instead for education, famine relief, development of infrastructure, or on urgently needed public health measures.

The World Health Organization lacks funds to carry through an antimalarial program on as large a scale as would be desirable, but the entire program could be financed for less than our military establishments spend in a single day. Five hours of world arms spending is equivalent to the total cost of the 20-year WHO campaign that resulted in the eradication of smallpox. For every 100,000 people in the world, there are 556 soldiers, but only 85 doctors. Every soldier costs an average of \$20,000 per year, while the average spent on



Figure 7.2: Children born with birth defects due to the US use of Agent Orange during the Vietnam War. Source: stopwarcoalition.org

education is only \$380 per school-aged child. With a diversion of funds consumed by three weeks of military spending, the world could create a sanitary water supply for all its people, thus eliminating the cause of almost half of all human illness.

A new drug-resistant form of tuberculosis has recently become widespread in Asia and in the former Soviet Union. In order to combat this new and highly dangerous form of tuberculosis and to prevent its spread, WHO needs \$500 million, an amount equivalent to 1.2 hours of world arms spending.

Today's world is one in which roughly ten million children die every year from starvation or from diseases related to poverty. Besides this enormous waste of young lives through malnutrition and preventable disease, there is a huge waste of opportunities through inadequate education. The rate of illiteracy in the 25 least developed countries is 80%, and the total number of illiterates in the world is estimated to be 800 million. Meanwhile every 60 seconds the world spends \$6.5 million on armaments.

It is plain that if the almost unbelievable sums now wasted on the institution of war were used constructively, most of the pressing problems of humanity could be solved, but today the world spends more than 20 times as much on war as it does on development.

Medical and psychological consequences; loss of life

While in earlier epochs it may have been possible to confine the effects of war mainly to combatants, in the 20th century the victims of war were increasingly civilians, and especially children. For example, according to Quincy Wright's statistics, the First and Second World Wars cost the lives of 26 million soldiers, but the toll in civilian lives was much larger: 64 million.

Since the Second World War, despite the best efforts of the UN, there have been over 150 armed conflicts; and, if civil wars are included, there are on any given day an average of 12 wars somewhere in the world. In the conflicts in Indo-China, the proportion of civilian victims was between 80% and 90%, while in the Lebanese civil war some sources state that the proportion of civilian casualties was as high as 97%.

Civilian casualties often occur through malnutrition and through diseases that would be preventable in normal circumstances. Because of the social disruption caused by war,



Figure 7.3: A little girl cries as medics attend to her injuries at al-Shifa hospital in Gaza in 2014, during the conflict. Photo: UNICEF/Eyad El Baba

normal supplies of food, safe water and medicine are interrupted, so that populations become vulnerable to famine and epidemics.¹

Effects of war on children

According to UNICEF figures, 90% of the casualties of recent wars have been civilians, and 50% children. The organization estimates that in recent years, violent conflicts have driven 20 million children from their homes. They have become refugees or internally displaced persons within their own countries.

During the last decade 2 million children have been killed and 6 million seriously injured or permanently disabled as the result of armed conflicts, while 1 million children have been orphaned or separated from their families. Of the ten countries with the highest rates of death of children under five years of age, seven are affected by armed conflicts. UNICEF estimates that 300,000 child soldiers are currently forced to fight in 30 armed conflicts throughout the world. Many of these have been forcibly recruited or abducted.

Even when they are not killed or wounded by conflicts, children often experience painful psychological traumas: the violent death of parents or close relatives, separation from their families, seeing family members tortured, displacement from home, disruption of ordinary life, exposure to shelling and other forms of combat, starvation and anxiety about the future.²

¹<http://www.cadmusjournal.org/article/volume-2/issue-2-part-3/lessons-world-war-i>
<http://www.truth-out.org/opinion/item/27201-the-leading-terrorist-state>

²<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2080482/>



Figure 7.4: Asylum-seekers in a holding centre on Greece's Samos Island.

Refugees

Human Rights Watch estimates that in 2001 there were 15 million refugees in the world, forced from their countries by war, civil and political conflict, or by gross violations of human rights. In addition, there were an estimated 22 million internally displaced persons, violently forced from their homes but still within the borders of their countries.

In 2001, 78% of all refugees came from ten areas: Afghanistan, Angola, Burma, Burundi, Congo-Kinshasa, Eritrea, Iraq, the Palestinian territories, Somalia and Sudan. A quarter of all refugees are Palestinians, who make up the world's oldest and largest refugee population. 45% of the world's refugees have found sanctuaries in Asia, 30% in Africa, 19% in Europe and 5% in North America.

Refugees who have crossed an international border are in principle protected by Article 14 of the Universal Declaration of Human Rights, which affirms their right "to seek and to enjoy in other countries asylum from persecution". In 1950 the Office of the High Commissioner for Refugees was created to implement Article 14, and in 1951 the Convention Relating to the Status of Refugees was adopted by the UN. By 2002 this legally binding treaty had been signed by 140 nations. However the industrialized countries have recently adopted a very hostile and restrictive attitude towards refugees, subjecting them to arbitrary arrests, denial of social and economic rights, and even forcible return to countries in which they face persecution.

The status of internally displaced persons is even worse than that of refugees who have crossed international borders. In many cases the international community simply ignores their suffering, reluctant to interfere in the internal affairs of sovereign states. In fact, the United Nations Charter is self-contradictory in this respect, since on the one hand it calls for non-interference in the internal affairs of sovereign states, but on the other hand, people everywhere are guaranteed freedom from persecution by the Charter's Universal

Declaration of Human Rights.³

Damage to infrastructure

Most insurance policies have clauses written in fine print exempting companies from payment of damage caused by war. The reason for this is simple. The damage caused by war is so enormous that insurance companies could never come near to paying for it without going bankrupt.

We mentioned above that the world spends 1.7 trillion dollars each year on preparations for war. A similarly colossal amount is needed to repair the damage to infrastructure caused by war. Sometimes this damage is unintended, but sometimes it is intentional.

During World War II, one of the main aims of air attacks by both sides was to destroy the industrial infrastructure of the opponent. This made some sense in a war expected to last several years, because the aim was to prevent the enemy from producing more munitions. However, during the Gulf War of 1990, the infrastructure of Iraq was attacked, even though the war was expected to be short. Electrical generating plants and water purification facilities were deliberately destroyed with the apparent aim of obtaining leverage over Iraq after the war.

In general, because war has such a catastrophic effect on infrastructure, it can be thought of as the opposite of development. War is the greatest generator of poverty.⁴

Ecological damage

Warfare during the 20th century has not only caused the loss of 175 million lives (primarily civilians) - it has also caused the greatest ecological catastrophes in human history. The damage takes place even in times of peace. Studies by Joni Seager, a geographer at the University of Vermont, conclude that “a military presence anywhere in the world is the single most reliable predictor of ecological damage”.

Modern warfare destroys environments to such a degree that it has been described as an “environmental holocaust.” For example, herbicides use in the Vietnam War killed an estimated 6.2 billion board-feet of hardwood trees in the forests north and west of Saigon, according to the American Association for the Advancement of Science. Herbicides such as Agent Orange also made enormous areas of previously fertile land unsuitable for agriculture for many years to come. In Vietnam and elsewhere in the world, valuable agricultural land has also been lost because land mines or the remains of cluster bombs make it too dangerous for farming.

During the Gulf War of 1990, the oil spills amounted to 150 million barrels, 650 times the amount released into the environment by the notorious Exxon Valdez disaster. During

³<https://www.hrw.org/topic/refugees>

⁴<https://www.wsws.org/en/articles/2002/11/iraq-n04.html>
<http://www.globalresearch.ca/crimes-against-humanity-the-destruction-of-iraqs-electricity-infrastructure-the-social-economic-and-environmental-impacts/5355665>
<http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/00157630-EN-ERP-48.PDF>



Figure 7.5: **Image source: Greenpeace**

the Gulf War an enormous number of shells made of depleted uranium were fired. When the dust produced by exploded shells is inhaled it often produces cancer, and it will remain in the environment of Iraq for decades.

Radioactive fallout from nuclear tests pollutes the global environment and causes many thousands of cases of cancer, as well as birth abnormalities. Most nuclear tests have been carried out on lands belonging to indigenous peoples. Agent Orange also produced cancer, birth abnormalities and other serious forms of illness both in the Vietnamese population and among the foreign soldiers fighting in Vietnam⁵

7.3 The threat of nuclear war

As bad as conventional arms and conventional weapons may be, it is the possibility of a catastrophic nuclear war that poses the greatest threat to humanity. There are today roughly 16,000 nuclear warheads in the world. The total explosive power of the warheads that exist or that could be made on short notice is approximately equal to 500,000 Hiroshima bombs.

To multiply the tragedy of Hiroshima by a factor of half a million makes an enormous difference, not only quantitatively, but also qualitatively. Those who have studied the question believe that a nuclear catastrophe today would inflict irreversible damage on our civilization, genetic pool and environment.

Thermonuclear weapons consist of an inner core where the fission of uranium-235 or plutonium takes place. The fission reaction in the core is able to start a fusion reaction in the next layer, which contains isotopes of hydrogen. It is possible to add a casing of ordinary uranium outside the hydrogen layer, and under the extreme conditions produced

⁵<http://www.dailymail.co.uk/news/article-2401378/Agent-Orange-Vietnamese-children-suffering-effects-herbicide-sprayed-US-Army-40-years-ago.html>



Figure 7.6: **The 15 megaton explosion detonated by the United States at Bikini Atoll in 1954 produced lasting biological damage to humans and animals living on the distant Marshall Islands. Today, half a century later, the islanders still experience radiation sickness in the form of leukemia and birth defects. Source: www.theguardian.com**

by the fusion reaction, this ordinary uranium can undergo fission. In this way, a fission-fusion-fission bomb of almost limitless power can be produced.

For a victim of severe radiation exposure, the symptoms during the first week are nausea, vomiting, fever, apathy, delirium, diarrhoea, oropharyngeal lesions and leukopenia. Death occurs during the first or second week.

We can perhaps be helped to imagine what a nuclear catastrophe means in human terms by reading the words of a young university professor, who was 2,500 meters from the hypocenter at the time of the bombing of Hiroshima: “Everything I saw made a deep impression: a park nearby covered with dead bodies... very badly injured people evacuated in my direction... Perhaps most impressive were girls, very young girls, not only with their clothes torn off, but their skin peeled off as well. ... My immediate thought was that this was like the hell I had always read about. ... I had never seen anything which resembled it before, but I thought that should there be a hell, this was it.”

One argument that has been used in favor of nuclear weapons is that no sane political leader would employ them. However, the concept of deterrence ignores the possibility of war by accident or miscalculation, a danger that has been increased by nuclear proliferation and by the use of computers with very quick reaction times to control weapons systems.

Recent nuclear power plant accidents remind us that accidents frequently happen through human and technical failure, even for systems which are considered to be very “safe.” We must also remember the time scale of the problem. To assure the future of humanity, nuclear catastrophe must be avoided year after year and decade after decade. In the long run, the safety of civilization cannot be achieved except by the abolition of nuclear weapons, and ultimately the abolition of the institution of war.

In 1985, International Physicians for the Prevention of Nuclear War received the Nobel

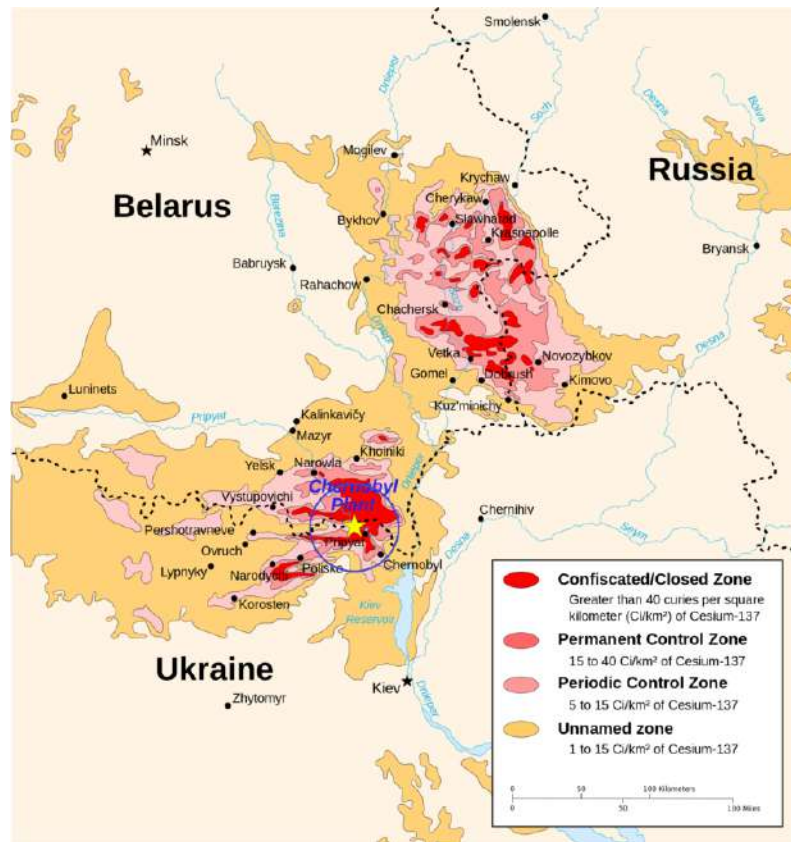


Figure 7.7: A nuclear war would be an ecological disaster, making large portions of the world permanently uninhabitable because of long-lasting radioactivity. Chernobyl radiation map 1996 30km zone by CIA Factbook. Licensed under CC BY-SA 2.5 via Wikimedia Commons.



Figure 7.8: Sculpture depicting Saint George slaying the dragon. The dragon is created from fragments of Soviet SS-20 and United States Pershing nuclear missiles. UN Photo/Milton Grant

Peace Prize. IPPNW had been founded in 1980 by six physicians, three from the Soviet Union and three from the United States. Today, the organization has wide membership among the world's physicians. Professor Bernard Lowen of the Harvard School of Public Health, one of the founders of IPPNW, said in a recent speech:

“...No public health hazard ever faced by humankind equals the threat of nuclear war. Never before has man possessed the destructive resources to make this planet uninhabitable... Modern medicine has nothing to offer, not even a token benefit, in the event of nuclear war...”

“We are but transient passengers on this planet Earth. It does not belong to us. We are not free to doom generations yet unborn. We are not at liberty to erase humanity's past or dim its future. Social systems do not endure for eternity. Only life can lay claim to uninterrupted continuity. This continuity is sacred.”

The danger of a catastrophic nuclear war casts a dark shadow over the future of our species. It also casts a very black shadow over the future of the global environment. The environmental consequences of a massive exchange of nuclear weapons have been treated in a number of studies by meteorologists and other experts from both East and West. They predict that a large-scale use of nuclear weapons would result in fire storms with very high winds and high temperatures, which would burn a large proportion of the wild land fuels in the affected nations. The resulting smoke and dust would block out sunlight for a period of many months, at first only in the northern hemisphere but later also in the southern hemisphere.

Temperatures in many places would fall far below freezing, and much of the earth's plant life would be killed. Animals and humans would then die of starvation. The nuclear winter effect was first discovered as a result of the Mariner 9 spacecraft exploration of Mars in 1971. The spacecraft arrived in the middle of an enormous dust-storm on Mars, and measured a large temperature drop at the surface of the planet, accompanied by a heating of the upper atmosphere. These measurements allowed scientists to check their theoretical models for predicting the effect of dust and other pollutants distributed in planetary atmospheres.

Using experience gained from the studies of Mars, R.P. Turco, O.B. Toon, T. Ackerman, J.B. Pollack and C. Sagan made a computer study of the climatic effects of the smoke and dust that would result from a large-scale nuclear war. This early research project is sometimes called the TTAPS Study, after the initials of the authors.

In April 1983, a special meeting was held in Cambridge, Massachusetts, where the results of the TTAPS Study and other independent studies of the nuclear winter effect were discussed by more than 100 experts. Their conclusions were presented at a forum in Washington, D.C., the following December, under the chairmanship of U.S. Senators Kennedy and Hatfield. The numerous independent studies of the nuclear winter effect all agreed of the following main predictions:

High-yield nuclear weapons exploded near the earth's surface would put large amounts of dust into the upper atmosphere. Nuclear weapons exploded over cities, forests, oilfields and refineries would produce fire storms of the type experienced in Dresden and Hamburg after incendiary bombings during the Second World War. The combination of high-altitude

dust and lower altitude soot would prevent sunlight from reaching the earth's surface, and the degree of obscuration would be extremely high for a wide range of scenarios.

A baseline scenario used by the TTAPS study assumes a 5,000-megaton nuclear exchange, but the threshold for triggering the nuclear winter effect is believed to be much lower than that. After such an exchange, the screening effect of pollutants in the atmosphere might be so great that, in the northern and middle latitudes, the sunlight reaching the earth would be only 1% of ordinary sunlight on a clear day, and this effect would persist for many months. As a result, the upper layers in the atmosphere might rise in temperature by as much as 100 °C, while the surface temperatures would fall, perhaps by as much as 50 °C.

The temperature inversion produced in this way would lead to superstability, a condition in which the normal mixing of atmospheric layers is suppressed. The hydrological cycle (which normally takes moist air from the oceans to a higher and cooler level, where the moisture condenses as rain) would be strongly suppressed. Severe droughts would thus take place over continental land masses. The normal cleansing action of rain would be absent in the atmosphere, an effect which would prolong the nuclear winter.

In the northern hemisphere, forests would die because of lack of sunlight, extreme cold, and drought. Although the temperature drop in the southern hemisphere would be less severe, it might still be sufficient to kill a large portion of the tropical forests, which normally help to renew the earth's oxygen.

The oxygen content of the atmosphere would then fall dangerously, while the concentration of carbon dioxide and oxides of nitrogen produced by firestorms would remain high. The oxides of nitrogen would ultimately diffuse to the upper atmosphere, where they would destroy the ozone layer.

Thus, even when the sunlight returned after an absence of many months, it would be sunlight containing a large proportion of the ultraviolet frequencies which are normally absorbed by the ozone in the stratosphere, and therefore a type of light dangerous to life. Finally, after being so severely disturbed, there is no guarantee that the global climate would return to its normal equilibrium.

Even a nuclear war below the threshold of nuclear winter might have climatic effects very damaging to human life. Professor Paul Ehrlich, of Stanford University, has expressed this in the following words:

"...A smaller war, which set off fewer fires and put less dust into the atmosphere, could easily depress temperatures enough to essentially cancel grain production in the northern hemisphere. That in itself would be the greatest catastrophe ever delivered upon Homo Sapiens, just that one thing, not worrying about prompt effects. Thus even below the threshold, one cannot think of survival of a nuclear war as just being able to stand up after the bomb has gone off."⁶

⁶<http://www.voanews.com/content/pope-francis-calls-for-nuclear-weapons-ban/2909357.html>
<http://www.cadmusjournal.org/article/issue-4/flaws-concept-nuclear-deterrance>
<http://www.countercurrents.org/avery300713.htm>
<https://www.wagingpeace.org/author/john-avery/>
<http://www.commondreams.org/news/2015/08/06/70-years-after-bombing-hiroshima-calls-abolish->

7.4 Flaws in the concept of nuclear deterrence

Before discussing other defects in the concept of deterrence, it must be said very clearly that the idea of “massive nuclear retaliation” is completely unacceptable from an ethical point of view. The doctrine of retaliation, performed on a massive scale, violates not only the principles of common human decency and common sense, but also the ethical principles of every major religion. Retaliation is especially contrary to the central commandment of Christianity which tells us to love our neighbor, even if he or she is far away from us, belonging to a different ethnic or political group, and even if our distant neighbor has seriously injured us. This principle has a fundamental place not only in Christianity but also in Buddhism. “Massive retaliation” completely violates these very central ethical principles, which are not only clearly stated and fundamental but also very practical, since they prevent escalatory cycles of revenge and counter-revenge.

Contrast Christian ethics with estimates of the number of deaths that would follow a US nuclear strike against Russia: Several hundred million deaths. These horrifying estimates shock us not only because of the enormous magnitude of the expected mortality, but also because the victims would include people of every kind: women, men, old people, children and infants, completely irrespective of any degree of guilt that they might have. As a result of such an attack, many millions of people in neutral countries would also die. This type of killing has to be classified as genocide.

When a suspected criminal is tried for a wrongdoing, great efforts are devoted to clar-

nuclear-weapons

<http://www.informationclearinghouse.info/article42488.htm>

<http://www.informationclearinghouse.info/article42492.htm>

<http://www.commondreams.org/views/2015/08/06/hiroshima-and-nagasaki-remembering-power>

<http://human-wrongs-watch.net/2015/07/22/israel-iran-and-the-nuclear-non-proliferation-treaty/>

<http://human-wrongs-watch.net/2015/06/25/militarisms-hostages/>

<http://human-wrongs-watch.net/2015/05/24/the-path-to-zero-dialogues-on-nuclear-dangers-by-richard-falk-and-david-krieger/>

<http://human-wrongs-watch.net/2015/03/30/europe-must-not-be-forced-into-a-nuclear-war-with-russia/>

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<http://www.cadmusjournal.org/article/issue-6/arms-trade-treaty-opens-new-possibilities-u>

<http://eruditio.worldacademy.org/issue-6/article/remember-your-humanity>

<http://www.informationclearinghouse.info/article42568.htm>

<https://firstlook.org/theintercept/2014/09/23/nobel-peace-prize-fact-day-syria-7th-country-bombed-obama/>

<http://www.informationclearinghouse.info/article42577.htm>

<http://www.informationclearinghouse.info/article42580.htm>

<http://human-wrongs-watch.net/2015/08/06/us-unleashing-of-atomic-weapons-against-civilian-populations-was-a-criminal-act-of-the-first-order/>

<http://human-wrongs-watch.net/2015/08/06/hiroshima-and-nagasaki-remembering-the-power-of-peace/>

<http://human-wrongs-watch.net/2015/08/04/atomic-bombing-hear-the-story-setsuko-thurlow/>

<http://human-wrongs-watch.net/2015/08/04/atomic-bombing-hear-the-story-yasuaki-yamashita/>

<http://human-wrongs-watch.net/2015/08/03/why-nuclear-weapons/>

ifying the question of guilt or innocence. Punishment only follows if guilt can be proved beyond any reasonable doubt. Contrast this with the totally indiscriminate mass slaughter that results from a nuclear attack!

It might be objected that disregard for the guilt or innocence of victims is a universal characteristic of modern war, since statistics show that, with time, a larger and larger percentage of the victims have been civilians, and especially children. For example, the air attacks on Coventry during World War II, or the fire bombings of Dresden and Tokyo, produced massive casualties which involved all segments of the population with complete disregard for the question of guilt or innocence. The answer, I think, is that modern war has become generally unacceptable from an ethical point of view, and this unacceptability is epitomized in nuclear weapons.

The enormous and indiscriminate destruction produced by nuclear weapons formed the background for an historic 1996 decision by the International Court of Justice in the Hague. In response to questions put to it by WHO and the UN General Assembly, the Court ruled that “the threat and use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and particularly the principles and rules of humanitarian law.” The only *possible* exception to this general rule might be “an extreme circumstance of self-defense, in which the very survival of a state would be at stake”. But the Court refused to say that even in this extreme circumstance the threat or use of nuclear weapons would be legal. It left the exceptional case undecided. In addition, the World Court added unanimously that “there exists an obligation to pursue in good faith *and bring to a conclusion* negotiations leading to nuclear disarmament in all its aspects under strict international control.”

This landmark decision has been criticized by the nuclear weapon states as being decided “by a narrow margin”, but the structuring of the vote made the margin seem more narrow than it actually was. Seven judges voted against Paragraph 2E of the decision (the paragraph which states that the threat or use of nuclear weapons would be generally illegal, but which mentions as a possible exception the case where a nation might be defending itself from an attack that threatened its very existence.) Seven judges voted for the paragraph, with the President of the Court, Muhammad Bedjaoui of Algeria casting the deciding vote. Thus the Court adopted it, seemingly by a narrow margin. But three of the judges who voted against 2E did so because they believed that no possible exception should be mentioned! Thus, if the vote had been slightly differently structured, the result would have been ten to four.

Of the remaining four judges who cast dissenting votes, three represented nuclear weapons states, while the fourth thought that the Court ought not to have accepted the questions from WHO and the UN. However Judge Schwebel from the United States, who voted against Paragraph 2E, nevertheless added, in a separate opinion, “It cannot be accepted that the use of nuclear weapons on a scale which would - or could - result in the deaths of many millions in indiscriminate inferno and by far-reaching fallout, have pernicious effects in space and time, and render uninhabitable much of the earth, could be lawful.” Judge Higgins from the UK, the first woman judge in the history of the Court, had problems with the word “generally” in Paragraph 2E and therefore voted against it,

but she thought that a more profound analysis might have led the Court to conclude in favor of illegality in all circumstances. Judge Fleischhauer of Germany said in his separate opinion, “The nuclear weapon is, in many ways, the negation of the humanitarian considerations underlying the law applicable in armed conflict and the principle of neutrality. The nuclear weapon cannot distinguish between civilian and military targets. It causes immeasurable suffering. The radiation released by it is unable to respect the territorial integrity of neutral States.”

President Bedjaoui, summarizing the majority opinion, called nuclear weapons “the ultimate evil”, and said “By its nature, the nuclear weapon, this blind weapon, destabilizes humanitarian law, the law of discrimination in the use of weapons... The ultimate aim of every action in the field of nuclear arms will always be nuclear disarmament, an aim which is no longer utopian and which all have a duty to pursue more actively than ever.”

Thus the concept of nuclear deterrence is not only unacceptable from the standpoint of ethics; it is also contrary to international law. The World Courts 1996 advisory Opinion unquestionably also represents the opinion of the majority of the world's peoples. Although no formal plebiscite has been taken, the votes in numerous resolutions of the UN General Assembly speak very clearly on this question. For example the New Agenda Resolution (53/77Y) was adopted by the General Assembly on 4 December 1998 by a massively affirmative vote, in which only 18 out of the 170 member states voted against the resolution.⁷ The New Agenda Resolution proposes numerous practical steps towards complete nuclear disarmament, and it calls on the Nuclear-Weapon States “to demonstrate an unequivocal commitment to the speedy and total elimination of their nuclear weapons and without delay to pursue in good faith and bring to a conclusion negotiations leading to the elimination of these weapons, thereby fulfilling their obligations under Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT)”. Thus, in addition to being ethically unacceptable and contrary to international law, nuclear weapons also contrary to the principles of democracy.

More recently, on 7 July, 2017, the Treaty on the Prohibition of Nuclear Weapons was passed by a massive majority in the General Assembly of the United Nations, It was opposed only by the nuclear weapons states and a few of their allies. The Nuclear Ban Treaty makes it very clear that nuclear weapons are illegal under international law. Although the nuclear weapons states still cling to their world-destroying weapons, it is to be hoped that the force of global public opinion will eventually force them to comply with the law.

Having said these important things, we can now turn to some of the other defects in the concept of nuclear deterrence. One important defect is that nuclear war may occur through accident or miscalculation - through technical defects or human failings. This possibility is made greater by the fact that despite the end of the Cold War, thousands of missiles carrying nuclear warheads are still kept on a “hair-trigger” state of alert with

⁷Of the 18 countries that voted against the New Agenda resolution, 10 were Eastern European countries hoping for acceptance into NATO, whose votes seem to have been traded for increased probability of acceptance.

a quasi-automatic reaction time measured in minutes. There is a constant danger that a nuclear war will be triggered by error in evaluating the signal on a radar screen. For example, the BBC reported recently that a group of scientists and military leaders are worried that a small asteroid entering the earth's atmosphere and exploding could trigger a nuclear war if mistaken for a missile strike.

A number of prominent political and military figures (many of whom have ample knowledge of the system of deterrence, having been part of it) have expressed concern about the danger of accidental nuclear war. Colin S. Grey⁸ expressed this concern as follows: "The problem, indeed the enduring problem, is that we are resting our future upon a nuclear deterrence system concerning which we cannot tolerate even a single malfunction." General Curtis E. LeMay⁹ has written, "In my opinion a general war will grow through a series of political miscalculations and accidents rather than through any deliberate attack by either side." Bruce G. Blair¹⁰ has remarked that "It is obvious that the rushed nature of the process, from warning to decision to action, risks causing a catastrophic mistake."... "This system is an accident waiting to happen."

Today, the system that is supposed to give us security is called Mutually Assured Destruction, appropriately abbreviated as MAD. It is based on the idea of deterrence, which maintains that because of the threat of massive retaliation, no sane leader would start a nuclear war.

One important defect in the concept of deterrence is the fact that nuclear war may occur through accident or miscalculation, through technical defects or human failings, or by terrorism. This possibility is made greater by the fact that despite the end of the Cold War, thousands of missiles carrying nuclear warheads are still kept on "hair-trigger alert" with a quasi-automatic reaction time measured in minutes. There is a constant danger that a nuclear war will be triggered by error in evaluating the signal on a radar screen.

Incidents in which global disaster is avoided by a hair's breadth are constantly occurring. For example, on the night of 26 September, 1983, Lt. Col. Stanislav Petrov, a young software engineer, was on duty at a surveillance center near Moscow. Suddenly the screen in front of him turned bright red.

An alarm went off. It's enormous piercing sound filled the room. A second alarm followed, and then a third, fourth and fifth. "The computer showed that the Americans had launched a strike against us", Petrov remembered later. His orders were to pass the information up the chain of command to Secretary General Yuri Andropov. Within minutes, a nuclear counterattack would be launched. However, because of certain inconsistent features of the alarm, Petrov disobeyed orders and reported it as a computer error, which indeed it was.

Most of us probably owe our lives to his coolheaded decision and knowledge of software systems. The narrowness of this escape is compounded by the fact that Petrov was on duty only because of the illness of another officer with less knowledge of software, who would

⁸Chairman, National Institute for Public Policy

⁹Founder and former Commander in Chief of the United States Strategic Air Command

¹⁰Brookings Institute

have accepted the alarm as real.

Narrow escapes such as this show us clearly that in the long run, the combination of space-age science and stone-age politics will destroy us. We urgently need new political structures and new ethics to match our advanced technology.

Nuclear weapons are criminal! Every war is a crime!

War was always madness, always immoral, always the cause of unspeakable suffering, economic waste and widespread destruction, and always a source of poverty, hate, barbarism and endless cycles of revenge and counter-revenge. It has always been a crime for soldiers to kill people, just as it is a crime for murderers in civil society to kill people. No flag has ever been wide enough to cover up atrocities.

But today, the development of all-destroying modern weapons has put war completely beyond the bounds of sanity and elementary humanity.

Can we not rid ourselves of both nuclear weapons and the institution of war itself? We must act quickly and resolutely before everything that we love in our beautiful world is reduced to radioactive ashes.

7.5 Dangers of nuclear power generation

The Chernobyl disaster

The dangers of nuclear power generation are exemplified by the Chernobyl disaster: On the 26th of April, 1986, during the small hours of the morning, the staff of the Chernobyl nuclear reactor in Ukraine turned off several safety systems in order to perform a test. The result was a core meltdown in Reactor 4, causing a chemical explosion that blew off the reactor's 1,000-ton steel and concrete lid. 190 tons of highly radioactive uranium and graphite were hurled into the atmosphere. The resulting radioactive fallout was 200 times greater than that caused by the nuclear bombs that destroyed Hiroshima and Nagasaki. The radioactive cloud spread over Belarus, Ukraine, Russia, Finland, Sweden and Eastern Europe, exposing the populations of these regions to levels of radiation 100 times the normal background. Ultimately, the radioactive cloud reached as far as Greenland and parts of Asia.

The exact number of casualties resulting from the Chernobyl meltdown is a matter of controversy, but according to a United Nations report, as many as 9 million people have been adversely affected by the disaster. Since 1986, the rate of thyroid cancer in affected areas has increased ten-fold. An area of 155,000 square kilometers (almost half the size of Italy) in Belarus, Ukraine and Russia is still severely contaminated. Even as far away as Wales, hundreds of farms are still under restrictions because of sheep eating radioactive grass.

Public opinion turned against nuclear power generation as a result of the Chernobyl disaster. Had the disaster taken place in Western Europe or North America, its effect on

public opinion would have been still greater. Nevertheless, because of the current energy crisis, and because of worries about global warming, a number of people are arguing that nuclear energy should be given a second chance. The counter-argument is that a large increase in the share of nuclear power in the total spectrum of energy production would have little effect on climate change but it would involve unacceptable dangers, not only dangers of accidents and dangers associated with radioactive waste disposal, but above all, dangers of proliferation of nuclear weapons.

Of the two bombs that destroyed Hiroshima and Nagasaki, one made use of the rare isotope of uranium, U-235, while the other used plutonium. Both of these materials can be made by a nation with a nuclear power generation program.

Reactors and nuclear weapons

Uranium has atomic number 92, i.e., a neutral uranium atom has a nucleus containing 92 positively-charged protons, around which 92 negatively-charged electrons circle. All of the isotopes of uranium have the same number of protons and electrons, and hence the same chemical properties, but they differ in the number of neutrons in their nuclei. For example, the nucleus of U-235 has 143 neutrons, while that of U-238 has 146. Notice that $92+143=235$, while $92+146=238$. The number written after the name of an element to specify a particular isotope is the number of neutrons plus the number of protons. This is called the "nucleon number", and the weight of an isotope is roughly proportional to it. This means that U-238 is slightly heavier than U-235. If the two isotopes are to be separated, difficult physical methods dependent on mass must be used, since their chemical properties are identical. In natural uranium, the amount of the rare isotope U-235 is only 0.7 percent.

A paper published in 1939 by Niels Bohr and John A. Wheeler indicated that it was the rare isotope of uranium, U-235, that undergoes fission. A bomb could be constructed, they pointed out, if enough highly enriched U-235 could be isolated from the more common isotope, U-238. Calculations later performed in England by Otto Frisch and Rudolf Peierls showed that the "critical mass" of highly enriched uranium needed is quite small: only a few kilograms.

The Bohr-Wheeler theory also predicted that an isotope of plutonium, Pu-239, should be just as fissionable as U-235¹¹. Instead of trying to separate the rare isotope, U-235, from the common isotope, U-238, physicists could just operate a nuclear reactor until a sufficient amount of Pu-239 accumulated, and then separate it out by ordinary chemical means.

¹¹Both U-235 and Pu-239 have odd nucleon numbers. When U-235 absorbs a neutron, it becomes U-236, while when Pu-239 absorbs a neutron it becomes Pu-240. In other words, absorption of a neutron converts both these species to nuclei with even nucleon numbers. According to the Bohr-Wheeler theory, nuclei with even nucleon numbers are especially tightly-bound. Thus absorption of a neutron converts U-235 to a highly-excited state of U-236, while Pu-239 is similarly converted to a highly excited state of Pu-240. The excitation energy distorts the nuclei to such an extent that fission becomes possible.

Thus in 1942, when Enrico Fermi and his coworkers at the University of Chicago produced the world's first controlled chain reaction within a pile of cans containing ordinary (nonenriched) uranium powder, separated by blocks of very pure graphite, the chain-reacting pile had a double significance: It represented a new source of energy for mankind, but it also had a sinister meaning. It represented an easy path to nuclear weapons, since one of the by-products of the reaction was a fissionable isotope of plutonium, Pu-239. The bomb dropped on Hiroshima in 1945 used U-235, while the Nagasaki bomb used Pu-239.

By reprocessing spent nuclear fuel rods, using ordinary chemical means, a nation with a power reactor can obtain weapons-usable Pu-239. Even when such reprocessing is performed under international control, the uncertainty as to the amount of Pu-239 obtained is large enough so that the operation might superficially seem to conform to regulations while still supplying enough Pu-239 to make many bombs.

The enrichment of uranium¹² is also linked to reactor use. Many reactors of modern design make use of low enriched uranium (LEU) as a fuel. Nations operating such a reactor may claim that they need a program for uranium enrichment in order to produce LEU for fuel rods. However, by operating their ultracentrifuges a little longer, they can easily produce highly enriched uranium (HEU), i.e., uranium containing a high percentage of the rare isotope U-235, and therefore usable in weapons.

Known reserves of uranium are only sufficient for the generation of 8×10^{20} joules of electrical energy¹³, i.e., about 25 TWy. It is sometimes argued that a larger amount of electricity could be obtained from the same amount of uranium through the use of fast breeder reactors, but this would involve totally unacceptable proliferation risks. In fast breeder reactors, the fuel rods consist of highly enriched uranium. Around the core, is an envelope of natural uranium. The flux of fast neutrons from the core is sufficient to convert a part of the U-238 in the envelope into Pu-239, a fissionable isotope of plutonium.

Fast breeder reactors are prohibitively dangerous from the standpoint of nuclear proliferation because both the highly enriched uranium from the fuel rods and the Pu-239 from the envelope are directly weapons-usable. It would be impossible, from the standpoint of equity, to maintain that some nations have the right to use fast breeder reactors, while others do not. If all nations used fast breeder reactors, the number of nuclear weapons states would increase drastically.

It is interesting to review the way in which Israel, South Africa, Pakistan, India and North Korea¹⁴ obtained their nuclear weapons, since in all these cases the weapons were constructed under the guise of "atoms for peace", a phrase that future generations may someday regard as being tragically self-contradictory.

Israel began producing nuclear weapons in the late 1960's (with the help of a "peaceful" nuclear reactor provided by France, and with the tacit approval of the United States) and the country is now believed to possess 100-150 of them, including neutron bombs. Israel's

¹²i.e. production of uranium with a higher percentage of U-235 than is found in natural uranium

¹³Craig, J.R., Vaughn, D.J. and Skinner, B.J., *Resources of the Earth: Origin, Use and Environmental Impact, Third Edition*, page 210.

¹⁴Israel, India and Pakistan have refused to sign the Nuclear Non-Proliferation Treaty, and North Korea, after signing the NPT, withdrew from it in 2003.

policy is one of visibly possessing nuclear weapons while denying their existence.

South Africa, with the help of Israel and France, also weaponized its civil nuclear program, and it tested nuclear weapons in the Indian Ocean in 1979. In 1991 however, South Africa destroyed its nuclear weapons and signed the NPT.

India produced what it described as a “peaceful nuclear explosion” in 1974. By 1989 Indian scientists were making efforts to purify the lithium-6 isotope, a key component of the much more powerful thermonuclear bombs. In 1998, India conducted underground tests of nuclear weapons, and is now believed to have roughly 60 warheads, constructed from Pu-239 produced in “peaceful” reactors.

Pakistan’s efforts to obtain nuclear weapons were spurred by India’s 1974 “peaceful nuclear explosion”. As early as 1970, the laboratory of Dr. Abdul Qadeer Khan, (a metallurgist who was to become Pakistan’s leading nuclear bomb maker) had been able to obtain from a Dutch firm the high-speed ultracentrifuges needed for uranium enrichment. With unlimited financial support and freedom from auditing requirements, Dr. Khan purchased restricted items needed for nuclear weapon construction from companies in Europe and the United States. In the process, Dr. Khan became an extremely wealthy man. With additional help from China, Pakistan was ready to test five nuclear weapons in 1998. The Indian and Pakistani nuclear bomb tests, conducted in rapid succession, presented the world with the danger that these devastating weapons would be used in the conflict over Kashmir. Indeed, Pakistan announced that if a war broke out using conventional weapons, Pakistan’s nuclear weapons would be used “at an early stage”.

In Pakistan, Dr. A.Q. Khan became a great national hero. He was presented as the person who had saved Pakistan from attack by India by creating Pakistan’s own nuclear weapons. In a Washington Post article¹⁵ Pervez Hoodbhoy wrote: “Nuclear nationalism was the order of the day as governments vigorously promoted the bomb as the symbol of Pakistan’s high scientific achievement and self-respect...” Similar manifestations of nuclear nationalism could also be seen in India after India’s 1998 bomb tests.

Early in 2004, it was revealed that Dr. Khan had for years been selling nuclear secrets and equipment to Libya, Iran and North Korea, and that he had contacts with Al-Qaeda. However, observers considered that it was unlikely that Khan would be tried, since a trial might implicate Pakistan’s army as well as two of its former prime ministers.

Recent assassination attempts directed at Pakistan’s President, Pervez Musharraf, emphasize the precariousness of Pakistan’s government. There a danger that it may be overthrown, and that the revolutionists would give Pakistan’s nuclear weapons to a subnational organization. This type of danger is a general one associated with nuclear proliferation. As more and more countries obtain nuclear weapons, it becomes increasingly likely that one of them will undergo a revolution, during the course of which nuclear weapons will fall into the hands of criminals or terrorists.

If nuclear reactors become the standard means for electricity generation as the result of a future energy crisis, the number of nations possessing nuclear weapons might ultimately be as high as 40. If this should happen, then over a long period of time the chance that one

¹⁵1 February, 2004

or another of these nations would undergo a revolution during which the weapons would fall into the hands of a subnational group would gradually grow into a certainty.

There is also a possibility that poorly-guarded fissionable material could fall into the hands of subnational groups, who would then succeed in constructing their own nuclear weapons. Given a critical mass of highly-enriched uranium, a terrorist group, or an organized criminal (Mafia) group, could easily construct a crude gun-type nuclear explosive device. Pu-239 is more difficult to use since it is highly radioactive, but the physicist Frank Barnaby believes that a subnational group could nevertheless construct a crude nuclear bomb (of the Nagasaki type) from this material.

We must remember the remark of U.N. Secretary General Kofi Annan after the 9/11/2001 attacks on the World Trade Center. He said, "*This time* it was not a nuclear explosion". The meaning of his remark is clear: If the world does not take strong steps to eliminate fissionable materials and nuclear weapons, it will only be a matter of time before they will be used in terrorist attacks on major cities, or by organized criminals for the purpose of extortion. Neither terrorists nor organized criminals can be deterred by the threat of nuclear retaliation, since they have no territory against which such retaliation could be directed. They blend invisibly into the general population. Nor can a "missile defense system" prevent criminals or terrorists from using nuclear weapons, since the weapons can be brought into a port in any one of the hundreds of thousands of containers that enter on ships each year, a number far too large to be checked exhaustively.

Finally we must remember that if the number of nations possessing nuclear weapons becomes very large, there will be a greatly increased chance that these weapons will be used in conflicts between nations, either by accident or through irresponsible political decisions.

On November 3, 2003, Mohamed ElBaradei, Director General of the International Atomic Energy Agency, made a speech to the United Nations in which he called for "limiting the processing of weapons-usable material (separated plutonium and high enriched uranium) in civilian nuclear programs - as well as the production of new material through reprocessing and enrichment - by agreeing to restrict these operations to facilities exclusively under international control." It is almost incredible, considering the dangers of nuclear proliferation and nuclear terrorism, that such restrictions were not imposed long ago.

From the facts that we have been reviewing, we can conclude that if nuclear power generation becomes widespread during a future energy crisis, and if equally widespread proliferation of nuclear weapons is to be avoided, the powers and budget of the IAEA will have to be greatly increased. All enrichment of uranium and Reprocessing fuel rods throughout the world will have to be placed be under direct international control, as has been emphasized by Mohamed ElBaradei. Because this will need to be done with fairness, such regulations will have to hold both in countries that at present have nuclear weapons and in countries that do not. It has been proposed that there should be an international fuel rod bank, to supply new fuel rods and reprocess spent ones. In addition to this excellent proposal, one might also consider a system where all power generation reactors and all research reactors would be staffed by the IAEA.

Nuclear reactors used for "peaceful" purposes unfortunately also generate fissionable

isotopes of not only of plutonium, but also of neptunium and americium. Thus all nuclear reactors must be regarded as ambiguous in function, and all must be put under strict international control. One must ask whether globally widespread use of nuclear energy is worth the danger that it entails.

Let us now examine the question of whether nuclear power generation would appreciably help to prevent global warming. The fraction of nuclear power in the present energy generation spectrum is at present approximately 1/16. Nuclear energy is used primarily for electricity generation. Thus increasing the nuclear fraction would not affect the consumption of fossil fuels used directly in industry, transportation, in commerce, and in the residential sector. Coal is still a very inexpensive fuel, and an increase in nuclear power generation would do little to prevent it from being burned. Thus besides being prohibitively dangerous, and besides being unsustainable in the long run (because of finite stocks of uranium and thorium), the large-scale use of nuclear power cannot be considered to be a solution to the problem of anthropogenic climate change.

Optimists point to the possibility of using fusion of light elements, such as hydrogen, to generate power. However, although this can be done on a very small scale (and at great expense) in laboratory experiments, the practical generation of energy by means of thermonuclear reactions remains a mirage rather than a realistic prospect on which planners can rely. The reason for this is the enormous temperature required to produce thermonuclear reactions. This temperature is comparable to that existing in the interior of the sun, and it is sufficient to melt any ordinary container. Elaborate “magnetic bottles” have been constructed to contain thermonuclear reactions, and these have been used in successful very small scale experiments. However, despite 50 years of heavily-financed research, there has been absolutely no success in producing thermonuclear energy on a large scale, or at anything remotely approaching commercially competitive prices.

7.6 Military-industrial complexes today

“We’re going to take out seven countries in five years”

In an interview with Amy Goodman¹⁶, retired 4-star General Wesley Clark said: “About ten days after 9/11, I went through the Pentagon and I saw Secretary Rumsfeld and Deputy Secretary Wolfowitz. I went downstairs just to say hello to some of the people on the Joint Staff who used to work for me, any one of the generals called me in. He said, “Sir, you’ve got to come in and talk to me a second.” I said, “Well, you’re too busy.” He said, “No, no.” He says, “We’ve made the decision we’re going to war with Iraq.” This was on or about the 20th of September. I said, “We’re going to war with Iraq? Why?” He said, “I don’t know.” He said, “I guess they don’t know what else to do.” So I said, “Well, did they find some information connecting Saddam to al-Qaeda?” He said, “No, no.” He says, “There’s nothing new that way. They just made the decision to go to war with Iraq.” He said, “I guess it’s like we don’t know what to do about terrorists, but we’ve got a good military

¹⁶<https://genius.com/General-wesley-clark-seven-countries-in-five-years-annotated>



Figure 7.9: General Wesley Clark

and we can take down governments.” And he said, “I guess if the only tool you have is a hammer, every problem has to look like a nail.

So I came back to see him a few weeks later, and by that time we were bombing in Afghanistan. I said, “Are we still going to war with Iraq?” And he said, “Oh, it’s worse than that.” He reached over on his desk. He picked up a piece of paper. And he said, “I just got this down from upstairs” - meaning the Secretary of Defense’s office - “today.” And he said, “This is a memo that describes how we’re going to take out seven countries in five years, starting with Iraq, and then Syria, Lebanon, Libya, Somalia, Sudan and, finishing off, Iran.” I said, “Is it classified?” He said, “Yes, sir.” I said, “Well, don’t show it to me.” And I saw him a year or so ago, and I said, “You remember that?” He said, “Sir, I didn’t show you that memo! I didn’t show it to you!”

The global trade in light arms

An important poverty-generating factor in the developing countries is war - often civil war. The five permanent members of the U.N. Security Council are, ironically, the five largest exporters of small arms. Small arms have a long life. The weapons poured into Africa by both sides during the Cold War are still there, and they contribute to political chaos and civil wars that block development and cause enormous human suffering.

The United Nations website on Peace and Security through Disarmament states that

“Small arms and light weapons destabilize regions; spark, fuel and prolong conflicts; obstruct relief programmes; undermine peace initiatives; exacerbate human rights abuses; hamper development; and foster a ‘culture of violence’.”

An estimated 639 million small arms and light weapons are in circulation worldwide, one for every ten people. Approximately 300,000 people are killed every year by these weapons, many of them women and children.

Examples of endemic conflict

In several regions of Africa, long-lasting conflicts have prevented development and caused enormous human misery. These regions include Ethiopia, Eritria, Somalia (Darfur), Chad, Zimbabwe and the Democratic Republic of Congo. In the Congo, the death toll reached 5.4 million in 2008, with most of the victims dying of disease and starvation, but with war as the root cause. In view of these statistics, the international community can be seen to have a strong responsibility to stop supplying small arms and ammunition to regions of conflict. There is absolutely no excuse for the large-scale manufacture and international sale of small arms that exists today.

The Wolfowitz Doctrine

The Wolfowitz Doctrine is the unofficial name given to the early version of the Defense Strategy for the 1990s: The Regional Defense Strategy report for the 1994-99 fiscal years. It was later released by then Secretary of Defense Dick Cheney in 1993. It brazenly advocates that America do everything in its power to retain its global hegemony and superpower status, including ensuring that Russia, China, Iran and other regional powers - but especially Russia - be prevented from attaining enough power to seriously challenge the US. In short, it's another US blueprint for total global supremacy.

There are many quotable passages from the Wolfowitz Doctrine. Here's one which sums up its aims:

“Our first objective is to prevent the re-emergence of a new rival, either on the territory of the former Soviet Union or elsewhere that poses a threat on the order of that posed formerly by the Soviet Union. This is a dominant consideration underlying the new regional defense strategy and requires that we endeavor to prevent any hostile power from dominating a region whose resources would, under consolidated control, be sufficient to generate global power. These regions include Western Europe, East Asia, the territory of the former Soviet Union, and Southwest Asia.”

Similar motives guide US policy today. In February, 2018, US Secretary of Defense James Mattis said: “We will continue to prosecute the campaign against terrorists, but great-power competition - not terrorism - is now the primary focus of US national security.”

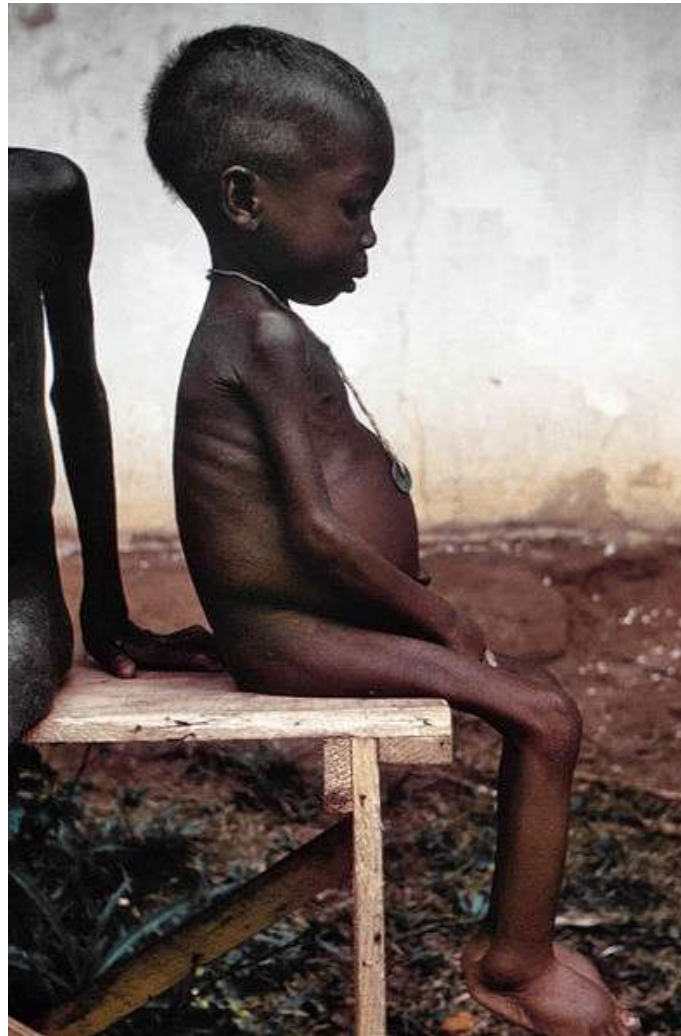


Figure 7.10: 40,000 children die each day from starvation or from poverty-related diseases. Meanwhile, the world spends more than \$1,700,000,000,000 each year on armaments.

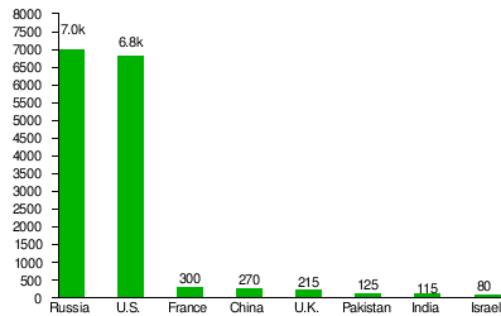


Figure 7.11: Countries by estimated nuclear warhead stockpiles according to the Federation of American scientists.

Militarism in North Korea

The following states are now believed to currently possess nuclear weapons: The United states, Russia, The United Kingdom, France, China, India, Pakistan, North Korea and Israel. The way in which North Korea obtained its nuclear weapons is described by Wikipedia in the following paragraphs:

“The nuclear program can be traced back to about 1962, when North Korea committed itself to what it called ‘all-fortressization’, which was the beginning of the hyper-militarized North Korea of today. In 1963, North Korea asked the Soviet Union for help in developing nuclear weapons, but was refused. The Soviet Union agreed to help North Korea develop a peaceful nuclear energy program, including the training of nuclear scientists. Later, China, after its nuclear tests, similarly rejected North Korean requests for help with developing nuclear weapons.

“Soviet engineers took part in the construction of the Yongbyon Nuclear Scientific Research Center and began construction of an IRT-2000 research reactor in 1963, which became operational in 1965 and was upgraded to 8 MW in 1974. In 1979 North Korea indigenously began to build in Yongbyon a second research reactor, an ore processing plant and a fuel rod fabrication plant. Soviet engineers took part in the construction of the Yongbyon Nuclear Scientific Research Center, and began construction of an IRT-2000 research reactor in 1963, which became operational in 1965 and was upgraded to 8 MW in 1974. In 1979 North Korea indigenously began to build in Yongbyon a second research reactor, an ore processing plant and a fuel rod fabrication plant. ”

Thus like other new nuclear weapons states, North Korea obtained nuclear weapons by misuse of nuclear power generation facilities donated by other countries. In addition, North Korea spend a large fraction of its GDP on conventional armaments. Under the Songun policy, the Korean Peoples Army is the central institution of North Korean society. As of 2016, the Korean Peoples Army had 5,889,000 paramilitary personelle (25% of the population of North Korea) making it the largest paramilitary organization on earth.

Table 7.1: SIPRI Military Expenditure Database, 2016

Rank	Country	Annual Spending \$ Bn.	% of GDP
1	United State	611.2	3.3
2	China	215.7	1.9
3	Russia	69.2	5.3
4	Saudi Arabia	63.7	10
5	India	55.9	2.5
6	France	55.7	2.3
7	United Kingdom	48.3	1.9
8	Japan	46.1	1.0
9	Germany	41.1	1.2
10	South Korea	36.8	2.7
11	Italy	27.9	1.5
12	Australia	24.3	2.0

Table 7.2: SIPRI List of arms manufacturers, 2016

Rank	Company	Country	Annual Arms Sales \$ Mn.
1	Lockheed Martin	United States	40,830
2	Boeing	United States	29,510
3	Raytheon	United States	22,910
4	BAE Systems	United Kingdom	22,700
5	Northrop Grumman	United States	21,400
6	General Dynamics	United States	19,230
7	Airbus	European Union	12,520
8	L-3 Communications	United States	8,890
9	Leonardo-Finmeccanica	Italy	8,500
10	Thales Group	France	8,170
11	United Technologies Corporation	United States	6,870
12	Huntington Ingalls Industries	United States	6,720



Figure 7.12: North Korea's dictator, Kim Jong-un. The doctrine of nuclear deterrence rests on the assumption that political leaders will always act rationally, an assumption that seems very uncertain in the case of the U.S.-North Korean conflict.

The SIPRI Yearbook, 2017

Dan Smith of the Stockholm International Peace Research Institute (SIPRI) wrote the following Introduction to the organization's yearbook for 2017:

"An overall perspective on 2016 finds a balance between negative developments and the continued functioning of the international system. However, the year ended with clear grounds for concern that the balance sheet seemed to be tipping towards the negative amid growing unease about the durability of key parts of the international security architecture.

"Conflicts in the Middle East continued to generate humanitarian tragedies and large-scale movement of refugees, and violent conflict continued in several other parts of the world, most notably Africa, Asia and to a lesser extent Eastern Europe. Developments in North Korea's nuclear programme contributed to international political instability with potentially serious knock-on effects. On the positive side, the 2015 Paris Climate Agreement entered into force in November 2016, the 2015 Iran nuclear deal began implementation on time in early 2016 and the United Nations General Assembly adopted a resolution to start negotiations in 2017 on eliminating nuclear weapons. Progress was also made on work to monitor the unfolding implementation of the UN's Agenda 2030 for international social and economic development. A major contribution to the positive side of the balance sheet in 2016 was the peace agreement in Colombia.

"Nonetheless, virtually all the major global indicators for peace and security have moved in a negative direction: more military spending, increased arms trading, more violent conflicts and the continuing forward march of military technology.

"Existing multilateral and bilateral arms control agreements and processes are also under challenge-not least due to the deteriorating relationship between Russia and the United States-raising questions of global concern and potentially epochal scope. Were the great gains in peaceful relations since the end of the cold war now being reversed? Would the return of strategic competition between the major powers have negative implications for managing increased conflict risk? These uncertainties, combined with political developments in Europe and the USA- especially the vote by the United Kingdom to leave the European Union and the election of Donald J. Trump as US President-seemed to reveal

a much decreased commitment to international institutions and a renewed emphasis in several key states on a narrowly defined national interest.

“The scale of the challenges facing humanity has been summed up in the proposal to adopt the label of ‘the Anthropocene’ for the current era, thus designating it as one in which human activity is the dominant influence on climate and the environment. It is disconcerting to note that such cooperation risks becoming more elusive than it has seemed for most of the time since the end of the cold war, at a time when it is more needed than ever. Experience has shown that international cooperation can work. But is the international cooperative urge as persistent as the problems it needs to address?”

7.7 A culture of violence

Links with the entertainment industry

Here are a few films that glorify war:

- Black Hawk Down
- Top Gun
- Behind Enemy Lines
- Red Dawn (1984)
- American Sniper
- Iron Eagle
- Pearl Harbor
- Act of Valor
- We Were Soldiers
- The Green Berets

Making a game of killing

The mass media are an important part of our educational system. Perhaps it is time to look more closely at the values that they are transmitting. In particular, we should perhaps look at computer games designed for young boys. They often give the strongest imaginable support to a culture of violence.

For example, a game entitled “Full Spectrum Warrior” was recently reviewed in a Danish newspaper. According to the reviewer, “...An almost perfect combination of graphics, sound, band design, and gameplay makes it seem exactly like the film Black Hawk Down - with the player as the main character. This is not just a coincidence, because the game is based on an army training program... Full Spectrum Warrior is an extremely intense experience, and despite the advanced possibilities, the controls are simple enough so that young children can play it... The player is completely drawn into the screen, and remains there until the end of the mission.” The reviewer gave the game six stars (the maximum).

Another genre of computer games has to do with building empires, ignoring the fact that imperialism is morally indefensible. For example, “Forge of Empires” is a browser-based strategy game. It is described as follows: “The game offers a single-player campaign for players to explore and conquer several provinces, gaining resources and new technology as they progress.” Conquering countries for the sake of gaining their resources is an all-too-familiar feature of the modern world. In the game “Forge of Empires”, our young people are indoctrinated with the ethos of resource wars.

During his trial, the Norwegian mass-murderer Anders Behring Breivik described how he trained for his attack on young people on the Island of Utøya using the computer game “Call of Duty: Modern Warfare”. The court also heard how he took what he called a “sabbatical” for a year between the summers of 2006 and 2007. During this year, he played a game called “World of Warcraft” full-time, in the bedroom of his mother’s Oslo flat, spending up to 16 hours a day using the game to distance himself from the human and moral significance of killing.

Is this not similar to the frame of mind of drone operators, sitting in comfort in their Nevada bunkers, distanced from the reality of killing? They are playing a computer game that kills targeted individuals and their families, in remote countries, by remote control. There is no need to look into the eyes of the victims. They are just abstract symbols in a computer game.

7.8 Militarism is the US national religion

Here are some quotations from an article by William Astore entitled *Military Might Is Our National Religion*¹⁷. He lists the following facts to support his thesis:

- **We believe in wars. We may no longer believe in formal declarations of war (not since December 1941 has Congress made one in our name), but that sure hasn’t stopped us from waging them. From Korea to Vietnam, Afghanistan to Iraq, the Cold War to the War on Terror, and so many military interventions in between, including Grenada, Panama, and Somalia, Americans are always fighting somewhere as if we saw great utility in thumbing our noses at the Prince of Peace. (That’s Jesus Christ, if I remember my Catholic catechism correctly.)**
- **We believe in weaponry, the more expensive the better. The underperforming F-35 stealth fighter may cost \$1.45 trillion over its lifetime. An updated nuclear triad (land-based missiles, nuclear submarines, and strategic bombers) may cost that already mentioned \$1.7 trillion. New (and malfunctioning) aircraft carriers cost us more than \$10 billion each. And all such weaponry requests get funded, with few questions asked, despite a history of their redundancy, ridiculously high price, regular cost**

¹⁷Truthout, August 13, 2019

overruns, and mediocre performance. Meanwhile, Americans squabble bitterly over a few hundred million dollars for the arts and humanities.

- We believe in weapons of mass destruction. We believe in them so strongly that we're jealous of anyone nibbling at our near monopoly. As a result, we work overtime to ensure that "infidels" and atheists (that is, the Iranians and North Koreans, among others) don't get them. In historical terms, no country has devoted more research or money to deadly nuclear, biological, and chemical weaponry than the United States. In that sense, we've truly put our money where our mouths are (and where a devastating future might be).
- We believe with missionary zeal in our military and seek to establish our "faith" everywhere. Hence, our global network of perhaps 800 overseas military bases. We don't hesitate to deploy our elite missionaries, our equivalent to the Jesuits, the Special Operations forces to more than 130 countries annually. Similarly, the foundation for what we like to call foreign assistance is often military training and foreign military sales. Our present supreme leader, Pope Trump I, boasts of military sales across the globe, most notably to the "infidel" Saudis. Even when Congress makes what, until recently, was the rarest of attempts to rein in this deadly trade in arms, Pope Trump vetoes it. His rationale: weapons and profits should rule all.
- We believe in our college of cardinals, otherwise known as America's generals and admirals. We sometimes appoint them (or anoint them?) to the highest positions in the land. While Trump's generals - Michael Flynn, James Mattis, H.R. McMaster, and John Kelly - have fallen from grace at the White House, America's generals and admirals continue to rule globally. They inhabit proconsul-like positions in sweeping geographical commands that (at least theoretically) cover the planet and similarly lead commands aimed at dominating the digital-computer realm and special operations. One of them will head a new force meant to dominate space through time eternal. A "strategic" command (the successor to the Strategic Air Command, or SAC, so memorably satirized in Stanley Kubrick's *Dr. Strangelove*) continues to ensure that, at some future moment, the U.S. will be able to commit mass genocide by quite literally destroying the world with nuclear weapons. Indeed, Pope Trump recently boasted that he could end America's Afghan War in a week, apparently through the mass nuclear genocide of (his figure) 10 million Afghans. Even as he then blandly dismissed the idea of wiping that country "off the face of the earth," he openly reflected the more private megalomania of those military professionals funded by the rest of us to think about "the unthinkable". In sum, everything is - theoretically at least - under the

thumbs of our unelected college of cardinals. Their overblown term for it is “full-spectrum dominance,” which, in translation, means they grant themselves god-like powers over our lives and that of our planet (though the largely undefeated enemies in their various wars don’t seem to have acknowledged this reality).

- We believe that freedom comes through obedience. Those who break ranks from our militarized church and protest, like Chelsea Manning, are treated as heretics and literally tortured.
- We believe military spending brings wealth and jobs galore, even when it measurably doesn’t. Military production is both increasingly automated and increasingly outsourced, leading to far fewer good-paying American jobs compared to spending on education, infrastructure repairs of and improvements in roads, bridges, levees, and the like, or just about anything else for that matter.
- We believe, and our most senior leaders profess to believe, that our military represents the very best of us, that we have the “finest” one in human history.
- We believe in planning for a future marked by endless wars, whether against terrorism or “godless” states like China and Russia, which means our military church must be forever strengthened in the cause of winning ultimate victory.



Figure 7.13: The peoples of the world must revolt against the endless wars of their governments. All-destroying modern weapons have made the institution of war prohibitively dangerous.

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Chapter 8

THE DEEP STATE

8.1 Edward Snowden's revelations

Can a government, many of whose operations are secret, be a democracy? Obviously this is impossible. The recent attempts of the United States to arrest whistleblower Edward Snowden call attention to the glaring contradiction between secrecy and democracy.

In a democracy, the power of judging and controlling governmental policy is supposed to be in the hands of the people. It is completely clear that if the people do not know what their government is doing, then they cannot judge or control governmental policy, and democracy has been abolished. There has always been a glaring contradiction between democracy and secret branches of the government, such as the CIA, which conducts its assassinations and its dirty wars in South America without any public knowledge or control.

The gross, wholesale electronic spying on citizens revealed by Snowden seems to be specifically aimed at eliminating democracy. It is aimed at instilling universal fear and conformity, fear of blackmail and fear of being out of step, so that the public will not dare to oppose whatever the government does, no matter how criminal or unconstitutional.

Henry Kissinger famously remarked: "The illegal we do at once. The unconstitutional takes a little longer". Well, Henry, that may have been true in your time, but today the unconstitutional does not take long at all.

The Magna Carta is trashed. No one dares to speak up. Habeas Corpus is trashed. No one dares to speak up. The United Nations Charter is trashed. No one dares to speak up. The Universal Declaration of Human Rights is trashed. No one dares to speak up. The Fourth Amendment to the US Constitution is trashed. No one dares to speak up. The President claims the right to kill both US and foreign citizens, at his own whim. No one dares to speak up.

But perhaps this is unjust. Perhaps some people would dare to protest, except that they cannot get their protests published in the mainstream media. We must remember that the media are owned by the same corporate oligarchs who own the government.

George Orwell, you should be living today! We need your voice today! After Snowden's revelations, the sale of Orwell's "1984" soared. It is now on the bestseller list. Sadly,

Orwell's dystopian prophesy has proved to be accurate in every detail.

What is the excuse for the massive spying reported by Snowden, spying not only on US citizens but also on the citizens of other countries throughout the world? "We want to protect you from terrorism.", the government answers. But terrorism is not a real threat, it is an invented one. It was invented by the military-industrial complex because, at the end of the Cold War, this enormous money-making conglomerate lacked enemies.

Globally, the number of people killed by terrorism is vanishingly small compared to the number of children who die from starvation every year. It is even vanishingly small compared with the number of people who are killed in automobile accidents. It is certainly small compared with the number of people killed in wars aimed at gaining western hegemony over oil-rich regions of the world.

But in Shelley's words, "We are many; they are few!" The people who want democracy greatly outnumber those who profit from maintaining a government based on secrecy and fear. Let us "rise like lions after slumbers, in unvanquishable numbers". Let us abolish governmental secrecy and reclaim our democracy.

8.2 The jaws of power

"Every government degenerates when trusted to the rulers of the people alone. The people themselves, therefore, are its only safe depositories." Thomas Jefferson, (1743-1826)

"The jaws of power are always open to devour, and her arm is always stretched out, if possible, to destroy the freedom of thinking, speaking, and writing." John Adams, (1735-1826)

According to the Nuremberg Principles, the citizens of a country have a responsibility for the crimes that their governments commit. But to prevent these crimes, the people need to have some knowledge of what is going on. Indeed, democracy cannot function at all without this knowledge.

What are we to think when governments make every effort to keep their actions secret from their own citizens? We can only conclude that although they may call themselves democracies, such governments are in fact oligarchies or dictatorships.

At the end of World War I, it was realized that secret treaties had been responsible for its outbreak, and an effort was made to ensure that diplomacy would be more open in the future. Needless to say, these efforts did not succeed, and diplomacy has remained a realm of secrecy.

Many governments have agencies for performing undercover operations (usually very dirty ones). We can think, for example of the KGB, the CIA, M5, or Mossad. How can countries that have such agencies claim to be democracies, when the voters have no knowledge of or influence over the acts that are committed by the secret agencies of their governments?

Nuclear weapons were developed in secret. It is doubtful whether the people of the

United States would have approved of the development of such antihuman weapons, or their use against an already-defeated Japan, if they had known that these things were going to happen. The true motive for the nuclear bombings was also kept secret. In the words of General Groves, speaking confidentially to colleagues at Los Alamos, the real motive was “to control the Soviet Union”.

The true circumstances surrounding the start of the Vietnam war would never have been known if Daniel Ellsberg had not leaked the Pentagon Papers. Ellsberg thought that once the American public realized that their country’s entry into the war was based on a lie, the war would end. It did not end immediately, but undoubtedly Ellsberg’s action contributed to the end of the war.

We do not know what will happen to Julian Assange. If his captors send him to the US, and if he is executed there for the crime of publishing leaked documents (a crime that he shares with the New York Times), he will not be the first martyr to the truth. The ageing Galileo was threatened with torture and forced to recant his heresy - that the earth moves around the sun. Galileo spent the remainder of his days in house arrest. Giordano Bruno was less lucky. He was burned at the stake for maintaining that the universe is larger than it was then believed to be. If Julian Assange becomes a martyr to the truth like Galileo or Bruno, his name will be honored by generations in the future, and the shame of his captors will be remembered too.

8.3 The deep state

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Figure 8.1: The sales of George Orwell's 1984 soared after Snowden's revelations.

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In order to make the American people really fear terrorism, and in order to make them willing to give up their civil liberties, a big event was needed, something like the 9/11 attacks on the World Trade Center.

There is strong evidence, available on the Internet for anyone who wishes to look at it, that the US government knew well in advance that the 9/11 attacks would take place, and that government agents made the disaster worse than it otherwise would have been by planting explosives in the buildings of the World Trade Center. For example, CIA insider Susan Lindauer has testified that the US government knew about the planned attacks as early as April, 2001. Other experts have testified that explosives must have been used to bring the buildings down.

Numerous samples of the dust from the disaster were collected by people in New York City, and chemical analysis of the dust has shown the presence of nanothermite, a compound that produces intense heat. Pools of recently-melted steel were found in the ruins of the buildings before these were sealed off from the public. An ordinary fire does not produce temperatures high enough to melt steel.

Thus it seems probable that the US government participated in the 9/11 attacks, and used them in much the same way that the Nazis used the Reichstag fire, to abridge civil liberties and to justify a foreign invasion. Soon afterward, the Patriot Act was passed. It's Orwellian name is easily understood by anyone who has read "1984".

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Figure 8.2: Susan Lindauer

Governmental secrecy is not something new. Secret diplomacy contributed to the outbreak of World War I, and the secret Sykes-Picot agreement later contributed to the bitterness of conflicts in the Middle East. However, in recent years, governmental secrecy has grown enormously.

The revelations of Edward Snowden and others have shown that the number of people involved in secret operations of the United States government is now as large as the entire population of Norway: roughly 5 million. The influence of this dark side of government has become so great that no president is able to resist it.

In a recent article, John Chuckman remarked that “The CIA is now so firmly entrenched and so immensely well financed (much of it off the books, including everything from secret budget items to the peddling of drugs and weapons) that it is all but impossible for a president to oppose it the way Kennedy did. Obama, who has proved himself to be a fairly weak character from the start, certainly has given the CIA anything it wants. The dirty business of ISIS in Syria and Iraq is one project. The coup in Ukraine is another. The pushing of NATO’s face right against Russia’s borders is another. Several attempted coups in Venezuela are still more. And the creation of a drone air force for extra-judicial killings in half a dozen countries is yet another. They don’t resemble projects we would expect from a smiley-faced intelligent man who sometimes wore sandals and refused to wear a flag pin on his lapel during his first election campaign.”¹

Of course the United States government is by no means alone in practicing excessive secrecy: Scott Horton recently wrote an article entitled *How to Rein in a Secretive Shadow Government Is Our National Security Crisis*. He dedicated the article to the Soviet dissident Andrei Sakharov because, as he said, “Sakharov recognized that the Soviet Union

¹<http://www.informationclearinghouse.info/article41222.htm>

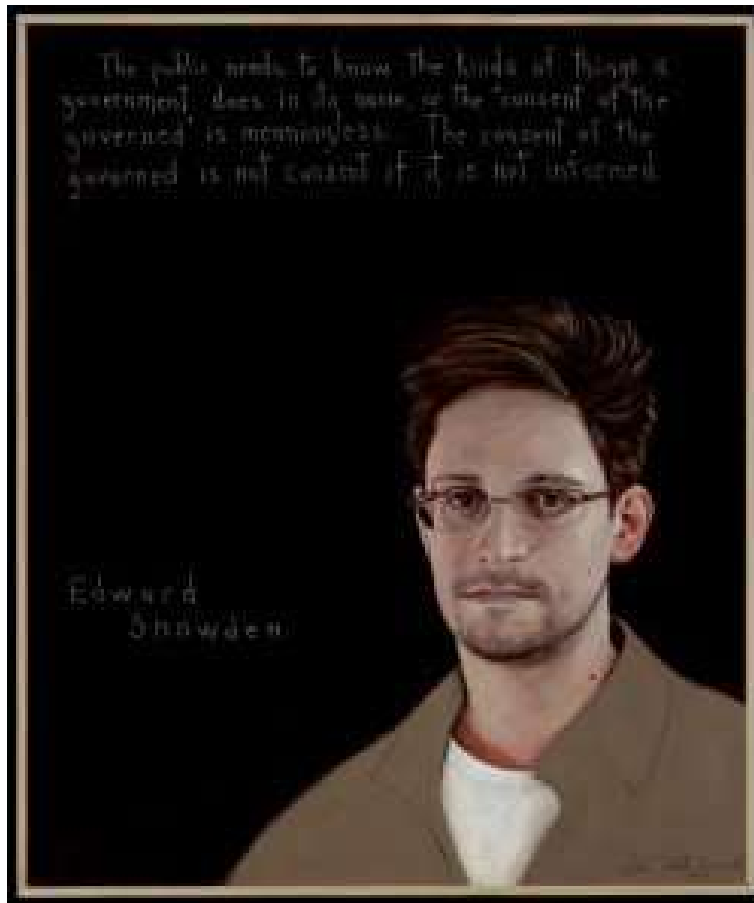


Figure 8.3: The revelations of Edward Snowden and others have shown that the number of people involved in secret operations of the United States government is now as large as the entire population of Norway: roughly 5 million.

rested on a colossal false premise: it was not so much socialism (though Sakharov was certainly a critic of socialism) as it was the obsession with secrecy, which obstructed the search for truth, avoided the exposure of mistakes, and led to the rise of powerful bureaucratic elites who were at once incompetent and prone to violence.”

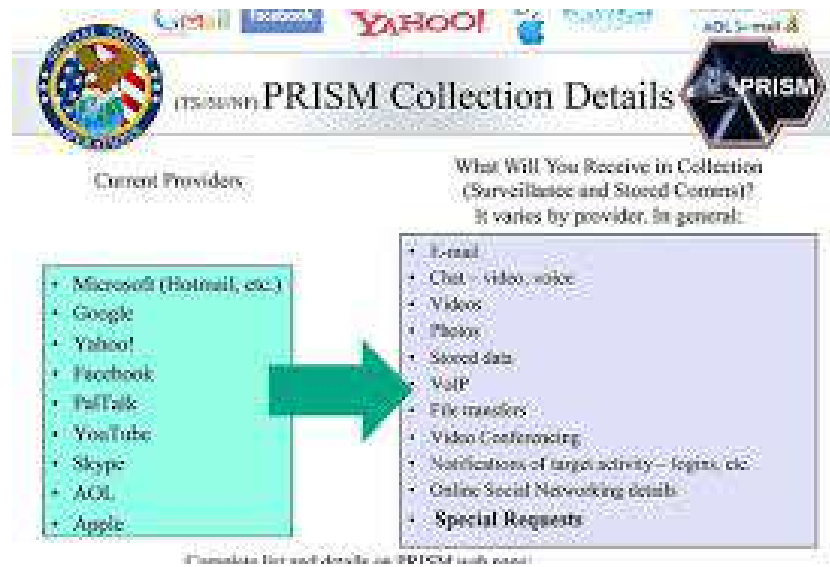


Figure 8.4: One of the power points used by NSA to sell their comprehensive collection of private data.



Figure 8.5: The data of major Internet corporations was stolen without their knowledge or consent.



Figure 8.6: These huge buildings in Fort Meade, Maryland, are the main headquarters of NSA.



Figure 8.7: Angela Merkel's telephone was bugged by NSA. In a cartoon depicting the incident, she says "Tell the Americans to stop listening to our telephone conversations". Her aide replies, "You just did".



Figure 8.8: **Big Brother is watching you.**

8.4 *The United States of Secrets*

A review by *Variety*

Here are some excerpts from *Variety's* review of the first two parts of the series:

“Methodical and comprehensive, *Frontline's* documentary *The United States of Secrets* offers a blow-by-blow account of the Bush administration’s embrace of potentially illegal spying/eavesdropping techniques, President Obama’s decision to continue them (despite campaign promises to the contrary) and, most compellingly, those who sought to blow the whistle on government overreach, culminating with Edward Snowden’s unprecedented dump of classified documents. If the two-part project breaks little new ground, it’s an utterly thorough primer on what transpired that almost plays like a John Le Carre thriller, with remarkably candid interviews from participants on all sides...

“*United States of Secrets* also details the role played by the Fourth Estate, as frustrated officials reluctantly began going to the press, feeling they had no other recourse to beat back constitutional intrusions. Yet the *New York Times*, after nailing down the story, ultimately balked at running it, at the urging of the Bush administration...”

A review by *Network Knowledge*

Another review, by *Network Knowledge*, makes the following comments:

“WSEC/PBS Springfield will premiere a compelling two-part series entitled FRONTLINE - United States of Secrets. These programs go behind the headlines to reveal the dramatic story of how the U.S. government came to monitor and collect the communications of millions of people around the world - including ordinary Americans - and the lengths they went to trying to hide the massive surveillance program from the public.

“In part one, premiering Tuesday, May 13 at 8PM on WSEC/PBS Springfield, FRONTLINE filmmaker Michael Kirk goes inside Washington and the National Security Agency,

piecing together the secret history of the unprecedented surveillance program that began in the wake of September 11 and continues today even after the revelations of its existence by NSA contractor Edward Snowden.

“Then, in part two, premiering Tuesday, May 20 at 9PM, veteran FRONTLINE filmmaker Martin Smith continues the story, exploring the secret relationship between Silicon Valley and the National Security Agency, and investigating how the government and tech companies have worked together to gather and warehouse your data.

“Part political thriller and part spy novel, United States of Secrets series is the definitive history of domestic surveillance in a post 9/11 world. With new revelations about government spying coming out almost daily, the series will be gripping viewing for those who want to understand the context of the Snowden affair and what it means for all Americans.”

8.5 Censorship of the news

Many modern governments have become very expert in manipulating public opinion through mass media. They only allow the public to hear a version of the “news” that has been handed down by powerholders. Of course, people can turn to the alternative media that are available on the Internet. But on the whole, the vision of the world presented on television screens and in major newspapers is the “truth” that is accepted by the majority of the public, and it is this picture of events that influences political decisions. Censorship of the news by the power elite is a form of secrecy, since it withholds information that is needed for a democracy to function properly.

8.6 Coups, torture and illegal killing

During the period from 1945 to the present, the US interfered, militarily or covertly, in the internal affairs of a large number of nations: China, 1945-49; Italy, 1947-48; Greece, 1947-49; Philippines, 1946-53; South Korea, 1945-53; Albania, 1949-53; Germany, 1950s; Iran, 1953; Guatemala, 1953-1990s; Middle East, 1956-58; Indonesia, 1957-58; British Guiana/Guyana, 1953-64; Vietnam, 1950-73; Cambodia, 1955-73; The Congo/Zaire, 1960-65; Brazil, 1961-64; Dominican Republic, 1963-66; Cuba, 1959-present; Indonesia, 1965; Chile, 1964-73; Greece, 1964-74; East Timor, 1975-present; Nicaragua, 1978-89; Grenada, 1979-84; Libya, 1981-89; Panama, 1989; Iraq, 1990-present; Afghanistan 1979-92; El Salvador, 1980-92; Haiti, 1987-94; Yugoslavia, 1999; and Afghanistan, 2001-present, Syria, 2013-present; Egypt, 2013-present, and Ukraine, 2013-present. Most of these interventions were explained to the American people as being necessary to combat communism (or more recently, terrorism), but an underlying motive was undoubtedly the desire to put in place governments and laws that would be favorable to the economic interests of the US and its allies.

For the sake of balance, we should remember that during the Cold War period, the Soviet Union and China also intervened in the internal affairs of many countries, for ex-



Figure 8.9: **Extrajudicial killing of civilians by means of drones is also shrouded by secrecy, and it too is a gross violation of democratic principles.**

ample in Korea in 1950-53, Hungary in 1956, Czechoslovakia in 1968, and so on; another very long list. These Cold War interventions were also unjustifiable, like those mentioned above. Nothing can justify military or covert interference by superpowers in the internal affairs of smaller countries, since people have a right to live under governments of their own choosing even if those governments are not optimal.

Many people in Latin America and elsewhere have been tortured: The long history of CIA torture was recently investigated, but only small portions of the 6000-page report are available to the public. The rest remains secret.

Extrajudicial killing of civilians by means of drones is also shrouded by secrecy, and it too is a gross violation of democratic principles.²

8.7 Secret trade deals

The Trans-Pacific Partnership is one of the trade deals that is currently being negotiated in secret. Not even the US congress is allowed to know the details of the document. However, enough information has been leaked to make it clear that if the agreement is passed, foreign corporations would be allowed to “sue” the US government for loss of profits because of (for example) environmental regulations. The “trial” would be outside the legal system, before a tribunal of lawyers representing the corporations. A similar secret trade deal with Europe, the Trans-Atlantic Trade and Investment Partnership (TTIP), is also being “fast-tracked”. One can hardly imagine greater violations of democratic principles.³

²<http://www.globalresearch.ca/lawless-drone-killings/5355535>

³<http://www.citizen.org/Page.aspx?pid=5411>

<https://www.transcend.org/tms/2015/03/world-at-a-crossroads-stop-the-fast-track-to-a-future-of-global-corporate-rule/>

<http://talkingpointsmemo.com/livewire/princeton-experts-say-us-no-longer-democracy>

We can also consider the “non-discrimination” principle adopted by GATT (the General Agreement on Tariffs and Trade). This principle states that participating countries “cannot discriminate between like products on the basis of the method of production”. This single principle allows multinational commerce to escape from all the humanitarian and environmental reforms that have been achieved since the start of the Industrial Revolution. No matter if the method of production involves destruction of a tropical rain forest, no matter if forced labor was used, we are not allowed to discriminate “on the basis of the method of production”.

The present situation is that agriculture, trade and industry have become global, but the world still lacks adequate institutions at the global level to watch over what is happening and to ensure respect for human needs and respect for the natural environment. Today’s global economic interdependence, instantaneous worldwide communication, and the need for peaceful resolution of international conflicts all call for strong governmental institutions at the global level, but the United Nations today lacks many things that would be necessary if it is to perform such a role: It lacks a legislature with the power to make laws binding on individuals and corporations. It lacks mechanisms for enforcing such laws. And it lacks a large and dependable source of income.

It would be logical to improve the United Nations by giving it the things just mentioned, and by giving it at the same time the task of regulating multinational corporations to ensure that they act in a socially and ecologically responsible manner. It would also be logical to entitle the UN to a fee for acting as a referee in relationships between multinationals and the developing countries. These reforms must come someday because of the logic of our present situation. I hope that they will come soon.

The CEO’s of Wall Street call for less government, more deregulation and more globalization. They are delighted that the work of the reform movement is being undone in the name of “freedom”. But is this really what is needed? We need instead to reform our economic system and to give it both a social conscience and an ecological conscience. Governments already accept their responsibility for education. In the future they must also accept the responsibility for ensuring that their citizens can make a smooth transition from education to secure jobs. The free market alone cannot do this the powers of government are needed. Let us restore democracy! Let us have governments that work for the welfare of all their citizens, rather than for the enormous enrichment of the few!

8.8 Secrecy, democracy and nuclear weapons

Nuclear weapons were developed in secret. The decision to use them on the civilian populations of Hiroshima and Nagasaki in an already-defeated Japan was made in secret. Since 1945, secrecy has surrounded all aspects of nuclear weapons, and for this reason it is clear that they are essentially undemocratic.

Nuclear disarmament has been one of the core aspirations of the international community since the first use of nuclear weapons in 1945. A nuclear war, even a limited one, would have global humanitarian and environmental consequences, and thus it is a responsibility

of all governments, including those of non-nuclear countries, to protect their citizens and engage in processes leading to a world without nuclear weapons.

Now a new process has been established by the United Nations General Assembly, an Open Ended Working Group (OEWG) to Take Forward Multilateral Nuclear Disarmament Negotiations. The OEWG convened at the UN offices in Geneva on May 14, 2013. Among the topics discussed was a Model Nuclear Weapons Convention.

The Model Nuclear Weapons Convention prohibits development, testing, production, stockpiling, transfer, use and threat of use of nuclear weapons. States possessing nuclear weapons will be required to destroy their arsenals according to a series of phases. The Convention also prohibits the production of weapons usable fissile material and requires delivery vehicles to be destroyed or converted to make them non-nuclear capable.

Verification will include declarations and reports from States, routine inspections, challenge inspections, on-site sensors, satellite photography, radionuclide sampling and other remote sensors, information sharing with other organizations, and citizen reporting. Persons reporting suspected violations of the convention will be provided protection through the Convention including the right of asylum.

Thus we can see that the protection of whistleblowers is an integral feature of the Model Nuclear Weapons Convention now being discussed. As Sir Joseph Rotblat (1908-2005, Nobel Laureate 1995) frequently emphasized in his speeches, societal verification must be an integral part of the process of “going to zero” (i.e, the total elimination of nuclear weapons). This is because nuclear weapons are small enough to be easily hidden. How will we know whether a nation has destroyed all of its nuclear arsenal? We have to depend on information from insiders, whose loyalty to the whole of humanity prompts them to become whistleblowers. And for this to be possible, they need to be protected.

In general, if the world is ever to be free from the threat of complete destruction by modern weapons, we will need a new global ethic, an ethic as advanced as our technology. Of course we can continue to be loyal to our families, our localities and our countries. But this must be supplemented by a higher loyalty: a loyalty to humanity as a whole.

8.9 Freedom from fear

In order to justify secrecy, enormous dark branches of government and mass illegal spying, governments say: “We are protecting you from terrorism”. But terrorism is not a real threat, since our chances of dying from a terrorist attack are vanishingly small compared to (for example) preventable disease or an automobile accident. If we are ever to reclaim our democracy, we must free ourselves from fear.

8.10 *Inside Job*

Peter Bradshaw's review in *The Guardian*

"If you're growing, you're not in recession ... right?" The speaker is Hank Paulson, the former US treasury secretary, and, as it happens, the former CEO of Goldman Sachs. In Charles Ferguson's documentary about the great financial crash, Paulson's shrugging remark sums up the attitude of the super-rich banking apparatchiks and their eager political supporters. As long as the bubble's getting bigger, there's no worry about the bubble contracting ... right? But that is not what happens to bubbles. In 2008, the pop was heard around the world.

This film is as gripping as any thriller. Aided by some fascinating interviews, Ferguson lays out an awful story. In the 1980s, the markets and financial services were deregulated, and the driving force for this liberalisation was Alan Greenspan, formidable chairman of the US federal reserve board from 1987 to 2006. Banks and loan companies were freer to gamble with their depositors' money; they were themselves freer to borrow more; they were free to offer investors dizzyingly complex financial instruments, with income streams from different debts bundled up, including high-interest home loans offered to high-risk borrowers - the so-called "sub-prime" market that offered mouthwateringly high returns.

The good times rolled. The banks ballooned. They offered their traders mind-blowing bonuses to encourage risk-taking chutzpah, corporate loyalty, and a neurotically driven pursuit of profit. Ferguson argues that crucially, the banks were allowed to insure against bad debts with credit default swaps - any number of these insurance policies could be purchased against one particular risk. Chillingly, the banks now had a vested interest in selling insanely risky products, as they themselves were lavishly insured with these swaps.

Perhaps the most sensational aspect of this film is Ferguson's contention that the crash corrupted the discipline of economics itself. Distinguished economists from America's Ivy League universities were drafted in by banks to compose reports sycophantically supporting reckless deregulation. They were massively paid for these consultancies. The banks bought the prestige of the academics, and their universities' prestige, too. Ferguson speaks to many of these economists, who clearly thought they were going to be interviewed as wry, dispassionate observers. It is really something to see the expression of shock, outrage and fear on their faces as they realise they're in the dock. One splutters with vexation; another gives vent to a ripe Freudian slip. Asked by Ferguson if he has any regrets about his behaviour, he says: "I have no comments ... uh, no regrets."

This is what Ferguson means by "inside job". There is a revolving door between the banks and the higher reaches of government, and to some extent

the groves of academe. Bank CEOs become government officials, creating laws convenient for their once and future employers.

Perhaps only the pen of Tom Wolfe could do justice to these harassed, bald, middle-aged masters of the universe, as they appear in Ferguson's film. The director shows how their body-language is always the same: somehow more guilty-looking when they are in the White House rose garden in their career pomp, being introduced to the press, than when they are facing openly hostile Senate hearings. They look uneasy, shifty, in weirdly ill-fitting suits, as if they are oppressed by the scrutiny, and worn out, possibly, by the strain of suppressing their own scruples. Their financial capacity far outstrips their capacity for enjoying themselves. They look very unhappy. Occasionally, British figures including Mervyn King and Alistair Darling are to be glimpsed in these photos, reminding us that we Brits have been ardent deregulators, as well.

One of Ferguson's interviewees is Charles Morris, author of *The Two Trillion Dollar Meltdown*, who amusingly discusses the effects this mega-windfall has on the individual banker's mind. He became absurdly rich and "he thought it was because he was smart".

I was reminded of Michael Lewis's *Liar's Poker*, his very funny book about the financial mentality of the 80s boom. He noted that if a regular person won the lottery, he might roll around on the floor, kicking his legs up with glee, but when bankers won their arbitrary lottery, they instead became solemn, pompous, overwhelmed with their own importance and stateliness. Their recklessness and excess coexisted with an almost priestly sense of worth. Even more than rich lawyers, rich bankers felt that their money proved their superior cleverness and also moral worthiness as the generators of prosperity. Yet that prosperity didn't trickle down very far.

Generally, this is the sort of film that is praised because it is not as wacky and tricky as Michael Moore. Yet it is clearly influenced by him - it's like a Moore film with the gags and stunts removed. And it's worth noting that without Moore's pioneering work, this documentary could not have been made.

Once again, the phrase that comes to mind is Milton Friedman's: socialism for the rich, free enterprise for the rest. An ordinary person defaults on his debt, he gets to live in his car. A banker defaults, and the taxpayer can be relied on to bail him out. No wonder the bonuses are back. But what can be done about all this? Ferguson has no answers, other than a faintly unedifying hint that bankers could be brought low if rumours about their systemic addiction to drugs and prostitutes could be made to stick legally - like Al Capone's tax evasion. But only a new political mood for regulation will do, and this still seems far away.

Suggestions for further reading

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2. Michael J. Glennon *National Security and Double Government* (PDF), Harvard National Security Journal. 5, (2014).
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4. Amanda Taub and Max Fisher, *As Leaks Multiply, Fears of a 'Deep State' in America.* The New York Times, (February 16, 2017).
5. Bob Jessop, *The State: Past, Present, Future*, John Wiley & Sons, (2015).
6. Jeremy Scahill, *Donald Trump and the Coming Fall of the American Empire.* The Intercept, (2017-07-22).
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9. Michael Crowley, *The Deep State Is Real.* Politico Magazine, (September-October 2017).
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Chapter 9

THE FAR RIGHT TODAY

9.1 Revival of Nazi ideology after World War II

According to Wikipedia, “Neo-Nazism consists of post-World War II militant social or political movements seeking to revive and implement the ideology of Nazism. Neo-Nazis seek to employ their ideology to promote hatred and attack minorities, or in some cases to create a fascist political state. It is a global phenomenon, with organized representation in many countries and international networks. It borrows elements from Nazi doctrine, including ultranationalism, racism, xenophobia, ableism, homophobia, anti-Romanyism, antisemitism, anti-communism and initiating the Fourth Reich. Holocaust denial is a common feature, as is the incorporation of Nazi symbols and admiration of Adolf Hitler.

“In some European and Latin American countries, laws prohibit the expression of pro-Nazi, racist, anti-Semitic, or homophobic views. Many Nazi-related symbols are banned in many European countries - in particular Germany and Austria - in an effort to curtail neo-Nazism.

“Following the defeat of Nazi Germany, the political ideology of the ruling party, Nazism, was in complete disarray. However, conspiracy theories emerged about Hitler himself, that he had secretly survived the war and fled to South America or elsewhere.

“The Allied Control Council officially dissolved the NSDAP on 10 October 1945, marking the end of “Old” National Socialism. A process of denazification began, and the Nuremberg trials took place, where many major leaders and ideologues were condemned to death by October 1946, others committed suicide. Otto Ernst Remer, leader of the postwar Socialist Reich Party.

“In both the East and West, surviving ex-party members and military veterans assimilated to the new reality and had no interest in constructing a “neo-Nazism.” However, during the 1949 elections a number of National Socialist advocates such as Fritz Rössler had infiltrated the national conservative Deutsche Rechtspartei, which had 5 members elected. Rössler and others left to found the more radical Socialist Reich Party under Otto Ernst Remer. At the onset of the Cold War, the SRP favoured the Soviet Union over the

United States.”



Figure 9.1: Otto Ernst Remer, leader of the postwar Socialist Reich Party.



Figure 9.2: Otto Strasser, leader of the German Social Union, returned from exile to Germany in the mid-1950s.



Figure 9.3: George Lincoln Rockwell, founder of the American Nazi Party and progenitor of subsequent uniformed neo-Nazi groups.



Figure 9.4: The Italian group Ordine Nuovo, banned in 1974, drew influence from the Waffen-SS and Guénonian Traditionalism via Julius Evola.



Figure 9.5: The radicalisation of Flemish activist group the Vlaamse Militanten Orde in the 1970s, energized international neo-Nazism.

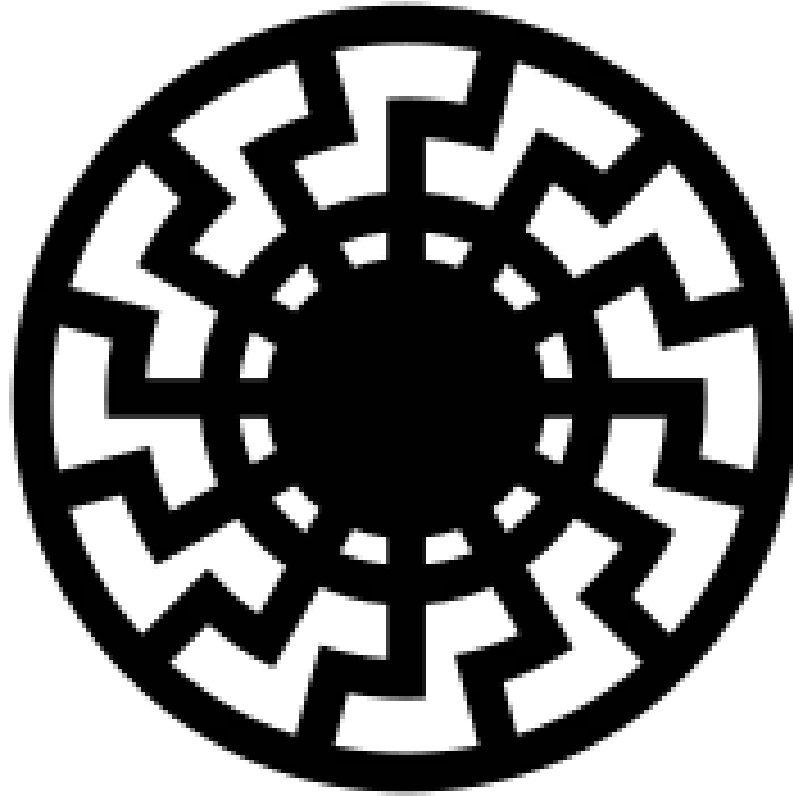


Figure 9.6: Serrano identified Aryan-Hyperborean blood as the “light of the Black Sun”, a symbol found at SS-cult site Wewelsburg Castle.



Figure 9.7: Members of the National Bolshevik Party. “Nazbols” tailor ultra-nationalist themes to a native Russian environment while still employing National Socialist aesthetics.



Figure 9.8: The nearest Italy came to returning to fascism was the 1970 Golpe Borghese of commando veteran Junio Valerio Borghese.

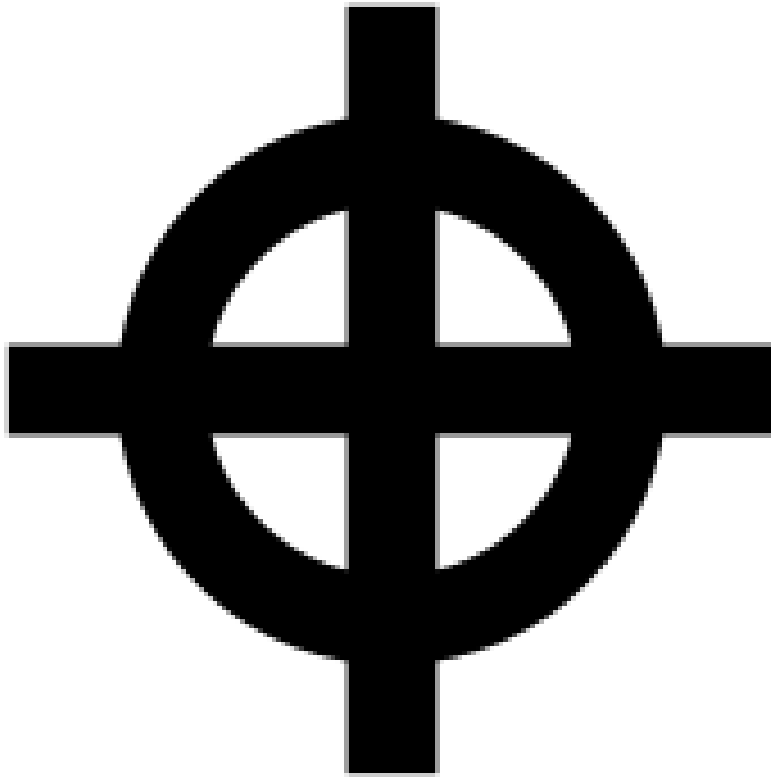


Figure 9.9: French neo-fascist groups adopted the Celtic cross as an ambiguous “Christian and pagan” symbol since the 1940s.



Figure 9.10: Young boy wearing a shirt with a Black Legion sign at a Thompson concert in Croatia.



Figure 9.11: “Hungaria Skins” with a flag evoking the Arrow Cross in 1997.



Figure 9.12: Protesters with neo-Nazi symbols - SS-Volunteer Division “Galicia” and Patriot of Ukraine flags.



Figure 9.13: Ukrainian volunteer battalion members with neo-Nazi Wolfsangel symbol, 24 July 2014.



Figure 9.14: Neo-Nazi skinheads in Spain.



Figure 9.15: Neo-Nazi demonstration in Leipzig, Germany in October 2009.

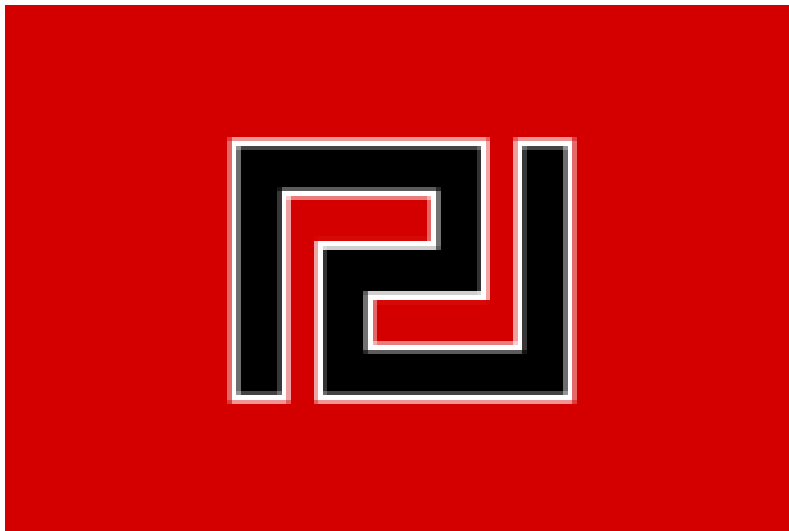


Figure 9.16: Flag of the Golden Dawn (Greece).



Figure 9.17: ONR march in Poznań in November 2015.



Figure 9.18: Neo-Nazism in Russia: The photograph was taken at an anti-gay demonstration in Moscow in October 2010.

9.2 Alt-right

The Associated Press gives the following definition of the alt-right movement:

“The ‘alt-right’ or ‘alternative right’ is a name currently embraced by some white supremacists and white nationalists to refer to themselves and their ideology, which emphasizes preserving and protecting the white race in the United States in addition to, or over, other traditional conservative positions such as limited government, low taxes and strict law-and-order. The movement has been described as a mix of racism, white nationalism and populism ... criticizes ‘multiculturalism’ and more rights for non-whites, women, Jews, Muslims, gays, immigrants and other minorities. Its members reject the American democratic ideal that all should have equality under the law regardless of creed, gender, ethnic origin or race.”

Wikipedia states that “The alt-right, an abbreviation of alternative right, is a loosely connected far-right, white supremacist, white nationalist, white separatist, anti-immigration and sometimes antisemitic movement based in the United States. A largely online phenomenon, the alt-right originated in the U.S. during the 2010s although it has since established a presence in various other countries. The term is ill-defined, having been used in different ways by various self-described ‘alt-rightists’, media commentators, and academics.

“In 2010, the American white nationalist Richard B. Spencer launched The Alternative Right webzine to disseminate his ideas. Spencer’s ‘alternative right’ was influenced by earlier forms of American white nationalism, as well as paleoconservatism, the Dark Enlightenment, and the Nouvelle Droite. Critics charged it with being a rebranding of white supremacism. His term was shortened to “alt-right” and popularised by far-right participants of /pol/, the politics board of web forum 4chan. It came to be associated with other white nationalist websites and groups, including Andrew Anglin’s Daily Stormer, Brad Griffin’s Occidental Dissent, and Matthew Heimbach’s Traditionalist Worker Party...

“The alt-right is a white nationalist, biologically racist movement. Part of its membership supports anti-immigrationist policies to ensure a continued white majority in the United States. Others call for the breakup of the country to form a white separatist ethno-state in North America. Some alt-rightists seek to make white nationalism socially respectable in the U.S., while others - known as the ‘1488’ scene - adopt openly white supremacist and neo-Nazi stances. Some alt-rightists are anti-semitic, promoting a conspiracy theory that there is a Jewish plot to bring about white genocide; other alt-rightists view most Jews as members of the white race. The alt-right is anti-feminist, advocates for a more patriarchal society, and intersects with the men’s rights movement and other sectors of the online manosphere...

“Membership was overwhelmingly white and male, with academic and anti-fascist observers linking its growth to deteriorating living standards and prospects, anxieties about the place of white masculinity, and anger at increasingly visible left-wing forms of identity politics like the Black Lives Matter movement. Constituent groups using the “alt-right” label have been characterized as hate groups,[2][3] while alt-right material has been a contributing factor in the radicalization of young white men responsible for a range of far-right



Figure 9.19: Prominent alt-rightists were instrumental in organizing the "Unite the Right" rally in Charlottesville, Virginia in August 2017. Here, rally participants carry Confederate battle flags, Gadsden flags and a Nazi flag.

murders and terrorist attacks in the U.S. since 2014."

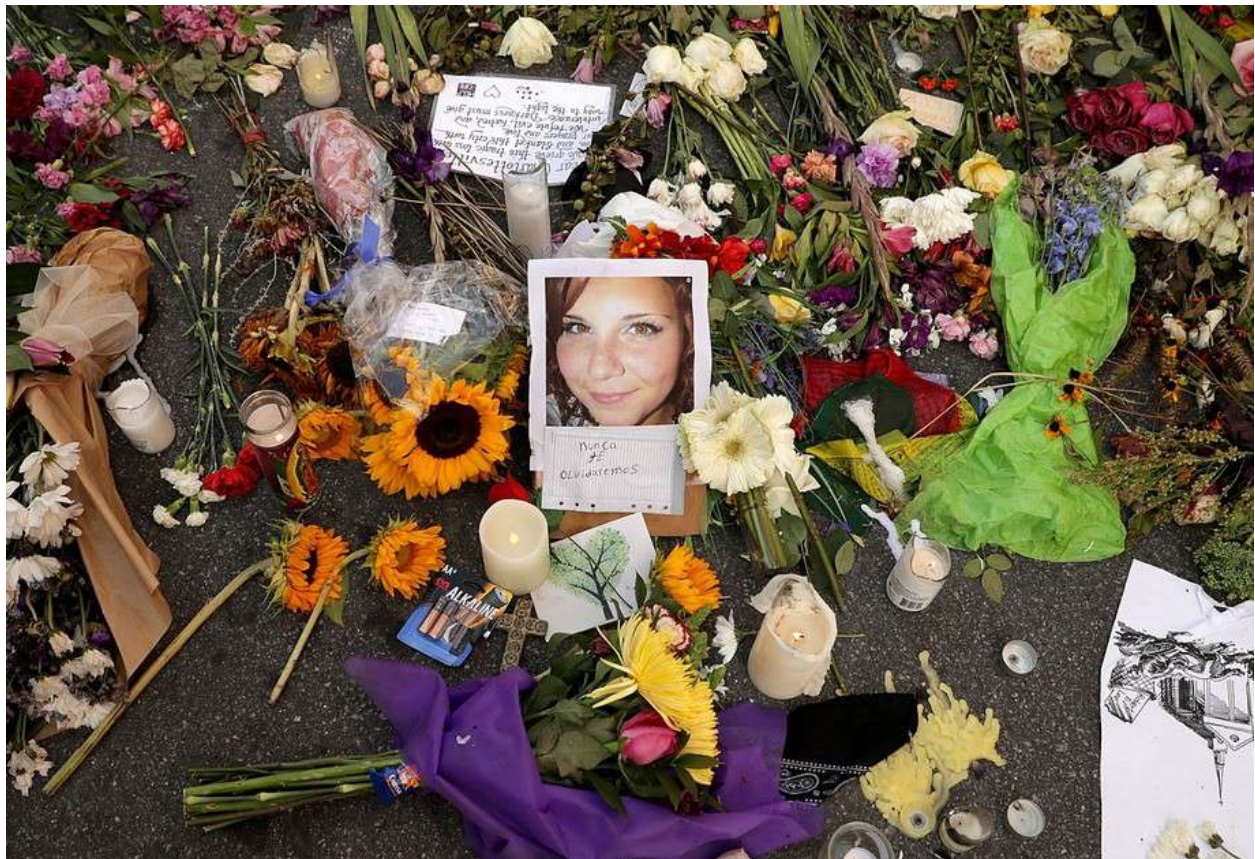


Figure 9.20: Heather Heyer was murdered in 2017 by a white nationalist rally participant in Charlottesville. Since then, mass shootings in Poway, Gilroy, and El Paso and elsewhere have been each linked to white nationalist beliefs.



Figure 9.21: Breitbart News amplified and popularised alt-right ideas under the editorship of “alt-lite” figure Steve Bannon.



Figure 9.22: The alt-right largely rallied behind the presidential candidacy of Donald Trump, although he later distanced himself from the movement.



Figure 9.23: A participant at the Unite the Right rally giving a Nazi salute in front of counter-protesters.



Figure 9.24: The alt-rightist was then punched in an altercation with counter-protesters.



Figure 9.25: Protestors at the 2017 Unite the Right rally, which was promoted by the alt-right. One man carries the logo of Vanguard America, and another has a t-shirt praising German Nazi leader Adolf Hitler.



Figure 9.26: An attendee at the Unite the Right rally carrying a firearm and wearing a Confederate Battle Flag T-shirt.



Figure 9.27: “Trump is Alt-Right with Us.” Anti-Trump protesters highlight what they regard as his links to the alt-right and to historical fascism by dressing as Hitler and Mussolini.

9.3 The Klu Klux Klan

Following the defeat of the Confederate states in the US Civil War, the original Klu Klux Klan was established in the south to overthrow northern rule, and to terrorize freed slaves who were thought to be a threat to white womanhood. Large numbers of black people and their sympathizers were lynched and murdered by the original KKK. The organization was outlawed in 1871.

The Klu Klux Klan was revived in 1915, inspired by D.W. Griffith's influential but controversial film *The Birth of a Nation*, which depicted the original Klan in a positive light. In this second incarnation which lasted until the mid-1920's, the KKK sought to maintain Protestant white supremacy, and opposed both Roman Catholicism and the influence of Jews.

The third incarnation of the Klu Klux Klan came in the 1950's. Local groups have opposed civil rights activists, and murdered many of them. The KKK is classified as a hate group by the Anti-Defamation League.

Wikipedia states that "The second and third incarnations of the Ku Klux Klan made frequent references to America's 'Anglo-Saxon' blood, hearkening back to 19th-century nativism. Although members of the KKK swear to uphold Christian morality, virtually every Christian denomination has officially denounced the KKK".



Figure 9.28: KKK rally in Chicago, c. 1920.



Figure 9.29: Three Ku Klux Klan members at a 1922 parade. Trump's father was a well-known Klansman in New York and New Jersey in his hey days.



Figure 9.30: Cross burning was introduced by William J. Simmons, the founder of the second Klan in 1915.



Figure 9.31: Klu Klux Klan members at a cross burning in 2005.



Figure 9.32: Sheet music to “We Are All Loyal Klansmen”, 1923.



Figure 9.33: Klu Klux Klan members march down Pennsylvania Avenue in Washington, D.C. in 1928.



Figure 9.34: Historically, the Klu Klux Klan has been responsible for innumerable lynchings.

9.4 Proud Boys

Wikipedia states that “The Proud Boys is a far-right neo-fascist organization which admits only men as members and promotes political violence. It is based in the United States and has a presence in Canada, Australia, and the United Kingdom. The group was started in 2016 by Vice Media co-founder and former commentator Gavin McInnes, taking its name from the song ‘Proud of Your Boy’ from the Disney film Aladdin. Proud Boys emerged as part of the alt-right, but in early 2017, McInnes began distancing himself from the alt-right, saying the alt-right’s focus is race while his focus is what he defines as ‘Western values’. This re-branding effort intensified after the Unite the Right Rally ¹.

“The group sees men - especially white men - and Western culture as under siege; their views have elements of white genocide conspiracy theory. While the group claims it does not support white supremacist views, its members often participate in racist rallies, events, and organizations. The organization glorifies violence, and members engage in violence at events it attends; the Southern Poverty Law Center (SPLC) has called it an ‘alt-right fight club’.

“The organization has been described as a hate group by the Southern Poverty Law Center and NPR’s The Takeaway, and Spencer, McInnes, and the Proud Boys have been described as hipster racists by Vox and Media Matters for America. McInnes says victim mentality of women and other historically oppressed groups is unhealthy: ‘There is an incentive to be a victim. It is cool to be a victim.’ He sees white men and Western culture as ‘under siege’ and described criticism of his ideas as “victim blaming”. Their views have elements of white genocide conspiracy theory. The group is part of the ‘alt lite’ and it is ‘overtly Islamophobic’...

“The organization glorifies political violence against leftists, re-enacting political assassinations, wearing shirts that praise Augusto Pinochet’s murders of leftists, and participating directly in political violence. McInnes has said ‘I want violence, I want punching in the face. I’m disappointed in Trump supporters for not punching enough.’ He stated, ‘We don’t start fights [...] but we will finish them.’ Heidi Beirich, the Intelligence Project director for the Southern Poverty Law Center, said that this form of intentional aggression was not common among far-right groups in the past; she said: ‘We’re going to show up and we’re intending to get in fights, that’s a new thing.’ In August 2018, Twitter shut down the official account for the group, as well as McInnes’ account, under its policy prohibiting violent extremist groups; at the time, the group’s profile photo was a member punching a counter-protester.

¹Wikipedia describes this event as follows: “The Unite the Right rally was a white supremacist rally that occurred in Charlottesville, Virginia, from August 11 to 12, 2017. Protesters were members of the far-right and included self-identified members of the alt-right, neo-Confederates, neo-fascists,[13] white nationalists, neo-Nazis, Klansmen, and various right-wing militias. The marchers chanted racist and antisemitic slogans, carried semi-automatic rifles, Nazi and neo-Nazi symbols (such as the swastika, Odal rune, Black Sun, and Iron Cross), the Valknut, Confederate battle flags, Deus Vult crosses, flags and other symbols of various past and present anti-Muslim and antisemitic groups.”



Figure 9.35: Proud Boys founder Gavin McInnes.



Figure 9.36: A member of Proud Boys.

9.5 Evangelicals

Here is an excerpt from a December 31, 2018 article in the New York Times by Katherine Stewart:

The month before the 2018 midterms, a thousand theaters screened “The Trump Prophecy,” a film that tells the story of Mark Taylor, a former firefighter who claims that God told him in 2011 that Donald Trump would be elected president.

At a critical moment in the film, just after the actor representing Mr. Taylor collapses in the flashing light of an epiphany, he picks up a Bible and turns to the 45th chapter of the book of Isaiah, which describes the anointment of King Cyrus by God. In the next scene, we hear Mr. Trump being interviewed on “The 700 Club,” a popular Christian television show.

As Lance Wallnau, an evangelical author and speaker who appears in the film, once said, “I believe the 45th president is meant to be an Isaiah 45 Cyrus,” who will “restore the crumbling walls that separate us from cultural collapse.”

Cyrus, in case you’ve forgotten, was born in the sixth century B.C.E. and became the first emperor of Persia. Isaiah 45 celebrates Cyrus for freeing a population of Jews who were held captive in Babylon. Cyrus is the model for a nonbeliever appointed by God as a vessel for the purposes of the faithful.

The identification of the 45th president with an ancient Middle Eastern potentate isn’t a fringe thing. “The Trump Prophecy” was produced with the help of professors and students at Liberty University, whose president, Jerry Falwell Jr., has been instrumental in rallying evangelical support for Mr. Trump. Jeanine Pirro of Fox News has picked up on the meme, as has Ron Dermer, the Israeli ambassador to the United States, among many others.

As the Trump presidency falls under siege on multiple fronts, it has become increasingly clear that the so-called values voters will be among the last to leave the citadel. A lot of attention has been paid to the supposed paradox of evangelicals backing such an imperfect man, but the real problem is that our idea of Christian nationalism hasn’t caught up with the reality. We still buy the line that the hard core of the Christian right is just an interest group working to protect its values. But what we don’t get is that Mr. Trump’s supposedly anti-Christian attributes and anti-democratic attributes are a vital part of his attraction.

Today’s Christian nationalists talk a good game about respecting the Constitution and America’s founders, but at bottom they sound as if they prefer autocrats to democrats. In fact, what they really want is a king. “It is God that raises up a king,” according to Paula White, a prosperity gospel preacher who has advised Mr. Trump.

Ralph Drollinger, who has led weekly Bible study groups in the White House attended by Vice President Mike Pence and many other cabinet members, likes the word “king” so much that he frequently turns it into a verb. “Get ready



Figure 9.37: Apparently insanity rules the United States today. The Evangelical Right believes that Trump was sent by God to be King, despite the fact that, according to Glenn Kessler, author of the Washington Post’s Fact Checker column, Trump told an average of 15 lies per day in 2018, bringing the total number of documented lies since he took office in January 2017 to 7,645. But neither Trump’s lies, nor his racism and mysogeny, nor his cruel authorization of imprisonment of very young children and even babies, are his worst crimes. His most serious offense is a crime against human civilization and the biosphere: his support for coal, his climate change denial, his sabotaging of renewable energy, and his withdrawal from the Paris agreement. These actions, and support for them by Republicans, caused Noam Chomsky to call the Republican Party “the most dangerous organization in history”.

to king in our future lives,” he tells his followers. “Christian believers will - soon, I hope - become the consummate, perfect governing authorities!”

The great thing about kings like Cyrus, as far as today’s Christian nationalists are concerned, is that they don’t have to follow rules. They are the law. This makes them ideal leaders in paranoid times.



Figure 9.38: An artist's impression of Trump's National Security Advisor John Bolton.



Figure 9.39: Stars and stripes.



Figure 9.40: Anit-Mexican language used by Trump is very similar to the language used by the El Paso mass murderer. A recent article *Ex-FBI Official, FBI reluctant to probe white supremacists because Trump considers them his base*, quotes Dave Gomez as saying “There’s some reluctance among agents to bring forth an investigation that targets what the president perceives as his base.”



Figure 9.41: Family members mourning the victims of the El Paso murders.



Figure 9.42: A woman lights a candle at a makeshift memorial outside Walmart, near the scene of a mass shooting which left 22 people dead, on August 4, 2019, in El Paso, Texas.

9.6 The El Paso mass murders

On the morning of August 3, 2019, 21-year-old Patrick Wood Crusius, a Republican follower of Donald Trump, walked into a Walmart in El Paso Texas. carrying an AK-47 automatic weapon. He opened fire on the largely Latino customers, killing 22 people and seriously injuring 24 others. In a manifesto, which he published on the Internet just before the murders, he wrote “In general, I support the Christchurch shooter and his manifesto. This attack is a response to the Hispanic invasion of Texas. They are the instigators, not me. I am simply defending my country from cultural and ethnic replacement brought on by an invasion.” The language and ideas used by Crusius are similar to those of Donald Trump, who often speaks of a Mexican invasion.

The following day, there was another mass shooting, this time in Dayton, Ohio. Again an automatic attack rifle was used. Nine people were killed.

Between January and February, 2019, President Donald Trump’s Facebook page ran about 2,200 ads referring to immigration as an “invasion”.

9.7 Right-wing parties in Europe and elsewhere.

Brexit

Across the developed world, the reaction to threatened migration of refugees from climate change has been less than generous, to say the least. The recent decision of Britain to leave the European Union was motivated largely by the fear of British workers that EU laws would force their country to accept large numbers of refugees.

Swings to the right in Europe

In Germany, Angela Merkel’s generous policies towards refugees have cost her votes, while an openly racist party, the Alternative for Germany (AfD) party, has gained in strength. Frauke Petry, 40, the party’s leader, has said border guards might need to turn guns on anyone crossing a frontier illegally. The party’s policy platform says “Islam does not belong in Germany” and calls for a ban on the construction of mosques.

In September, 2017, eight people from the neo-Nazi Freital Group were put on trial in Dresden for bomb attacks on homes for asylum applicants. Hundreds of similar assaults occur in Germany every year, but they had never before been tried as terrorism in a federal court.

In the German election, which took place on Sunday, October 1, 2017, Angela Merkel won a fourth term as Chancellor, but her party won only 33% of the votes, a percentage much reduced from the 41% won in the election of 2013. Angela Merkel was paying a high price for her refugee-friendly policies.

Meanwhile the far right anti-immigration AfD party made a historic breakthrough, winning 13.5% of the vote, thus becoming the first overtly nationalist party to sit in the

Bundestag in 60 years. The Greens have already complained that “Nazis have returned to parliament”. In fact, members of the AfD party have begun to say that Germans should stop being ashamed of their country’s Nazi past.

In France, the National Front is a nationalist party that uses populist rhetoric to promote its anti-immigration and anti-European Union positions. The party favors protectionist economic policies and would clamp down on government benefits for immigrants.

Similarly, in the Netherlands, the anti-European Union, anti-Islam Party for Freedom has called for closing all Islamic schools and recording the ethnicity of all Dutch citizens. In early November, the party was leading in polls ahead of next year’s parliamentary elections.

Other far-right anti-immigrant parties in Europe include Golden Dawn (Greece), Jobbik (Hungary), Sweden Democrats (Sweden), Freedom Party (Austria), and People’s Party - Our Slovakia (Slovakia). All of these parties have gained in strength because of the widespread fear of immigration.

Populism in the United States

The election of Donald Trump, who ran for President in 2016 on an openly racist and anti-immigrant platform, can also be seen as the result of fear of immigration, especially on the part of industrial workers.

A more humane response to the refugee crisis

In the long-term future, climate change will make the refugee crisis much more severe. Heat and drought will make large regions of the world uninhabitable, and will threaten many populations with famine. The severity of the refugee crisis will depend on how quickly we reduce greenhouse gas emissions.

While making many parts of the world uninhabitable, long-term climate change will make other regions more suitable for human habitation and agriculture. For example, farming will become more possible in Siberia, Greenland, the Canadian Arctic, Alaska and Patagonia. A humane response to the refugee crisis could include the generous opening of these regions to refugees.

The global population of humans is currently increasing by almost a billion people every decade. Global population must be stabilized, and in the long run, gradually reduced. Money currently wasted (or worse than wasted) on armaments could be used instead to promote universal primary health care, and with it, universal access to the knowledge and materials needed for family planning.

Finally, reduced consumption of meat, particularly beef, would shorten the food chain thus make more food available for famine relief.

9.8 Trump copies Hitler's rhetoric

Book review: *When at Times the Mob Is Swayed*

Below are some quotations from an article by Steven Rosenfeld, published by *Common Dreams* on Friday, August 9, 2019. Rosenfeld's article is a review of a book by Bert Neuborne entitled *When at Times the Mob Is Swayed: A Citizen's Guide to Defending Our Republic*.

Neuborne doesn't make this comparison [between Trump and Hitler] lightly. His 55-year career began by challenging the constitutionality of the Vietnam War in the 1960s. He became the ACLU's national legal director in the 1980s under Ronald Reagan. He was founding legal director of the Brennan Center for Justice at New York University Law School in the 1990s. He has been part of more than 200 Supreme Court cases and Holocaust reparation litigation.

"Why does an ignorant, narcissistic buffoon like Trump trigger such anxiety? Why do so many Americans feel it existentially (not just politically) important to resist our forty-fifth president?" he writes. "Partly it's just aesthetics. Trump is such a coarse and appalling man that it's hard to stomach his presence in Abraham Lincoln's house. But that's not enough to explain the intensity of my dread. LBJ was coarse. Gerald Ford and George W. Bush were dumb as rocks. Richard Nixon was an anti-Semite. Bill Clinton's mistreatment of women dishonored his office. Ronald Reagan was a dangerous ideologue. I opposed each of them when they appeared to exceed their constitutional powers. But I never felt a sense of existential dread. I never sensed that the very existence of a tolerant democracy was in play."

A younger Trump, according to his first wife's divorce filings, kept and studied a book translating and annotating Adolf Hitler's pre-World War II speeches in a locked bedside cabinet, Neuborne noted. The English edition of *My New Order*, published in 1941, also had analyses of the speeches' impact on his era's press and politics. "Ugly and appalling as they are, those speeches are masterpieces of demagogic manipulation," Neuborne says.

"Watching Trump work his crowds, though, I see a dangerously manipulative narcissist unleashing the demagogic spells that he learned from studying Hitler's speeches - spells that he cannot control and that are capable of eroding the fabric of American democracy," Neuborne says. "You see, we've seen what these rhetorical techniques can do. Much of Trump's rhetoric - as a candidate and in office - mirrors the strategies, even the language, used by Adolf Hitler in the early 1930s to erode German democracy."

Many Americans may seize or condemn Neuborne's analysis, which has more than 20 major points of comparison. The author repeatedly says his goal is not "equating" the men - as "it trivializes Hitler's obscene crimes to compare them to Trump's often pathetic foibles."

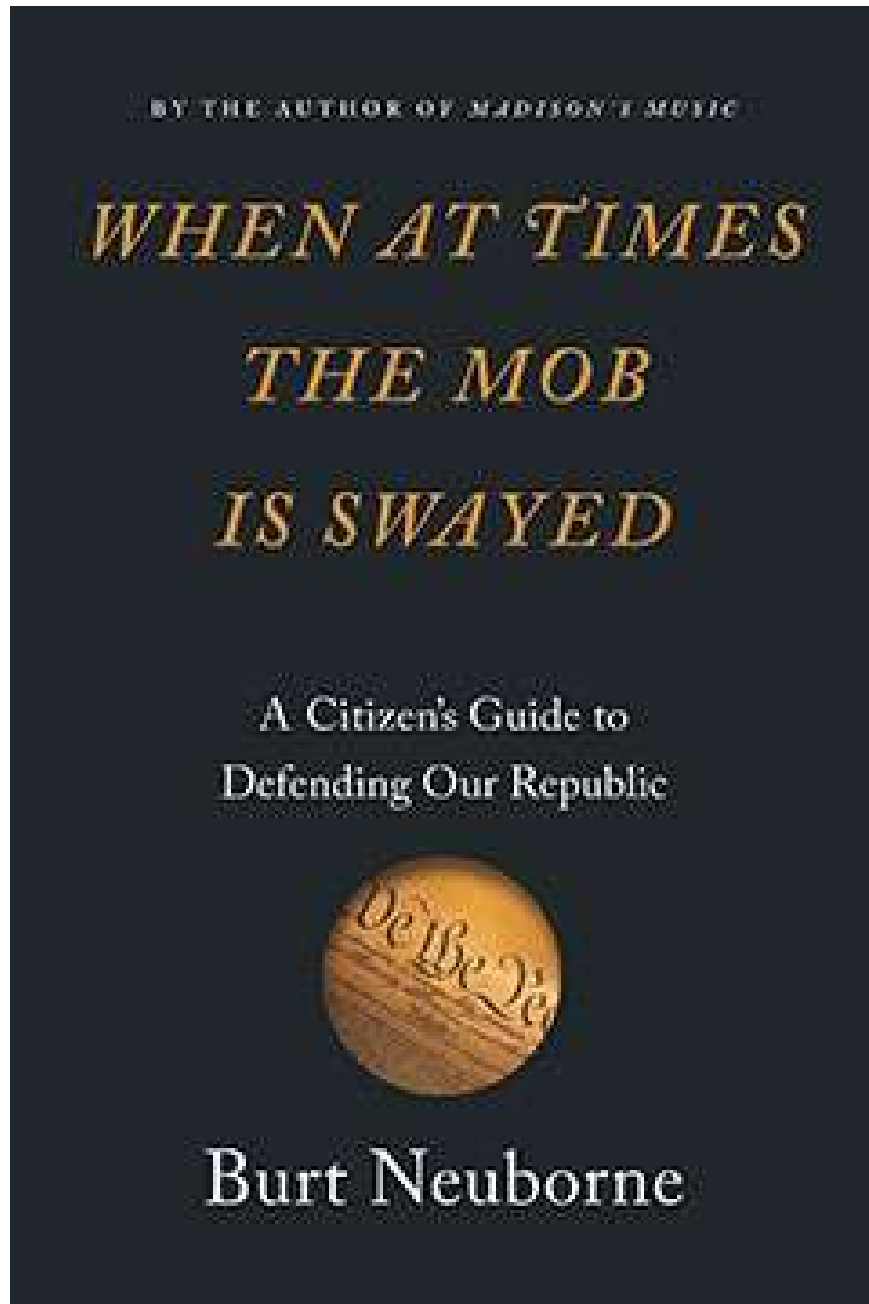


Figure 9.43: Burt Neuborne's brilliant book on the current crisis of American democracy is a warning that we must take very seriously.



Indeed, the book has a larger frame: whether federal checks and balances - Congress, the Supreme Court, the Electoral College - can contain the havoc that Trump thrives on and the Republican Party at large has embraced. But the Trump-Hitler compilation is a stunning warning, because, as many Holocaust survivors have said, few Germans or Europeans expected what unfolded in the years after Hitler amassed power.

Here's how Neuborne introduces this section. Many recent presidents have been awful, "But then there was Donald Trump, the only president in recent American history to openly despise the twin ideals - individual dignity and fundamental equality - upon which the contemporary United States is built. When you confront the reality of a president like Trump, the state of both sets of brakes - internal [constitutional] and external [public resistance] - become hugely important because Donald Trump's political train runs on the most potent and dangerous fuel of all: a steady diet of fear, greed, loathing, lies, and envy. It's a toxic mixture that has destroyed democracies before, and can do so again.

"Give Trump credit," he continues. "He did his homework well and became the twenty-first-century master of divisive rhetoric. We're used to thinking of Hitler's Third Reich as the incomparably evil tyranny that it undoubtedly was. But Hitler didn't take power by force. He used a set of rhetorical tropes codified in Trump's bedside reading that persuaded enough Germans to welcome Hitler as a populist leader. The Nazis did not overthrow the Weimar Republic. It fell into their hands as the fruit of Hitler's satanic ability to mesmerize enough Germans to trade their birthright for a pottage of scapegoating, short-term economic gain, xenophobia, and racism. It could happen here."

Twenty points of similarity

Neuborne lists the following points of similarity between early Hitler and Trump:

1. Neither was elected by a majority. Trump lost the popular vote by 2.9 million votes, receiving votes by 25.3 percent of all eligible American voters. "That's just a little less than the percentage of the German electorate that turned to the Nazi Party in 1932-33," Neuborne writes. "Unlike the low turnouts in the United States, turnout in Weimar Germany averaged just over 80 percent of eligible voters." He continues, "Once installed as a minority chancellor in January 1933, Hitler set about demonizing his political opponents, and no one - not the vaunted, intellectually brilliant German judiciary; not the respected, well-trained German police; not the revered, aristocratic German military; not the widely admired, efficient German government bureaucracy; not the wealthy, immensely powerful leaders of German industry; and not the powerful center-right political leaders of the Reichstag - mounted a serious effort to stop him."

2. Both found direct communication channels to their base. By 1936's Olympics, Nazi narratives dominated German cultural and political life. "How on earth did Hitler pull it off? What satanic magic did Trump find in Hitler's speeches?" Neuborne asks. He addresses Hitler's extreme rhetoric soon enough, but notes that Hitler found a direct communication pathway - the Nazi Party gave out radios with only one channel, tuned to Hitler's voice, bypassing Germany's news media. Trump has an online equivalent.

"Donald Trump's tweets, often delivered between midnight and dawn, are the twenty-first century's technological embodiment of Hitler's free plastic radios," Neuborne says. "Trump's Twitter account, like Hitler's radios, enables a charismatic leader to establish and maintain a personal, unfiltered line of communication with an adoring political base of about 30-40 percent of the population, many (but not all) of whom are only too willing, even anxious, to swallow Trump's witches' brew of falsehoods, half-truths, personal invective, threats, xenophobia, national security scares, religious bigotry, white racism, exploitation of economic insecurity, and a never ending-search for scapegoats."

3. Both blame others and divide on racial lines. As Neuborne notes, "Hitler used his single-frequency radios to wax hysterical to his adoring base about his pathological racial and religious fantasies glorifying Aryans and demonizing Jews, blaming Jews (among other racial and religious scapegoats) for German society's ills." That is comparable to "Trump's tweets and public statements, whether dealing with black-led demonstrations against police violence, white-led racist mob violence, threats posed by undocumented aliens, immigration policy generally, protests by black and white professional athletes, college admission policies, hate speech, even response to hurricane damage in Puerto Rico," he says. Again and again, Trump uses "racially tinged messages calculated to divide whites from people of color."
4. Both relentlessly demonize opponents. "Hitler's radio harangues demonized his domestic political opponents, calling them parasites, criminals, cockroaches, and various categories of leftist scum," Neuborne notes. "Trump's tweets and speeches similarly demonize his political opponents. Trump talks about the country being 'infested' with dangerous aliens of color. He fantasizes about jailing Hillary Clinton, calls Mexicans rapists, refers to 'shithole countries,' degrades anyone who disagrees with him, and dreams of uprooting thousands of allegedly disloyal bureaucrats in the State Department, the Environmental Protection Agency, the FBI, and the CIA, who he calls 'the deep state' and who, he claims, are sabotaging American greatness."

5. They unceasingly attack objective truth. “Both Trump and Hitler maintained a relentless assault on the very idea of objective truth,” he continues. “Each began the assault by seeking to delegitimize the mainstream press. Hitler quickly coined the epithet *Lügenpresse* (literally ‘lying press’) to denigrate the mainstream press. Trump uses a paraphrase of Hitler’s lying press epithet - ‘fake news’ - cribbed, no doubt, from one of Hitler’s speeches. For Trump, the mainstream press is a ‘lying press’ that publishes ‘fake news.’” Hitler attacked his opponents as spreading false information to undermine his positions, Neuborne says, just as Trump has attacked “elites” for disseminating false news, “especially his possible links to the Kremlin.”
6. They relentlessly attack mainstream media. Trump’s assaults on the media echo Hitler’s, Neuborne says, noting that he “repeatedly attacks the ‘failing New York Times,’ leads crowds in chanting ‘CNN sucks,’ [and] is personally hostile to most reporters.” He cites the White House’s refusal to fly the flag at half-mast after the murder of five journalists in Annapolis in June 2018, Trump’s efforts to punish CNN by blocking a merger of its corporate parent, and trying to revoke federal Postal Service contracts held by Amazon, which was founded by Jeff Bezos, who also owns the Washington Post.
7. Their attacks on truth include science. Neuborne notes, “Both Trump and Hitler intensified their assault on objective truth by deriding scientific experts, especially academics who question Hitler’s views on race or Trump’s views on climate change, immigration, or economics. For both Trump and Hitler, the goal is (and was) to eviscerate the very idea of objective truth, turning everything into grist for a populist jury subject to manipulation by a master puppeteer. In both Trump’s and Hitler’s worlds, public opinion ultimately defines what is true and what is false.”
8. Their lies blur reality - and supporters spread them. “Trump’s pathological penchant for repeatedly lying about his behavior can only succeed in a world where his supporters feel free to embrace Trump’s ‘alternative facts’ and treat his hyperbolic exaggerations as the gospel truth,” Neuborne says. “Once Hitler had delegitimized the mainstream media by a series of systematic attacks on its integrity, he constructed a fawning alternative mass media designed to reinforce his direct radio messages and enhance his personal power. Trump is following the same path, simultaneously launching bitter attacks on the mainstream press while embracing the so-called alt-right media, co-opting both Sinclair Broadcasting and the Rupert Murdoch-owned Fox Broadcasting Company as, essentially, a Trump Broadcasting Network.”

9. Both orchestrated mass rallies to show status. “Once Hitler had cemented his personal communications link with his base via free radios and a fawning media and had badly eroded the idea of objective truth, he reinforced his emotional bond with his base by holding a series of carefully orchestrated mass meetings dedicated to cementing his status as a charismatic leader, or Führer,” Neuborne writes. “The powerful personal bonds nurtured by Trump’s tweets and Fox’s fawning are also systematically reinforced by periodic, carefully orchestrated mass rallies (even going so far as to co-opt a Boy Scout Jamboree in 2017), reinforcing Trump’s insatiable narcissism and his status as a charismatic leader.”
10. They embrace extreme nationalism. “Hitler’s strident appeals to the base invoked an extreme version of German nationalism, extolling a brilliant German past and promising to restore Germany to its rightful place as a preeminent nation,” Neuborne says. “Trump echoes Hitler’s jingoistic appeal to ultranationalist fervor, extolling American exceptionalism right down to the slogan ‘Make America Great Again,’ a paraphrase of Hitler’s promise to restore German greatness.”
11. Both made closing borders a centerpiece. “Hitler all but closed Germany’s borders, freezing non-Aryan migration into the country and rendering it impossible for Germans to escape without official permission. Like Hitler, Trump has also made closed borders a centerpiece of his administration,” Neuborne continues. “Hitler barred Jews. Trump bars Muslims and seekers of sanctuary from Central America. When the lower courts blocked Trump’s Muslim travel ban, he unilaterally issued executive orders replacing it with a thinly disguised substitute that ultimately narrowly won Supreme Court approval under a theory of extreme deference to the president.”
12. They embraced mass detention and deportations. “Hitler promised to make Germany free from Jews and Slavs. Trump promises to slow, stop, and even reverse the flow of non-white immigrants, substituting Muslims, Africans, Mexicans, and Central Americans of color for Jews and Slavs as scapegoats for the nation’s ills. Trump’s efforts to cast dragnets to arrest undocumented aliens where they work, live, and worship, followed by mass deportation... echo Hitler’s promise to defend Germany’s racial identity,” he writes, also noting that Trump has “stooped to tearing children from their parents [as Nazis in World War II would do] to punish desperate efforts by migrants to find a better life.”
13. Both used borders to protect selected industries. “Like Hitler, Trump seeks to use national borders to protect his favored national interests, threatening to ignite protectionist trade wars with Europe, China, and

Japan similar to the trade wars that, in earlier incarnations, helped to ignite World War I and World War II,” Neuborne writes. “Like Hitler, Trump aggressively uses our nation’s political and economic power to favor selected American corporate interests at the expense of foreign competitors and the environment, even at the price of international conflict, massive inefficiency, and irreversible pollution [climate change].”

14. They cemented their rule by enriching elites. “Hitler’s version of fascism shifted immense power - both political and financial - to the leaders of German industry. In fact, Hitler governed Germany largely through corporate executives,” he continues. “Trump has also presided over a massive empowerment - and enrichment - of corporate America. Under Trump, large corporations exercise immense political power while receiving huge economic windfalls and freedom from regulations designed to protect consumers and the labor force. Hitler despised the German labor movement, eventually destroying it and imprisoning its leaders. Trump also detests strong unions, seeking to undermine any effort to interfere with the ’prerogatives of management.”
15. Both rejected international norms. “Hitler’s foreign policy rejected international cooperation in favor of military and economic coercion, culminating in the annexation of the Sudetenland, the phony Hitler-Stalin nonaggression pact, the invasion of Czechoslovakia, and the horrors of global war,” Neuborne notes. “Like Hitler, Trump is deeply hostile to multinational cooperation, withdrawing from the Trans-Pacific Partnership, the Paris Agreement on climate change, and the nuclear agreement with Iran, threatening to withdraw from the North American Free Trade Agreement, abandoning our Kurdish allies in Syria...”
16. They attack domestic democratic processes. “Hitler attacked the legitimacy of democracy itself, purging the voting rolls, challenging the integrity of the electoral process, and questioning the ability of democratic government to solve Germany’s problems,” Neuborne notes. “Trump has also attacked the democratic process, declining to agree to be bound by the outcome of the 2016 elections when he thought he might lose, supporting the massive purge of the voting rolls allegedly designed to avoid (nonexistent) fraud, championing measures that make it harder to vote, tolerating - if not fomenting - massive Russian interference in the 2016 presidential election, encouraging mob violence at rallies, darkly hinting at violence if Democrats hold power, and constantly casting doubt on the legitimacy of elections unless he wins.”
17. Both attack the judiciary and rule of law. “Hitler politicized and eventually destroyed the vaunted German justice system. Trump also seeks to

turn the American justice system into his personal playground,” Neuborne writes. “Like Hitler, Trump threatens the judicially enforced rule of law, bitterly attacking American judges who rule against him, slyly praising Andrew Jackson for defying the Supreme Court, and abusing the pardon power by pardoning an Arizona sheriff found guilty of criminal contempt of court for disobeying federal court orders to cease violating the Constitution.”

18. Both glorify the military and demand loyalty oaths. “Like Hitler, Trump glorifies the military, staffing his administration with layers of retired generals (who eventually were fired or resigned), relaxing control over the use of lethal force by the military and the police, and demanding a massive increase in military spending,” Neuborne writes. Just as Hitler “imposed an oath of personal loyalty on all German judges” and demanded courts defer to him, “Trump’s already gotten enough deference from five Republican [Supreme Court] justices to uphold a largely Muslim travel ban that is the epitome of racial and religious bigotry.” Trump has also demanded loyalty oaths. “He fired James Comey, a Republican appointed in 2013 as FBI director by President Obama, for refusing to swear an oath of personal loyalty to the president; excoriated and then sacked Jeff Sessions, his handpicked attorney general, for failing to suppress the criminal investigation into... Trump’s possible collusion with Russia in influencing the 2016 elections; repeatedly threatened to dismiss Robert Mueller, the special counsel carrying out the investigation; and called again and again for the jailing of Hillary Clinton, his 2016 opponent, leading crowds in chants of ‘lock her up.’” A new chant, “send her back,” has since emerged at Trump rallies directed at non-white Democratic congresswomen.
19. They proclaim unchecked power. “Like Hitler, Trump has intensified a disturbing trend that predated his administration of governing unilaterally, largely through executive orders or proclamations,” Neuborne says, citing the Muslim travel ban, trade tariffs, unraveling of health and environmental safety nets, ban on transgender military service, and efforts to end President Obama’s protection for Dreamers. “Like Hitler, Trump claims the power to overrule Congress and govern all by himself. In 1933, Hitler used the pretext of the Reichstag fire to declare a national emergency and seize the power to govern unilaterally. The German judiciary did nothing to stop him. German democracy never recovered. When Congress refused to give Trump funds for his border wall even after he threw a tantrum and shut down the government, Trump, like Hitler, declared a phony national emergency and claimed the power to ignore Congress,” Neuborne continues. “Don’t count on the Supreme Court to stop him. Five justices gave the game away on the President’s unilateral travel ban.

They just might do the same thing on the border wall.” It did in late July, ruling that Trump could divert congressionally appropriated funds from the Pentagon budget - undermining constitutional separation of powers.

20. Both relegate women to subordinate roles. “Finally,” writes Neuborne, “Hitler propounded a misogynistic, stereotypical view of women, valuing them exclusively as wives and mothers while excluding them from full participation in German political and economic life. Trump may be the most openly misogynist figure ever to hold high public office in the United States, crassly treating women as sexual objects, using nondisclosure agreements and violating campaign finance laws to shield his sexual misbehavior from public knowledge, attacking women who come forward to accuse men of abusive behavior, undermining reproductive freedom, and opposing efforts by women to achieve economic equality.”

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Chapter 10

OLIGARCHIES CONTROL THE MASS MEDIA

10.1 Media in the service of powerholders

Throughout history, art was commissioned by rulers to communicate, and exaggerate, their power, glory, absolute rightness etc, to the populace. The pyramids gave visual support to the power of the Pharaoh; portraits of rulers are a traditional form of propaganda supporting monarchies; and palaces were built as symbols of power.

Modern powerholders are also aware of the importance of propaganda. Thus the media are a battleground where reformers struggle for attention, but are defeated with great regularity by the wealth and power of the establishment. This is a tragedy because today there is an urgent need to make public opinion aware of the serious problems facing civilization, and the steps that are needed to solve these problems. The mass media could potentially be a great force for public education, but often their role is not only unhelpful - it is negative.

It is certainly possible to find a few television programs and newspaper articles that present the facts about climate change in a realistic way. For example *The Guardian* gives outstanding climate change coverage. However, the mass media could do very much more. One has to conclude that the media are neglecting their great responsibilities at a time of acute crisis for human civilization and the biosphere. The same can be said of our educational systems at both both the primary and advanced levels. We urgently need much more public education about the severe dangers that we face today.

10.2 Television as a part of our educational system

In the mid-1950's, television became cheap enough so that ordinary people in the industrialized countries could afford to own sets. During the infancy of television, its power was underestimated. The great power of television is due to the fact that it grips two senses simultaneously, both vision and hearing. The viewer becomes an almost-hypnotized

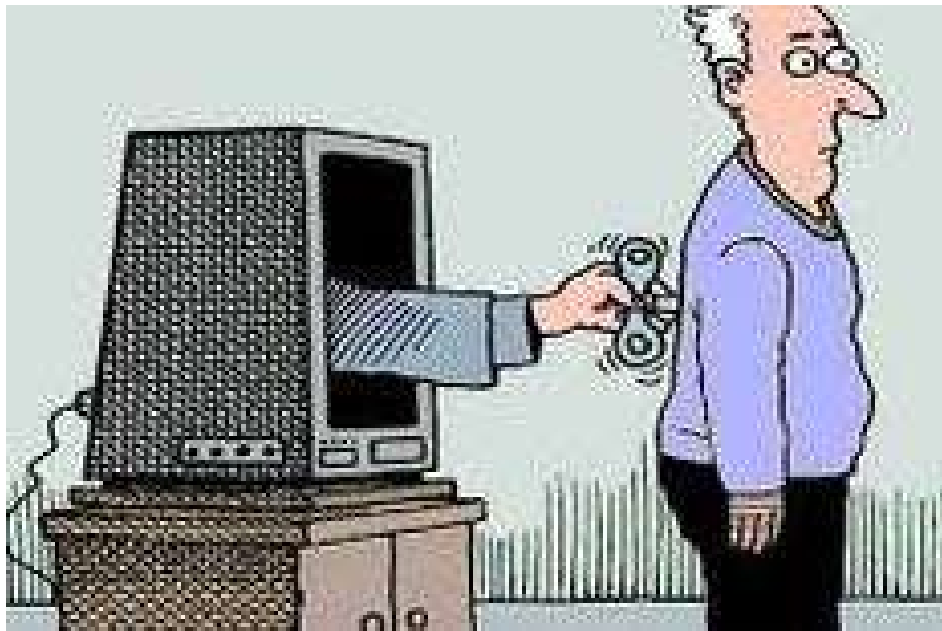


Figure 10.1: **The role of the media.**

captive of the broadcast.

In the 1950's, this enormous power, which can be used both for good and for ill, was not yet fully apparent. Thus insufficient attention was given to the role of television in education, in setting norms, and in establishing values. Television was not seen as an integral part of the total educational system. It is interesting to compare the educational systems of traditional cultures with those of modern industrial societies.

In traditional societies, multigenerational families often live together in the same dwelling. In general, there is a great deal of contact between grandparents and grandchildren, with much transmission of values and norms between generations. Old people are regarded with great respect, since they are considered to be repositories of wisdom, knowledge, and culture.

By contrast, modern societies usually favor nuclear families, consisting of only parents and children. Old people are marginalized. They live by themselves in communities or homes especially for the old. Their cultural education knowledge and norms are not valued because they are "out of date". In fact, during the life of a young person in one of the rapidly-changing industrial societies of the modern world, there is often a period when they rebel against the authority of their parents and are acutely embarrassed by their parents, who are "so old-fashioned that they don't understand anything".

Although the intergenerational transmission of values, norms, and culture is much less important in industrial societies than it is in traditional ones, modern young people of the West and North are by no means at a loss over where to find their values, fashions and role models. With every breath, they inhale the values and norms of the mass media. Totally surrounded by a world of television and film images, they accept this world as their own.



Figure 10.2: Liberty?

10.3 Neglect of climate change in the mass media

The predicament of humanity today has been called “a race between education and catastrophe”: How do the media fulfil this life-or-death responsibility? Do they give us insight? No, they give us pop music. Do they give us an understanding of the sweep of evolution and history? No, they give us sport. Do they give us an understanding of the ecological catastrophes that threaten our planet because of unrestricted growth of population and industries? No, they give us sit-coms and soap operas. Do they give us unbiased news? No, they give us news that has been edited to conform with the interests of powerful lobbys. Do they present us with the urgent need to leave fossil fuels in the ground? No, they do not, because this would offend the powerholders. Do they tell of the danger of passing tipping points after which human efforts to prevent catastrophic climate change will be useless? No, they give us programs about gardening and making food.

A consumer who subscribes to the “package” of broadcasts sold by a cable company can often search through all 95 channels without finding a single program that offers insight into the various problems that are facing the world today. What the viewer finds instead is a mixture of pro-establishment propaganda and entertainment. Meanwhile the neglected global problems are becoming progressively more severe.

In general, the mass media behave as though their role is to prevent the peoples of the world from joining hands and working to change the world and to save it from thermonuclear war, environmental catastrophes and threatened global famine. The television viewer sits slumped in a chair, passive, isolated, disempowered and stupefied. The future of the world hangs in the balance, the fate of children and grandchildren hangs in the balance, but the television viewer feels no impulse to work actively to change the world or to save it. The Roman emperors gave their people bread and circuses to numb them into political

inactivity. The modern mass media seem to be playing a similar role.

10.4 Climate change denial in mass media

The Wikipedia article on climate change denial describes it with the following words: “Although scientific opinion on climate change is that human activity is extremely likely to be the primary driver of climate change, the politics of global warming have been affected by climate change denial, hindering efforts to prevent climate change and adapt to the warming climate. Those promoting denial commonly use rhetorical tactics to give the appearance of a scientific controversy where there is none.”

It is not surprising that the fossil fuel industry supports, on a vast scale, politicians and mass media that deny the reality of climate change. The amounts of money at stake are vast. If catastrophic climate change is to be avoided, coal, oil and natural gas “assets” worth trillions of dollars must be left in the ground. Giant fossil fuel corporations are desperately attempting to turn these “assets” into cash.

Preventing an ecological apocalypse

Here are some excerpts from an article entitled “**Only Rebellion will prevent an ecological apocalypse**” by George Monbiot, which was published on April 15 2019 in The Guardian¹:

No one is coming to save us. Mass civil disobedience is essential to force a political response.

Had we put as much effort into preventing environmental catastrophe as we’ve spent on making excuses for inaction, we would have solved it by now. Everywhere I look, I see people engaged in furious attempts to fend off the moral challenge it presents...

As the environmental crisis accelerates, and as protest movements like YouthStrike4Climate and Extinction Rebellion make it harder not to see what we face, people discover more inventive means of shutting their eyes and shedding responsibility. Underlying these excuses is a deep-rooted belief that if we really are in trouble, someone somewhere will come to our rescue: “they” won’t let it happen. But there is no they, just us.

The political class, as anyone who has followed its progress over the past three years can surely now see, is chaotic, unwilling and, in isolation, strategically incapable of addressing even short-term crises, let alone a vast existential predicament. Yet a widespread and wilful naivety prevails: the belief that voting is the only political action required to change a system. Unless it is

¹<https://www.theguardian.com/commentisfree/2019/apr/15/rebellion-prevent-ecological-apocalypse-civil-disobedience>



Figure 10.3: Network administrators have noticed that programs about climate change often have low viewer ratings. Since they see delivering high viewer ratings to their advertisers as their primary duty, these executives seldom allow programs dealing with the danger of catastrophic climate change. The duty to save the earth from environmental catastrophe is neglected for the sake of money. As Al Gore said, “Instead of having a well-informed electorate, we have a well-amused audience”.



accompanied by the concentrated power of protest - articulating precise demands and creating space in which new political factions can grow - voting, while essential, remains a blunt and feeble instrument.

The media, with a few exceptions, is actively hostile. Even when broadcasters cover these issues, they carefully avoid any mention of power, talking about environmental collapse as if it is driven by mysterious, passive forces, and proposing microscopic fixes for vast structural problems. The BBC's Blue Planet Live series exemplified this tendency.

Those who govern the nation and shape public discourse cannot be trusted with the preservation of life on Earth. There is no benign authority preserving us from harm. No one is coming to save us. None of us can justifiably avoid the call to come together to save ourselves...

Predatory delay

Here are some excerpts from a May 3 2019 article by Bill Henderson entitled “Neoliberalism, Solution Aversion, Implicatory Denial and Predatory Delay”²:

Looking back at the history, that it's not really a failure of human beings and human nature that's the problem here. It's a hijacking of our political and economic system by the fossil fuel industry and a small number of like-minded people. It was our bad luck that this idea that markets solve all problems and that government should be left to wither away crested just at the moment when it could do the most damage.

Despite the urgent need to reduce greenhouse gas emissions globally if we are to lower the risks of catastrophic climate change, wealthy industrialized nations persist with a widespread public silence on the issue and fail to address climate change. This is despite there being ever more conclusive evidence of its severity. Why is there an undercurrent of inaction, despite the challenge of climate change being ever more daunting? One element is denial.

George Marshall discovered that there has not been a single proposal, debate or even position paper on limiting fossil fuel production put forward during international climate negotiations. From the very outset fossil fuel production lay outside the frame of the discussions and, as with other forms of socially constructed silence, the social norms among the negotiators and policy specialists kept it that way.

Global climate leadership is being redefined. There is a growing recognition that you cannot be a climate leader if you continue to enable new fossil fuel production, which is inconsistent with climate limits. If no major producers step up to stop the expansion of extraction and begin phasing out existing

²<https://countercurrents.org/2019/05/03/neoliberalism-solution-aversion-implicatory-denial-and-predatory-delay-bill-henderson/>

fields and mines, the Paris goals will become increasingly difficult to achieve. Wealthy fossil fuel producers have a responsibility to lead, and this must include planning for a just and equitable managed decline of existing production.

The (emissions reduction) curve we've been forced onto bends so steeply, that the pace of victory is part of victory itself. Winning slowly is basically the same thing as losing outright. We cannot afford to pursue past strategies, aimed at limited gains towards distant goals. In the face of both triumphant denialism and predatory delay, trying to achieve climate action by doing the same things, the same old ways, means defeat. It guarantees defeat.

A fast, emergency-scale transition to a post-fossil fuel world is absolutely necessary to address climate change. But this is excluded from consideration by policymakers because it is considered to be too disruptive. The orthodoxy is that there is time for an orderly economic transition within the current short-termist political paradigm. Discussion of what would be safe - less warming than we presently experience - is non-existent. And so we have a policy failure of epic proportions. Policymakers, in their magical thinking, imagine a mitigation path of gradual change, to be constructed over many decades in a growing, prosperous world...

10.5 Showing unsustainable lifestyles in mass media

Television and other mass media contribute indirectly to climate change denial by showing unsustainable lifestyles. Television dramas show the ubiquitous use of gasoline-powered automobiles and highways crowded with them. just as though there did not exist an urgent need to transform our transportation systems. Motor racing is shown. A program called "Top Gear" tells viewers about the desirability of various automobiles. In general, cyclists are not shown. In television dramas, the protagonists fly to various parts of the world for their holidays. The need for small local self-sustaining communities is not shown.

Advertisements in the mass media urge us to consume more, to fly, to purchase large houses, and to buy gasoline-driven automobiles, just as though such behavior ought to be the norm. Such norms are leading us towards environmental disaster.

10.6 Alternative media

Luckily, the mass media do not have a complete monopoly on public information. With a little effort, citizens who are concerned about the future can find alternative media. These include a large number of independent on-line news services that are supported by subscriber donations rather than by corporate sponsors. *YouTube* videos also represent an extremely important source of public information.



10.7 Outstanding voices calling for climate action

The Guardian

There are exceptions to the general rule that the mass media downplay or completely ignore the climate emergency. The Guardian is a newspaper with absolutely outstanding coverage of all issues related to climate change. No praise can be strong enough for the courageous environmental editorial policy of this famous old British newspaper.

Al Gore

Albert Arnold Gore Jr. served as the 45th Vice President of the United States from January 1985 to January 1993. He then ran for the office of President, but was defeated by George W. Bush in a controversial election whose outcome was finally decided by the US Supreme Court³.

Al Gore is the founder and current Chairman of the Alliance for Climate Protection. He was one of the first important political figures to call attention to the problem of steadily increasing CO₂ levels in the atmosphere and the threat of catastrophic climate change. He produced the highly influential documentary film *An Inconvenient Truth*⁴. Because of his important efforts to save the global environment, Al Gore shared the 2007 Nobel Peace Prize with the Intergovernmental Panel on Climate Change.

³Many people believe that Al Gore won the election.

⁴<https://www.youtube.com/watch?v=I-SV13UQXdk>

Al Gore's TED talk: The Case for Optimism on Climate Change

In 2016, Al Gore gave an important talk to a TED audience⁵. in which he pointed out the an economic tipping point has just been passed. Solar energy and wind energy are now cheaper than energy form fossil fuels. This means that economic forces alone can drive a rapid transition to 100% renewable energy. Investors will realize that renewables represent an unparalleled investment opportunity.

Sir David Attenborough

In a 2011 interview in The Guardian, Sir David Attenborough was asked: “What will it take to wake people up about climate change?”. He replied “Disaster. It’s a terrible thing to say, isn’t it? And even disaster doesn’t always do it. I mean, goodness me, there have been disasters in North America, with hurricanes, and one thing and another, and floods; and still a lot of people would deny it, and say it’s nothing to do with climate change. Well it visibly has to do with climate change!”

Sir David Attenborough’s almost unbelievably enormous and impressive opus of television programs about the natural world have helped to raise public awareness of the importance of the natural environment. He also has made a number of television programs specifically related to questions such as saving threatened species, the dangers of exploding global human populations, and the destruction of forests for the sake of palm oil plantations.

Let us return to The Guardian’s 2011 interview with Sir David. Had it been made in the autumn of 2017, the interview would certainly have included a discussion of recent hurricanes of unprecedented power and destructiveness, such as Harvey, Irma and Maria, as well as 2017’s wildfires and Asian floods. It is possible that such events, which will certainly become more frequent and severe during the next few years, will provide the political will needed to silence climate change denial, to stop fossil fuel extraction, and to promote governmental policies favoring renewable energy.

Although the mass media almost have entirely neglected the link between climate change and recent disastrous hurricanes, floods droughts and wildfires, many individuals and organizations emphasized the cause and effect relationship. For example, UK airline billionaire Sir Richard Branson, whose Caribbean summer residence was destroyed by Hurricane Irma said:

“Look, you can never be 100 percent sure about links, But scientists have said the storms are going to get more and more and more intense and more and more often. We’ve had four storms within a month, all far greater than that have ever, ever, ever happened in history, Sadly, I think this is the start of things to come. Climate change is real. Ninety-nine percent of scientists know it’s real. The whole world knows it’s real except for maybe one person in the White House.”

May Boeve, executive director of the NGO 350.org, said “With a few exceptions, the major TV networks completely failed to cover the scientifically proven ways that climate

⁵<https://www.youtube.com/watch?v=I-SV13UQXdk>

change is intensifying extreme weather events like hurricanes Harvey and Irma. That's not just disappointing, it's dangerous. We won't be able to turn this crisis around if our media is asleep at the wheel."

Commenting on the destruction of Puerto Rico by Hurricane Maria, historian Juan Cole wrote: "When you vote for denialist politicians, you are selecting people who make policy. The policy they make will be clueless and will actively endanger the public. Climate change is real. We are causing it by our emissions. If you don't believe that, you are not a responsible steward of our infrastructure and of our lives."

When interviewed by Amy Goodman of *Democracy Now*, musician Stevie Wonder said: "... we should begin to love and value our planet, and anyone who believes that there is no such thing as global warming must be blind or unintelligent."

Another well-known musician, Beyoncé, added: "The effects of climate change are playing out around the world every day. Just this past week, we've seen devastation from the monsoon in India...and multiple catastrophic hurricanes. Irma alone has left a trail of death and destruction from the Caribbean to Florida to Southern United States. We have to be prepared for what comes next..."

In her September 2017 publication *Season of Smoke*⁶, prizewinning author Naomi Klein wrote:

"We hear about the record-setting amounts of water that Hurricane Harvey dumped on Houston and other Gulf cities and towns, mixing with petrochemicals to pollute and poison on an unfathomable scale. We hear too about the epic floods that have displaced hundreds of thousands of people from Bangladesh to Nigeria (though we don't hear enough). And we are witnessing, yet again, the fearsome force of water and wind as Hurricane Irma, one of the most powerful storms ever recorded, leaves devastation behind in the Caribbean, with Florida now in its sights.

"Yet for large parts of North America, Europe, and Africa, this summer has not been about water at all. In fact it has been about its absence; it's been about land so dry and heat so oppressive that forested mountains exploded into smoke like volcanoes. It's been about fires fierce enough to jump the Columbia River; fast enough to light up the outskirts of Los Angeles like an invading army; and pervasive enough to threaten natural treasures, like the tallest and most ancient sequoia trees and Glacier National Park.

"For millions of people from California to Greenland, Oregon to Portugal, British Columbia to Montana, Siberia to South Africa, the summer of 2017 has been the summer of fire. And more than anything else, it's been the summer of ubiquitous, inescapable smoke.

"For years, climate scientists have warned us that a warming world is an extreme world, in which humanity is buffeted by both brutalizing excesses and stifling absences of the core elements that have kept fragile life in equilibrium for millennia. At the end of the summer of 2017, with major cities submerged in water and others licked by flames, we are currently living through Exhibit A of this extreme world, one in which natural extremes

⁶<https://theintercept.com/2017/09/09/in-a-summer-of-wildfires-and-hurricanes-my-son-asks-why-is-everything-going-wrong/>



Figure 10.4: Sir David Attenborough: “Disaster. It’s a terrible thing to say, isn’t it?”

come head-to-head with social, racial, and economic ones.”

It seems likely that the climate-linked disasters of 2019 and 2020 will be even more severe than those that we have witnessed during 2017 and 2018. But will such disasters be enough to wake us up?

The BBC has recently announced that Sir David Attenborough is currently producing a new series, *Blue Planet II*, which will focus on environmental issues.⁷

“My hope is that the world is coming to its senses ... I’m so old I remember a time when ... we didn’t talk about climate change, we talked about animals and species extermination,” Sir David told Greenpeace in an interview, “For the first time I’m beginning to think there is actually a groundswell, there is a change in the public view. I feel many more people are concerned and more aware of what the problems are. Young people - people who’ve got 50 years of their life ahead of them - they are thinking they ought to be doing something about this. That’s a huge change.”

Climate Change, The Facts

Now Sir David Attenborough has completed a new one-hour BBC program on the danger of catastrophic climate change. Here are some excerpts from an April 18 2019 review of the program by Rebecca Nicholson in *The Guardian*:

The Facts is a rousing call to arms. It is an alarm clock set at a horrifying volume. The first 40 minutes are given over to what Attenborough calls, without hyperbole, “our greatest threat in thousands of years”. Expert af-

⁷<http://www.bbcearth.com/blueplanet2/>



Figure 10.5: Speaking at the opening ceremony of COP24, the universally loved and respected naturalist Sir David Attenborough said: “If we don’t take action, the collapse of our civilizations and the extinction of much of the natural world is on the horizon.”

ter expert explains the consequences of rising CO₂ levels, on the ice caps, on coastal regions, on weather and wildlife and society itself. The most powerful moments are in footage shot not by expert crews who have spent years on location, but on shaky cameras, capturing the very moment at which the reality of our warming planet struck the person holding the phone. In Cairns, Australia, flying foxes are unable to survive the extreme temperatures; rescuers survey the terrible massacre, and we learn that while 350 were saved, 11,000 died. A man and his son talk through their escape from raging wildfires, over the film they took while attempting to drive through a cavern of blazing red trees. These are horror movies playing out in miniature. It is difficult to watch even five minutes of this and remain somehow neutral, or unconvinced.

Yet as I kept on, scribbling down an increasingly grim list of statistics, most of which I knew, vaguely, though compiled like this they finally sound as dreadful as they truly are - 20 of the warmest years on record happened in the last 22 years; Greenland’s ice sheet is melting five times faster than it was 25 years ago - I started to wonder about responsibility, and if and where it would be placed. This would be a toothless film, in the end, if it were hamstrung by political neutrality, and if its inevitable “it’s not too late” message rested solely on individuals and what relatively little tweaks we might make as consumers. What about corporations? What about governments?

Then, at that exact moment, having played the despair through to its crescendo, the experts served up unvarnished honesty. They lined up to lay out the facts, plain and simple. Fossil fuel companies are the most profitable businesses man has ever known, and they engage in PR offensives, using the same consultants as tobacco companies, and the resulting uncertainty and denial, designed to safeguard profits, has narrowed our window for action. It is unforgivable. I find it hard to believe that anyone, regardless of political affiliation, can watch footage of Trump calling climate change “a hoax ... a money-making industry” and not be left winded by such staggering ignorance or astonishing deceit, though it is, more likely, more bleakly, a catastrophic combination of the two. At least Nigel Lawson only appears here in archive footage, and his argument sounds limp, to put it kindly.

Climate Change: The Facts should not have to change minds, but perhaps it will change them anyway, or at least make this seem as pressing as it needs to be. With the Extinction Rebellion protests across London this week, disrupting day-to-day business, and this, on primetime BBC One, maybe the message will filter through. At the very least, it should incite indignation that more was not done, sooner, and then urgency and a decision to both change and push for change at a much higher level. Because there is, for a brief moment, just possibly, still time.

Greta Thunberg meets Pope Francis

On 19 April 2019, Greta Thunberg met briefly with Pope Francis at the end of his general audience. “Continue, continue!” the Pope told her, “Go on, go ahead!” Greta answered Pope Francis with the words: “Thank you for standing up for the climate, for speaking the truth. It means a lot.” Greta’s father, Svante Thunberg, expressed his gratitude to the pope: “Thank you so much for what you are doing. It means everything. Everything.”

The Pope has made fighting climate change and caring for God’s creation a pillar of his papacy. He wrote an entire encyclical about it, blaming a thirst for money for turning the Earth into a wasteland and demanding immediate action to curb global warming.

While in Rome, Greta Thunberg will also address the Italian Parliament and participate in a school strike for action to avoid catastrophic climate change.

In June, 2015, His Holiness Pope Francis I addressed the climate crisis in an encyclical entitled “Laudato Si’ ”⁸. Here are a few excerpts from this enormously important encyclical, which is addressed not only to the world’s 1.2 billion Catholics, but also to concerned people of all faiths. After reviewing the contributions of his predecessors. Pope Francis makes the following points:

23. The climate is a common good, belonging to all and meant for all. At the global level, it is a complex system linked to many of the essential conditions

⁸<https://unfccc.int/news/pope-francis-releases-encyclical-on-climate-and-environment>

for human life. A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climatic system. In recent decades this warming has been accompanied by a constant rise in the sea level and, it would appear, by an increase of extreme weather events, even if a scientifically determinable cause cannot be assigned to each particular phenomenon. Humanity is called to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it. It is true that there are other factors (such as volcanic activity, variations in the earth's orbit and axis, the solar cycle), yet a number of scientific studies indicate that most global warming in recent decades is due to the great concentration of greenhouse gases (carbon dioxide, methane, nitrogen oxides and others) released mainly as a result of human activity. As these gases build up in the atmosphere, they hamper the escape of heat produced by sunlight at the earth's surface. The problem is aggravated by a model of development based on the intensive use of fossil fuels, which is at the heart of the worldwide energy system. Another determining factor has been an increase in changed uses of the soil, principally deforestation for agricultural purposes.

24. Warming has effects on the carbon cycle. It creates a vicious circle which aggravates the situation even more, affecting the availability of essential resources like drinking water, energy and agricultural production in warmer regions, and leading to the extinction of part of the planet's biodiversity. The melting in the polar ice caps and in high altitude plains can lead to the dangerous release of methane gas, while the decomposition of frozen organic material can further increase the emission of carbon dioxide. Things are made worse by the loss of tropical forests which would otherwise help to mitigate climate change. Carbon dioxide pollution increases the acidification of the oceans and compromises the marine food chain. If present trends continue, this century may well witness extraordinary climate change and an unprecedented destruction of ecosystems, with serious consequences for all of us. A rise in the sea level, for example, can create extremely serious situations, if we consider that a quarter of the world's population lives on the coast or nearby, and that the majority of our megacities are situated in coastal areas.

25. Climate change is a global problem with grave implications: environmental, social, economic, political and for the distribution of goods. It represents one of the principal challenges facing humanity in our day. Its worst impact will probably be felt by developing countries in coming decades. Many of the poor live in areas particularly affected by phenomena related to warming, and their means of subsistence are largely dependent on natural reserves and ecosystemic services such as agriculture, fishing and forestry. They have no other financial activities or resources which can enable them to adapt to climate change or to



Figure 10.6: Greta Thunberg had the privilege of meeting Pope Francis. Both are outstanding voices for climate action.

face natural disasters, and their access to social services and protection is very limited. For example, changes in climate, to which animals and plants cannot adapt, lead them to migrate; this in turn affects the livelihood of the poor, who are then forced to leave their homes, with great uncertainty for their future and that of their children. There has been a tragic rise in the number of migrants seeking to flee from the growing poverty caused by environmental degradation. They are not recognized by international conventions as refugees; they bear the loss of the lives they have left behind, without enjoying any legal protection whatsoever. Sadly, there is widespread indifference to such suffering, which is even now taking place throughout our world. Our lack of response to these tragedies involving our brothers and sisters points to the loss of that sense of responsibility for our fellow men and women upon which all civil society is founded.

At a London event arranged by The Guardian, Greta Thunberg was asked whether she believed that a general strike could alert politicians to the urgency of the climate emergency. She replied “yes”. Here are some of her other comments:



Figure 10.7: Of the fossil fuels, all are bad, but coal is the worst.



Figure 10.8: Speaking to a crowd of many thousands at Marble Arch, London, on April 21, 2019, Greta Thunberg said: “For way too long the politicians and the people in power have gotten away with not doing anything ... But we will make sure that they will not get away with it any longer, We will never stop fighting, we will never stop fighting for this planet, for ourselves, our futures and for the futures of our children and grandchildren.”

This is not just young people being sick of politicians. It's an existential crisis. It is something that will affect the future of our civilization. It's not just a movement. It's a crisis and we must take action accordingly.

At a later meeting with members of the U.K. Parliament, Greta Thunberg said:

The U.K.'s active current support of new exploitation of fossil fuels, like for example the U.K. shale gas fracking industry, the expansion of its North Sea oil and gas fields, the expansion of airports, as well as the planning permission for a brand new coalmine, is beyond absurd.

This ongoing irresponsible behavior will no doubt be remembered in history as one of the greatest failures of humankind. .

Leonardo DiCaprio

Leonardo DiCaprio has won many awards for his work as an actor, writer and producer in both television and films. These include 50 awards from 167 nominations. DiCaprio has been nominated for six Academy Awards, four British Academy Film Awards and nine Screen Actors Guild Awards, winning one award each from them and three Golden Globe Awards from eleven nominations.

In accepting his Best Actor award at the 2016 Oscars ceremony, DiCaprio said: "Climate change is real, it is happening right now. It is the most urgent threat facing our entire species, and we need to work collectively together and stop procrastinating. We need to support leaders around the world who do not speak for the big polluters, but who speak for all of humanity, for the indigenous people of the world, for the billions and billions of underprivileged people out there who would be most affected by this. For our children's children, and for those people out there whose voices have been drowned out by the politics of greed."

Leonardo DiCaprio has used his great success as an actor in the service of environmental causes. In 1997, following the box office success of *Titanic*, he set up the Leonardo DiCaprio Foundation, which is devoted to environmental causes. He chaired the national Earth Day celebrations in 2000 during which he interviewed US President Bill Clinton, with whom he discussed the actions needed to avoid catastrophic climate change. In 2007 he had a major role in *The 11th Hour*, a documentary about people's relationship to nature and global warming. He also co-produced and co-wrote the film.

DiCaprio's most influential film on climate change is *Before the Flood*⁹. This film, released in 2016, is a 1 hour and 36 minute documentary in which Leonardo DiCaprio travels to many countries to let viewers observe the already visible effects of global warming. He also talks with many of the world's leaders, including Pope Francis I, US Presidents Bill Clinton and Barack Obama, and UN Secretary General Ban Ki-moon.

⁹<http://www.get.filmovie.us/play.php?movie=tt5929776t>



Figure 10.9: Leonardo DiCaprio at a press conference in 2000 (Wikipedia).



Figure 10.10: **Thom Hartmann** speaks to the 2010 Chicago Green Festival (Wikipedia).

Thom Hartmann

Thom Hartmann was born in 1951 in Lansing Michigan. He worked as a disk jockey during his teens, and, after a highly successful business career, he sold his businesses and devoted his energies to writing, humanitarian projects and public education. His influential book, *Last Hours of Ancient Sunlight* was published by Three Rivers Press in 1997 and republished in a revised edition in 2004. In 2013, Hartmann published another extremely important book on the same theme: *The Last Hours of Humanity: Warming the World To Extinction*¹⁰.

Hartmann has hosted a nationally syndicated radio show, The Thom Hartmann Program, since 2003 and a nightly television show, The Big Picture, since 2008.

Concerning Hartmann’s radio show, Wikipedia states that “As of March 2016, the show was carried on 80 terrestrial radio stations in 37 states as well as on Sirius and XM satellite radio. A community radio station in Africa, Radio Builsa in Ghana, also broadcasts the show. Various local cable TV networks simulcast the program. In addition to Westwood One, the show is now also offered via Pacifica Audioport to non-profit stations in a non-profit compliant format and is simulcast on Dish Network channel 9415 and DirecTV channel 348 via Free Speech TV. The program is carried on Radio Sputnik in London, England.”

“Sen. Bernie Sanders (I-VT) appears every Friday during the first hour of the show titled ‘Brunch with Bernie’. Ellen Ratner of the Talk Radio News Service provides Washington commentary daily. Victoria Jones who is the White House correspondent for Talk

¹⁰<https://www.amazon.com/Last-Hours-Humanity-Warming-Extinction/dp/1629213640>

Radio News Service appears occasionally as does Dr. Ravi Batra an economics professor at SMU.”

Together with Leonardo DiCaprio, Thom Hartman recently produced and narrated an extremely important short film entitled *Last Hours*¹¹. This film, draws a parallel between the Permian-Triassic mass extinction, and the danger of a human-induced 6th mass extinction. Various experts who appear in the film confirm that our release of CO₂ into the atmosphere is similar to the greenhouse gasses produced by volcanic eruptions prior to the Permian event. The methane hydrate feedback loop is also discussed. The film should be seen by everyone concerned with the future of human civilization and the biosphere. Concerned citizens should also urgently see Hartman and DiCaprio’s short films *Carbon*, *Green World Rising* and *Reforestation*, also available on YouTube .

James Hansen

James Hansen was born in 1941 in Denison, Iowa. He was educated in physics, mathematics and astronomy at the University of Iowa in the space sciences program initiated James Van Allen. He graduated with great distinction. The studies of the atmosphere and temperature of Venus which Hansen made under Van Allen’s supervision lead him to become extremely concerned about similar effects in the earth’s atmosphere.

From 1962 to 1966, James Hansen participated in the National Aeronautical and Space Administration graduate traineeship and, at the same time, between 1965 and 1966, he was a visiting student at the Institute of Astrophysics at the University of Kyoto and in the Department of Astronomy at the University of Tokyo. Hansen then began work at the Goddard Institute for Space Studies in 1967. He began to work for the Goddard Institute for Space Studies in 1967. Between 1981 and 2013, he was head of the Goddard Institute of Space Studies in New York, and since 2014, he has been the director of the Program on Climate Science, Awareness and Solutions at Columbia University’s Earth Institute.

Hansen continued his work with radiative transfer models, attempting to understand the Venusian atmosphere. Later he applied and refined these models to understand the Earth’s atmosphere, in particular, the effects that aerosols and trace gases have on Earth’s climate. Hansen’s development and use of global climate models has contributed to the further understanding of the Earth’s climate. In 2009 his first book, *Storms of My Grandchildren*, was published.

James Hansen has refined climate change models, focusing on the balance between aerosols and greenhouse gases. He believes that there is a danger that climate change will become much more rapid if the balance shifts towards the greenhouse gases.

Hansen’s Congressional testimony leads to broad public awareness of the dangers

In 1988, Prof. Hansen was asked to testify before the US Congress on the danger of uncontrolled climate change. The testimony marked the start of broad public awareness

¹¹<https://www.youtube.com/watch?v=2bRrg96UtMc>



Figure 10.11: **Prof. James Hansen**

of the seriousness of the danger, and it was reported in a front page article by the New York Times. However, Hansen believes that governmental energy policies still favor fossil fuels. Therefore he has participated in public demonstrations and he was even arrested in 2011 together with more than a thousand other activists for protesting outside the White House.

James Hansen's TED talk and book

In 2012 he presented a TED Talk: *Why I Must Speak Out About Climate Change*. This talk is easily available on the Internet, and it should be required viewing for everyone who is concerned with the earth's future.

Hansen's book, *Storms of My Grandchildren: The Truth About The Coming Climate Catastrophe, and Our Last Chance To Save Humanity* was published in New York by Bloomsbury Publishing in 2009.

10.8 A culture of violence

Links with the entertainment industry

Here are a few films that glorify war:

- Black Hawk Down
- Top Gun
- Behind Enemy Lines
- Red Dawn (1984)



Figure 10.12: Tom Cruise in “Top Gun”.



Figure 10.13: A culture of violence supports the Devil’s Dynamo.

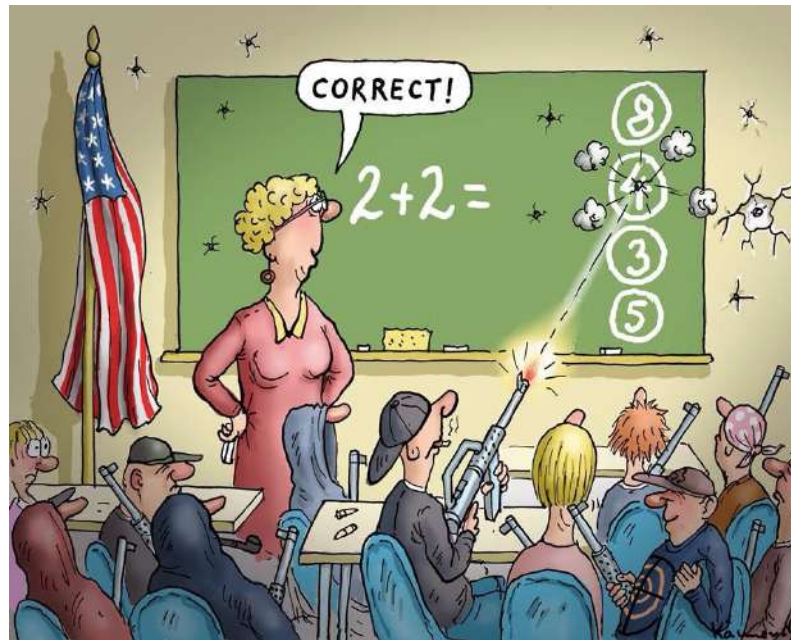


Figure 10.14: **A culture of violence:** In the United States the National Rifle Association has proposed guns in schools as the answer to the epidemic of school shootings.

- American Sniper
- Iron Eagle
- Pearl Harbor
- Act of Valor
- We Were Soldiers
- The Green Berets

Making a game of killing

The mass media are an important part of our educational system. Perhaps it is time to look more closely at the values that they are transmitting. In particular, we should perhaps look at computer games designed for young boys. They often give the strongest imaginable support to a culture of violence.

For example, a game entitled “Full Spectrum Warrior” was recently reviewed in a Danish newspaper. According to the reviewer, “...An almost perfect combination of graphics, sound, band design, and gameplay makes it seem exactly like the film Black Hawk Down - with the player as the main character. This is not just a coincidence, because the game is based on an army training program... Full Spectrum Warrior is an extremely intense experience, and despite the advanced possibilities, the controls are simple enough so that young children can play it... The player is completely drawn into the screen, and remains there until the end of the mission.” The reviewer gave the game six stars (the maximum).

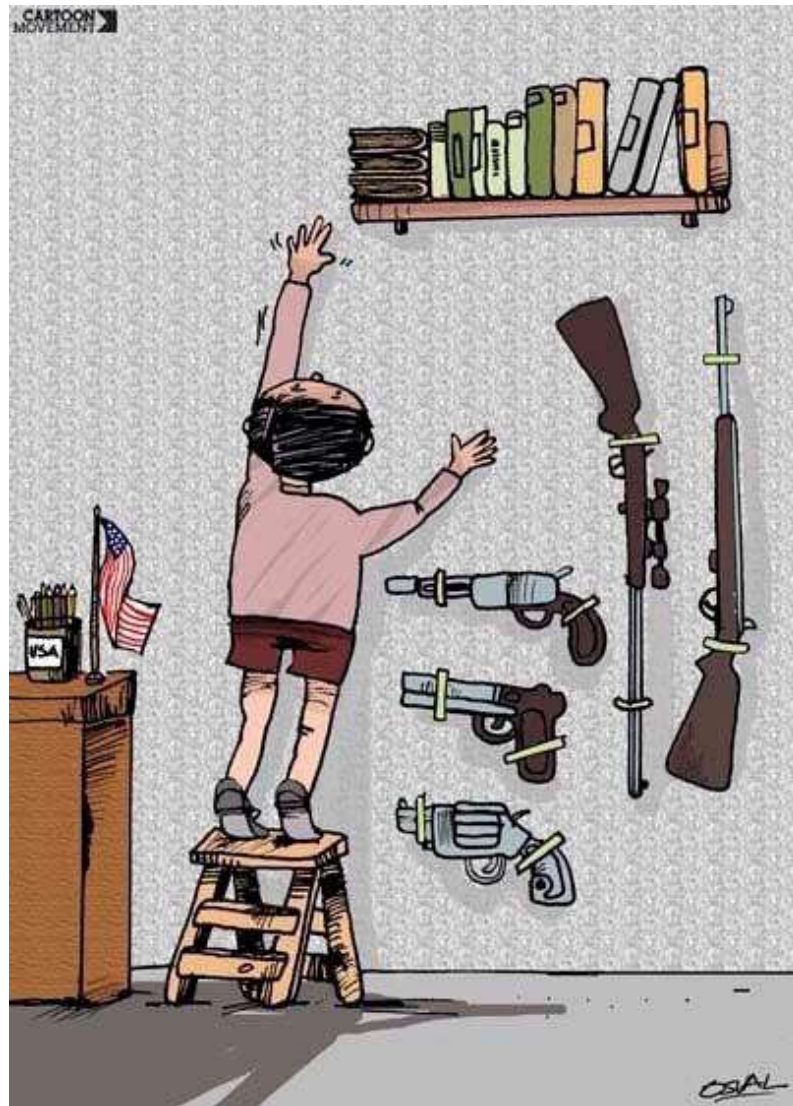


Figure 10.15: A culture of violence. Guns in schools?

Another genre of computer games has to do with building empires, ignoring the fact that imperialism is morally indefensible. For example, “Forge of Empires” is a browser-based strategy game. It is described as follows: “The game offers a single-player campaign for players to explore and conquer several provinces, gaining resources and new technology as they progress.” Conquering countries for the sake of gaining their resources is an all-too-familiar feature of the modern world. In the game “Forge of Empires”, our young people are indoctrinated with the ethos of resource wars.

During his trial, the Norwegian mass-murderer Anders Behring Breivik described how he trained for his attack on young people on the Island of Utöya using the computer game “Call of Duty: Modern Warfare”. The court also heard how he took what he called a “sabbatical” for a year between the summers of 2006 and 2007. During this year, he played a game called “World of Warcraft” full-time, in the bedroom of his mother’s Oslo flat, spending up to 16 hours a day using the game to distance himself from the human and moral significance of killing.

Is this not similar to the frame of mind of drone operators, sitting in comfort in their Nevada bunkers, distanced from the reality of killing? They are playing a computer game that kills targeted individuals and their families, in remote countries, by remote control. There is no need to look into the eyes of the victims. They are just abstract symbols in a computer game.

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Chapter 11

INEQUALITY AND THE COVID-19 PANDEMIC

11.1 History of the pandemic

Starting in December, 2019, and accelerating rapidly during the spring of 2020, our world has been hit by a new and extremely serious pandemic. It is caused by a coronavirus closely related to bat coronaviruses, and the disease, designated COVID-19 has a high death rate compared with seasonal influenza, as is shown below in Table 1. As of April 1, 2020, more than 859,000 cases of COVID-19 have been reported in over 200 countries and territories, resulting in approximately 42,000 deaths. Of course the death rate is actually lower than would be calculated from the ratio $42/859=0.049$, since the actual number of infected people is very much larger than the number of confirmed cases. Older people, and people with previously existing health problems are especially at risk.

The first cases of COVID-19 were noticed in the city of Wuhan, in the Hubei province of China. A cluster of cases centered on the Hunan Seafood Wholesale Market, and the outbreak is thought to have been a case where a virus has been transmitted from an animal host to humans.

The World Health Organization recognized the outbreak as being a Public Health Emergency of International Concern on January 30, 2020. Later, on March 11, 2020, WHO declared it to be a pandemic.

Governments around the world have reacted to the pandemic by closing borders, closing schools, universities, restaurants, barber shops, bars, sports events, and nonessential economic activities of all sorts, also requiring people to stay at home, and requesting them to practice “social distancing”, i.e. staying at least 2 meters from all others, even family members. Different countries have reacted with different rates of speed and different degrees of stringency. But the daily life of people around the world has been severely disrupted by the pandemic, and the economic consequences, already severe, will probably become worse.

A pandemic of this kind was not unexpected. Public health experts have been predicting

Table 11.1: Confirmed cases and deaths as of 31 March, 2020

Country	cases	deaths
United States	186,633	3,833
Italy	105,792	12,428
Spain	95,923	8,464
China	81,518	3,305
Germany	71,690	775
France	51,487	3,516
Iran	44,606	2,898
United Kingdom	25,150	1,808
Switzerland	16,597	432
Turkey	13,531	214
Belgium	12,775	705
Netherlands	12,595	1,039
Austria	10,088	128
South Korea	9,786	162
Canada	8,591	100
Portugal	7,443	160
Brazil	5,717	201

that our world would soon be hit by a severe pandemic because air travel can take infected people almost instantly across vast distances, making local disease outbreaks global before effective limiting action can be taken.

We do not yet know how or when the COVID-19 pandemic will end. At present, there is no effective vaccine or treatment for the disease. My own belief is that monoclonal antibody techniques will be helpful in quickly developing antibodies for the treatment of the disease. For inexpensive mass-production of these antibodies, gene-splicing techniques may be helpful. These techniques are discussed in Chapter 3 and Chapter 4.

The COVID-19 pandemic has exposed many of the faults of the “status quo”, to which corporate oligarchs wish us to return after the epidemic has run its course. We must try to use the disaster as a way to return to something better than we had before. For example, the climate emergency must be adequately addressed. Our economic systems must also be reformed, so that they will work for the broad public good, rather than for the benefit of a small number of very wealthy people.

Table 11.2: **Confirmed cases and deaths as of 13 April, 2020**

Country	cases	deaths
United States	561,103	22,106
Spain	166,831	17,209
Italy	156,363	19,899
Germany	127,854	3,022
France	95,403	14,393
United Kingdom	84,279	10,612
China	82,160	3,341
Iran	71,686	4,474
Turkey	56,956	1,198
Belgium	29,647	3,600
Netherlands	25,587	2,737
Switzerland	25,398	1,103
Canada	24,366	718
Brazil	22,318	1,230
Portugal	16,585	504
Russia	15,770	130
Austria	13,945	350

Table 11.3: **Confirmed cases and deaths as of 25 May, 2020**

Country	cases	deaths
United States	1,694,723	99,427
Brazil	374,898	23,473
Russia	353,427	3,633
United Kingdom	261,184	36,914
Spain	235,400	26,834
Italy	230,158	32,877
Germany	180,789	8,428
Turkey	157,814	4,369
France	145,279	28,432
India	138,845	4,021
Iran	137,724	7,451
Peru	123,979	3,629
Canada	85,711	6,545
China	82,985	4,634
Saudi Arabia	74,795	399
Chile	73,997	761
Mexico	68,620	7,394

Table 11.4: Some pandemics of the past

name	time period	type	deaths
Antonine Plague	165-180	smallpox or measles	5,000,000
Japanese Smallpox	735-737	Variola major virus	1,000,000
Plague of Justinian	541-542	Yersinia pestis bacteria	c.40,000,000
Black Death	1347-1351	Yersinia pestis bacteria	200,000,000
New World Smallpox	1320-	Variola major virus	56,000,000
Plague of London	1665	Yersinia pestis bacteria	100,000
Italian plague	1629-1631	Yersinia pestis bacteria	1,000,000
Cholera Pandemics	1817-1923	V. cholerae bacteria	1,000,000+
Third Plague	1885	Yersinia pestis bacteria	12,000,000
Yellow Fever	Late 1800s	Yellow Fever virus	c.125,000
Russian Flu	1889-1890	Believed to be H2N2	1,000,000
Spanish Flu	1918-1919	H1N1 virus	c.45,000,000
Asian Flu	1957-1958	H2N2 virus	1,100,000
Hong Kong Flu	1968-1970	H3N2 virus	1,000,000
HIV/AIDS	1981-	HIV/AIDS virus	c.30,000,000
Swine Flu	2009-2010	H1N1 virus	200,000

We need solidarity, not sanctions

According to the United Nations Charter, only the Security Council may impose sanctions. No individual nation may do so. Nevertheless, the United States currently imposes economic sanctions on Iran, North Korea, Sudan, Cuba, Venezuela, Belarus, Burundi, Central African Republic, China, Comoros, Democratic Republic of the Congo, Equatorial Guinea, Eritria, Iraq, Lebanon, Libya, Mauritania, Myanmar, Nicaragua, Papua New Guinea, Russia, Somalia, South Sudan, Turkmenistan, Ukraine, Venezuela, Yemen and Zimbabwe.

Besides violating the United Nations Charter, these unilaterally imposed sanctions also violate the Fourth Geneva Convention, under which collective punishment is a war crime. Article 33 states that “No protected person may be punished for an offense that he or she did not personally commit”.

The sanctions that are currently being imposed on Iran are also an example of collective punishment. They are damaging the health of ordinary Iranian citizens, who can in no way be blamed for the policies of their government. According to Wikipedia: “Pharmaceuticals and medical equipment do not fall under the international sanctions, but the country is facing shortages of drugs for the treatment of 30 illnesses, including cancer, heart and breathing problems, thalassemia and multiple sclerosis, because Iran is not allowed to use International payment systems.... In addition, there are 40,000 haemophiliacs who can’t get anti-clotting medicines... An estimated 23,000 Iranians with HIV/Aids have had their access to the drugs they need to keep alive severely restricted.”

During the present COVID-19 pandemic, economic sanctions are particularly cruel and inhuman. They deprive the affected nations of desperately-needed face masks, respirators and medicines. During this terrible emergency, humanity must unite. We need solidarity, not sanctions!

Gestures of solidarity during the pandemic

Here are a few stories of solidarity during the COVID-19 crisis:

According to an article by Shannon Liao, published by CNN Business on March 14, 2020, “Chinese billionaire and Alibaba co-founder Jack Ma said he will donate 500,000 coronavirus testing kits and one million face masks to the United States... Ma has donated one million masks to Japan as of March 2 and had been attempting to ship one million masks to Iran as of March 6, according to his Weibo posts. In a March 11 post, he wrote that 1.8 million masks and 100,000 testing kits would go to Europe, with the first batch arriving in Belgium this week. He shared plans to donate to Italy and Spain, two other countries hard-hit by the virus, as well.”

Cuba has sent medical doctors and nurses to combat the COVID-19 pandemic in Italy. Cuba has also deployed doctors to Venezuela, Nicaragua, Jamaica, Suriname and Grenada.

On 3 April, 2020, the World Health Organization and UNESCO “announced an agreement to work together on COVID-19 response, through the historic COVID-19 Solidarity Response Fund powered by the United Nations Foundation and Swiss Philanthropy Foundation. The COVID-19 Solidarity Response Fund has been set up to facilitate an

unprecedented global response by supporting the WHO Strategic Preparedness and Response Plan. As part of the agreement, an initial portion of the money from the Fund - which currently stands at more than \$127 million - will flow to UNICEF for its work with vulnerable children and communities all over the world.”

Antonio Guterres proposes a global ceasefire

On 23 March, 2020, the United Nations Secretary General Antonio Guterres said:

“Our world faces a common enemy: COVID-19. The virus does not care about nationality or ethnicity, faction or faith. It attacks all, relentlessly. Meanwhile, armed conflict rages on around the world. The most vulnerable - women and children, people with disabilities, the marginalized and the displaced - pay the highest price. They are also at the highest risk of suffering devastating losses from COVID-19. Let’s not forget that in war-ravaged countries, health systems have collapsed. Health professionals, already few in number, have often been targeted. Refugees and others displaced by violent conflict are doubly vulnerable. The fury of the virus illustrates the folly of war. That is why today, I am calling for an immediate global ceasefire in all corners of the world. It is time to put armed conflict on lockdown and focus together on the true fight of our lives.”

We can learn from the pandemic

Terrible as it is, the COVID-19 pandemic may be able to teach us something. Humanity must work together to solve our common problems. We must abandon the folly of war, and use the vast sums of money now wasted (or worse than wasted) on armaments for constructive purposes, for example public health programs. We must work together to rebuild the world after the pandemic. The new world that we build, must be sustainable, and it must have both an environmental conscience and a social conscience

11.2 China

Wikipedia states that “The 2019-20 coronavirus pandemic first manifested as a cluster of mysterious, suspected pneumonia cases in Wuhan, the capital of Hubei, China. A Wuhan hospital notified the local center for disease control and prevention (CDC) and health commissions on 27 December 2019. On 31 December Wuhan CDC admitted that there was a cluster of unknown pneumonia cases related to Hunan Seafood Market after the unverified documents appeared on the Internet. The potential disease outbreak soon drew nationwide attention including that of the National Health Commission (NHC) in Beijing who sent experts to Wuhan on the following day. On 8 January, a new coronavirus was identified as the cause of the pneumonia.[7] The sequence of the virus was soon published on an open-access database... WHO declared the outbreak a ”Public Health Emergency of International Concern” on 31 January[12] for fear that the virus spread beyond China to where there is no robust healthcare system despite its confidence that China was ‘doing all that it can’.”

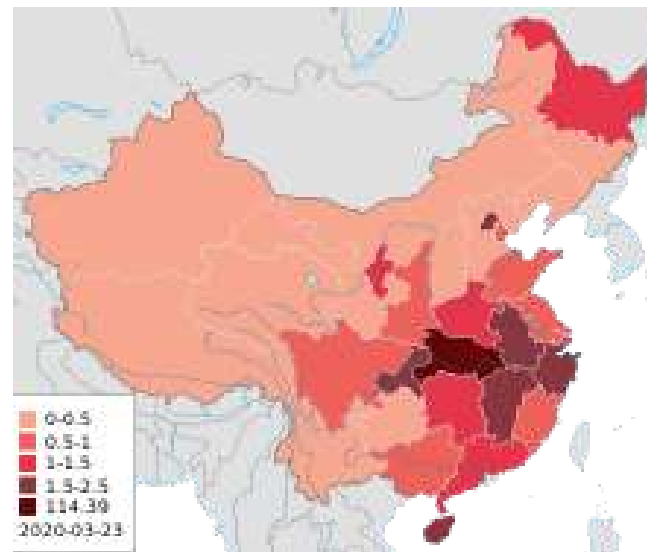


Figure 11.1: A map of China showing the number of cases per 100,000 people

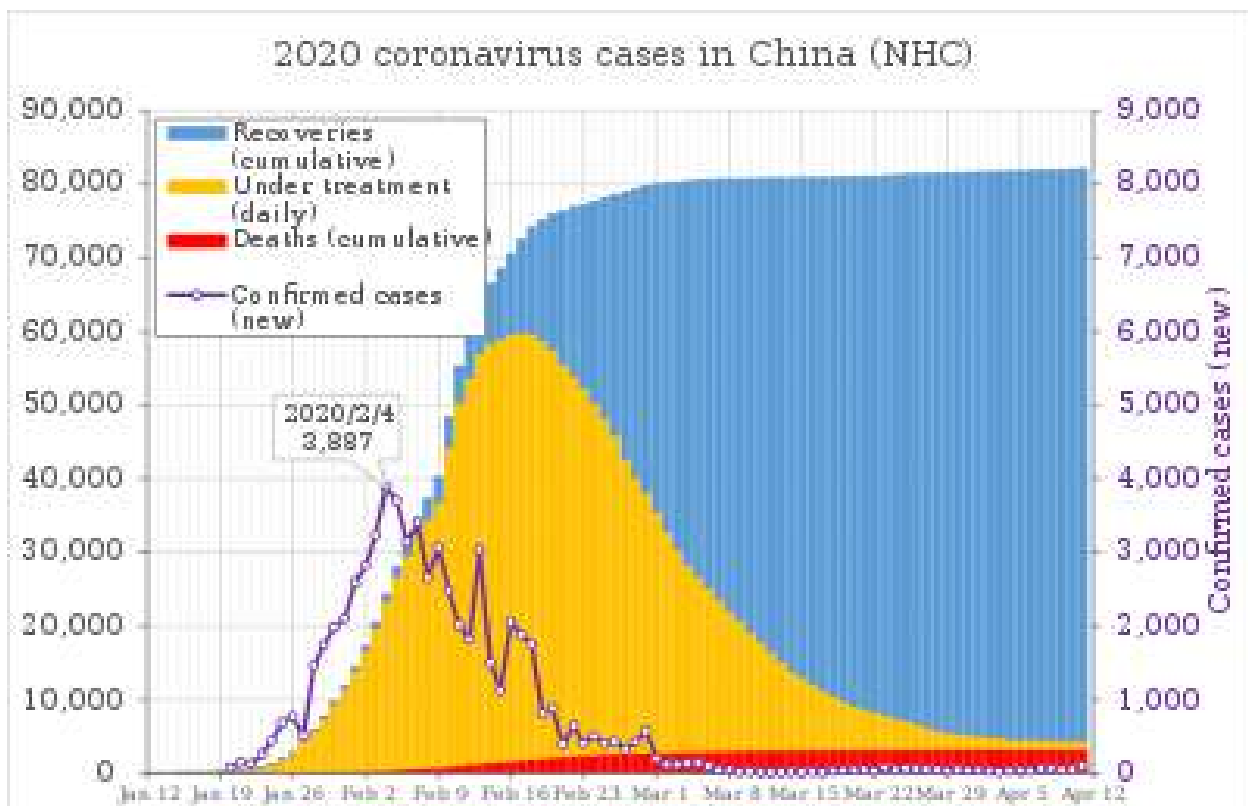


Figure 11.2: Because of the very strong actions of the Chinese government, the number of new cases of COVID-19 in the country has fallen almost to zero, as of April, 2020. However, opening the Chinese economy could lead to a new wave of infections.

11.3 Europe

The reaction of countries in Europe to the COVID-19 pandemic was initially much too slow, and thus the disease gained a firm foothold, especially in Italy, Spain, Germany, France and the United Kingdom. After this initial period of delay, drastic action was taken by most countries in Europe. Borders were closed, (except to very essential transport of goods), schools and universities were closed, restaurants, bars, hairdressers and churches were closed, public meetings were forbidden, and people were confined to their homes. By the time that these drastic actions were taken, however, it was too late to stop massive infection rates and deaths. In both Spain and Italy, the health services were completely overwhelmed by patients in need of intensive care, and burial services could not keep up with the load, so that corpses had to be kept in refrigerated trucks.

In the United Kingdom, Prime Minister Boris Johnson, who had initially belittled the severity of the situation, himself became severely ill with COVID-19, and spent a week in an intensive care unit receiving oxygen. Prince Charles, heir to the British throne, also became ill with COVID-19, but luckily his case was a light one. He opened a new emergency hospital in London via a television link. Meanwhile, Queen Elizabeth, speaking to her nation on television, likened the situation to the dark days of World War II, and urged people to be brave.

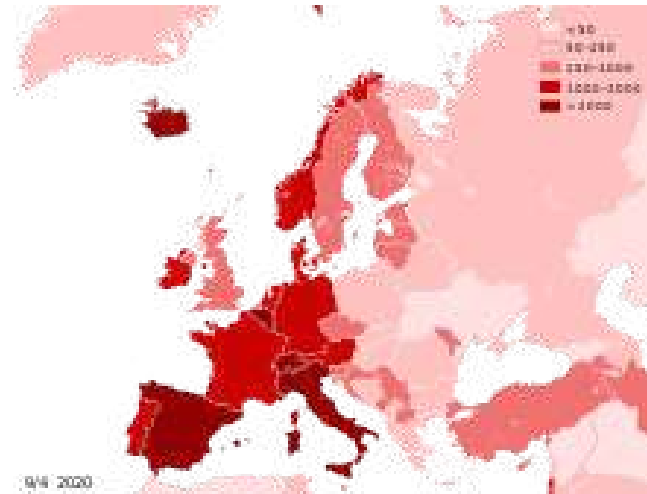


Figure 11.3: Confirmed cases of SARS-CoV-2 infected people in relation to the population of the country (cases per million inhabitants). The numbers are not comparable, as the testing strategy differs between countries and time periods.

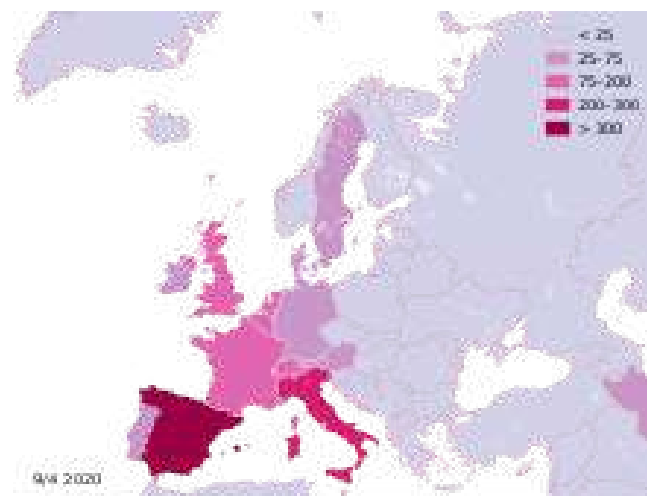


Figure 11.4: Cumulative number of deaths per million inhabitants from COVID-19 in Europe.

11.4 The United States

Here are some quotations from an article entitled *The US Is A Failed State, And COVID-19 Proves It* by Danny Haiphong, published on April 8, 2020:

“For two months, China heroically employed mass quarantines, built emergency temporary hospitals in record time, and redirected much of its economic and political infrastructure toward containing COVID-19. The U.S. exploited the disease to demonize China only to find itself unprepared for the blowback. President Trump declined testing kit assistance from the World Health Organization (WHO), allowing the virus to spread virtually undetected. Exorbitant healthcare costs and the lack of medical leave have deterred workers from taking the necessary precautions outlined by the WHO and the CDC. With no planned, nationalized response to the outbreak on U.S. shores, local governments have facilitated haphazard curfews and recommendations for more ‘social distancing’ in attempt to stem the tide.

“Forty years-plus of neoliberal shock therapy has turned the United States into the very failed state that the political class constantly complains about in reference to other nations. The U.S. cannot provide free healthcare to the masses because shareholders in the pharmaceutical and insurance industries are more committed to their profits. The U.S. cannot provide homes to the homeless because capitalists in finance, insurance, and real estate industries (FIRE) view public housing as an impediment toward their widening share of the market. The U.S. cannot possibly provide the conditions necessary for a rapid and effective response to a pandemic because private profits remain in command of society.

“Private profits have indeed been prioritized throughout the COVID-19 crisis. The Federal Reserve didn’t hesitate to pump 1.5 trillion dollars into the plunging stock market. Not a cent of a trillion dollars was invested in student and other debt relief, a moratorium on evictions and foreclosures, or toward the development of medical infrastructure to make up for a massive shortfall in masks, ICU beds, and ventilators. What the masses in the United States did receive was a Congressional bill for COVID-19 relief that House leader Pelosi proudly endorsed. The bill possessed a corporate friendly loophole that left nearly eighty percent of workers out of a 14-day federally mandated and funded medical leave benefit...

“The U.S. is a failed state because it has nothing to offer the world but death, destruction, and destitution. Iranians continue to die of treatable diseases and COVID-19 due to U.S. sanctions. The United States continues to deploy its trillion-dollar military albatross to murder, starve, and pollute the vast majority of the world’s people. No calls have been made to halt operations in the U.S.’ eight hundred military bases or to rollback AFRICOM amid the spread of COVID-19.”

Here are some quotations from an article entitled *The Billionaires That Want You to Get Back to Work No Matter the Cost to Your Health*, by Dan Loeb, Kevin Griffin, Paul Tudor Jones, and Stephen Schwarzman:

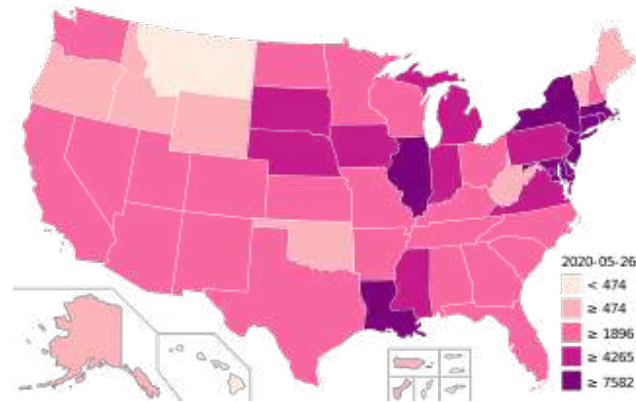


Figure 11.5: Confirmed cases of COVID-19 per million inhabitants by state.

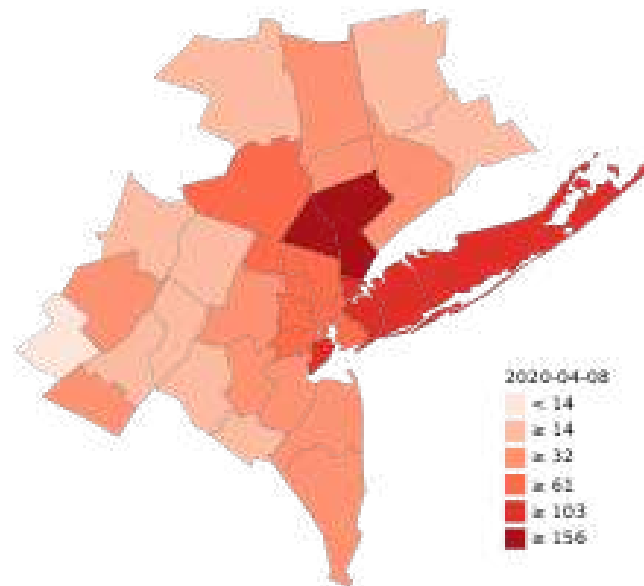


Figure 11.6: Confirmed cases per 10,000 residents near New York City. With around 200,000 as of April 8, the New York metropolitan area contained about half the nation's confirmed cases.

“On March 24th the Trump administration held a call with some of the wealthiest investors on Wall Street to discuss how COVID-19 and state-by-state restrictions on public gathering and businesses were affecting stock market performance, financial markets, and the broader economy. The call reportedly included heavy hitters such as private equity giant Stephen Schwarzman from Blackstone (net worth \$17.1 billion) and hedge fund managers Ken Griffin (net worth \$12.4 billion) from Citadel, Dan Loeb (net worth \$2.8 billion) from Third Point, and Paul Tudor Jones (net worth \$5.1 billion) among others. The group urged the administration to set a specific date to ease public health restrictions in order to reassure markets.

“Just hours after the call with the Wall Street elite, Trump went on air for a virtual town hall on Fox News and declared that he would like to see the economy ‘opened up and just raring to go’ by April 12th. The arbitrary deadline set by Trump at the behest of these investors was much earlier than what health experts predicted would be necessary to mitigate the spread of the virus. A few days later - after Congress passed a stimulus bill that created a \$500 billion slush fund to bail out big business - Trump walked back his commitment to having the economy ‘opened up’ by Easter. However, the power dynamic had already become crystal clear - Trump’s billionaire backers are pushing him to prioritize financial markets over public health and the creation of a fair safety net for workers impacted by the coronavirus shutdown.”

11.5 India

Although India currently has relatively few confirmed cases of COVID-19 and deaths from the disease, one fears for the future. A large fraction of India’s 1.3 billion people are poor, and live in crowded conditions, often without adequate supplies of clean water. Under such conditions, the social distancing and frequent hand-washing needed to prevent the spread of the disease are impossible. The economic impact of the pandemic will also hit India’s poor very hard. Those without jobs will face starvation. Finally, as the number of cases of COVID-19 rises, the country’s hospital system, inadequate even in normal times, will be completely overwhelmed.

According to an article by Akash Bisht, “India has 0.7 hospital beds for every 100,000 people, far fewer than countries like South Korea (six per 100,000) that have been able to successfully contain the virus.

“Ventilators are also in short supply. India has nearly 100,000 ventilators but most are owned by private hospitals and are already being used by existing patients with critical illnesses.

“Sundaraman from the People’s Health Movement highlighted how the stress of lockdown appeared to be overtaking the stress of the disease. ‘What is really worrying is the huge migration that has started across the country. You just can’t stop public transport like that. The lockdown should have been done in a phased way. People shouldn’t be stranded without income, without work. Even in an authoritarian state, they would know that this is something the state has to do,’ said Sundaraman.”



Figure 11.7: With only a few hours warning, India's Prime Minister Modi imposed a 21 day lockdown on the country. The lockdown left many millions of migrant workers trapped in cities with no income, and no means of returning to their native villages except walking. Many chose to walk hundreds of kilometers to reach their homes.



Figure 11.8: Many of India's estimated 139 million internal migrant workers are trapped in cities far from home after being laid off due to government measures to curb the spread of the coronavirus, leading aid agencies to warn of a looming crisis. The photo shown migrants trying to board one of the last available buses.

11.6 Africa

At present (12 April, 2020) there are relatively few cases of COVID-19 in Africa. However, this situation may very easily change for the worse. In most African countries, hospital beds are in short supply. Also, many poor people live in crowded conditions, without a good supply of safe water for the frequent hand-washing that is recommended as an important measure to prevent the spread of COVID-19. Thus, one worries about the future.

The economic impact of the pandemic is already severe. In many African countries, tourism is an important source of income, and this, of course, has disappeared.

11.7 The poor suffer most

The poor are suffering most from the COVID-19 pandemic. While the rich can isolate themselves in comfort, working people with no savings are faced with the choice between risking their lives in unsafe work-places or starvation because of lack of income.

Here are quotations from a recently-published article by Jake Johnson entitled *‘Grotesque’: While 41 Million People Lost Jobs Due to Covid-19, US Billionaires Grew Nearly \$500 Billion Richer*.¹

“Billionaire wealth is surging at the same time that millions face suffering, hardship, and loss of life. This is a grotesque indicator of the deep inequalities in U.S. society.”

Statistics released Thursday by the U.S. Department of Labor show that with 2.1 million new unemployment claims filed last week, a staggering 40.7 million Americans have lost their jobs over just the past 10 weeks as mass layoffs induced by the coronavirus pandemic continue.

During that same 10-week period, according to a new analysis by the Institute for Policy Studies (IPS), the combined net worth of America’s billionaires soared by nearly half a trillion dollars, bringing their total wealth to \$3.4 trillion.

“Billionaire wealth is surging at the same time that millions face suffering, hardship, and loss of life,” IPS, a progressive think tank, said Thursday, noting that more than 100,000 people have died of Covid-19 in the United States. **“This is a grotesque indicator of the deep inequalities in U.S. society.”...**

“This isn’t just unsustainable,” IPS tweeted of the surge in billionaire wealth. **“It’s unconscionable.”**

The Trump administration is also taking steps to prevent workers or their families from suing employers if the workers fall ill or die because of unsafe working conditions. Here are some quotations from an article by Mike Ludwig, entitled *Trump and GOP Want COVID-19 Protections for Bosses - But Not Workers*:²

¹Common Dreams, May 28, 2020

²Truthout, May 27, 2020

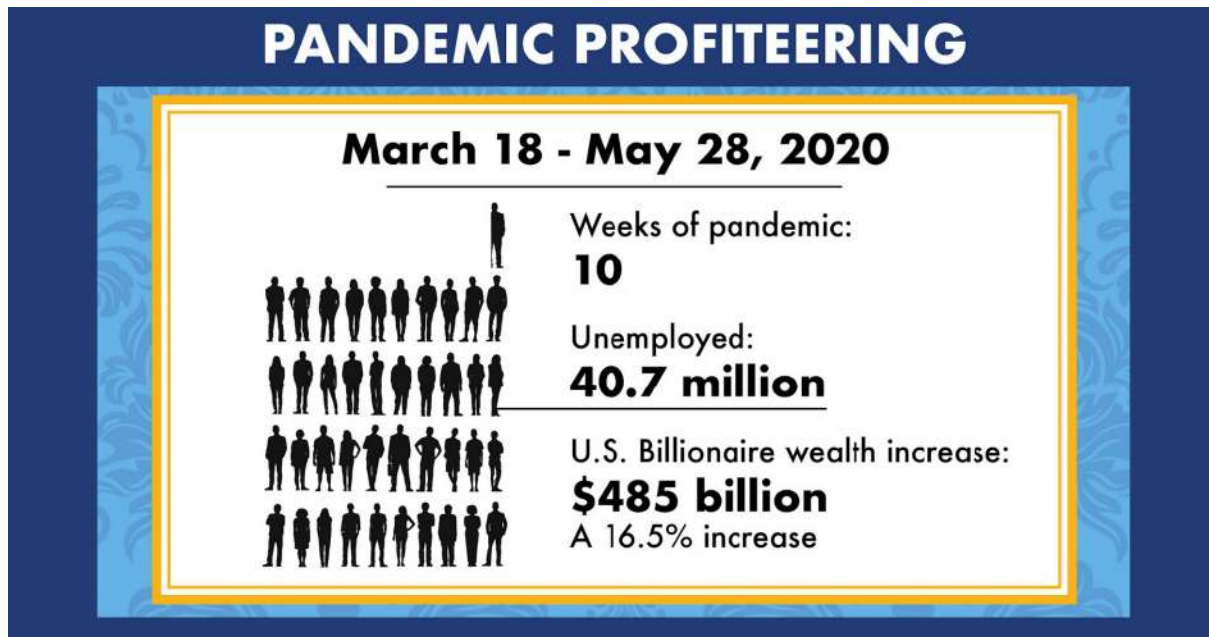


Figure 11.9: Amazon CEO Jeff Bezos - the richest man in the world - and Facebook CEO Mark Zuckerberg saw their combined wealth soar by \$63 billion over the last 10 weeks, according to the Institute for Policy Studies. (Image: Institute for Policy Studies)

A new Morning Consult poll finds that nearly three-quarters of all voters - including 63 percent of Republicans - agree that COVID-19 testing should be required for workers returning to their jobs as states lift stay-at-home orders and businesses reopen, but don't expect to see any such requirement come from the Trump administration or Republicans in Congress. The GOP has consistently sided with employers over issues of workplace safety as pro-business forces push to reopen the country and jump-start the economy, which Trump sees as crucial to his reelection.

Majority Leader Mitch McConnell and the Republican leadership in the Senate announced on Tuesday legislation that would provide businesses with legal protection from lawsuits if their employees or customers get sick on the job, and they have vowed numerous times in recent weeks to hold up the next COVID-19 aid package in order to pass secure protections for employers.

Meanwhile, Trump's Labor Department was recently sued by unions after ignoring multiple petitions demanding regulators issue enforceable safety standards to protect those working during the pandemic, despite outcry from nurses and other essential workers who have suffered under shortages of personal protective equipment (PPE) since the beginning of the outbreak. The department's enforcement arm, the Occupational Safety and Health Admin-



Figure 11.10: President Trump makes a statement in the White House briefing room on May 22, 2020, in Washington, D.C.

istration (OSHA), has instead issued “guidance,” fact sheets and pamphlets, keeping in line with Trump’s deregulatory agenda...

“For every worker working right now, this administration has made it clear that they don’t care about worker safety and health, what they care about is protecting employers’ - big companies’ - profits and protecting them from liability for negligence,” said Debbie Berkowitz, the Worker Safety and Health program director at the National Employment Law Project (NELP), in an interview. “The GOP is now racing to make sure that employers don’t have to provide any protections.”

The Trump administration seems to regard workers as “human capital stock”. Here are some quotations from an article by William Rivers Pitt, entitled *Trump Adviser Says “Human Capital Stock” Should Get Back to Work*.³

³Truthout, May 26, 2020

As the United States trembles on the verge of 100,000 COVID deaths and nearly 1.7 million confirmed infections - a “badge of honor” in the fetid mind of Donald Trump - the question of how we got to this horrific place stands out like a pustule on the skin of the nation. Trump has wielded outsize influence in driving this ship onto the reef, to be sure, but he has not acted alone.

Enter Kevin Hassett, current senior adviser and former chairman of the Council of Economic Advisers for the White House. Men like Hassett pollute the Trump administration from the basement to the roof deck, and they have done much to turn a terrible situation into a nigh-inescapable nightmare...

On Sunday, as the nation observed Memorial Day weekend, Hassett went on CNN to again peddle his “No Big Deal” snake oil, and did so in a way that will not be soon forgotten. “Our capital stock hasn’t been destroyed,” he said of the damage done by COVID. “Our human capital stock is ready to get back to work. There are lots of reasons to believe that we can get going way faster than we have in previous crises.”

“Our human capital stock is ready to get back to work.”

Stock (noun): farm animals such as cattle, pigs and sheep, bred and kept for their meat or milk; livestock.

Let that sink in good and deep, down through the skin and into the marrow within your bones. Hassett’s remarkable statement on Sunday puts into stark relief the reason why this disaster has unfolded as it has.

It is far more than mere gross incompetence. This White House does not see us as human beings with intrinsic value and rights of our own. We are cattle who exist only for the profit of the few, sheep to be sheared, pigs to be hung up for slaughter. To them, we are only meat for the machine, nothing more than an entirely expendable commodity.

There is also a racial dimension to the suffering of the poor in the United States. Here is an excerpt from an article by Gabe Ortez entitled *Black and Latino communities continue to be disproportionately hit by pandemic, poll finds*.⁴

A new poll from ABC News/Ipsos continues to shine an important light on the disproportionate impact of the novel coronavirus pandemic on Black and Latino communities. “Thirty percent of black adults and 26% of Latino adults in the country said they know a victim of the coronavirus, who died either from the disease or from complications related to the virus,” ABC News reports. “For white adults, the corresponding figure is 10%”...

“This poll confirms what we know in Nevada,” U.S. Sen. Catherine Cortez Masto of Nevada said in a release. “Our Latino communities are getting hit hard by the twin public health and economic crises of coronavirus.”

⁴Daily Kos, May 22, 2020



Figure 11.11: COVID-19: Hunger gnaws at the edges of the world.

Turning to the larger world, we can observe that starvation produced by the COVID-19 pandemic may be an even greater danger than the disease itself. Here are some quotations from an article by Vijay Prashad and Richard Pithouse, entitled *COVID-19: Hunger Gnaws at the Edges of the World*:⁵

What the International Monetary Fund calls the Great Lockdown sent 2.7 billion people into either full unemployment or near unemployment, with many people one or two days away from desperate poverty and hunger, according to the International Labour Organization.

Starvation is already evident in many regions of the world. Social movements are doing what they can to organize horizontal forms of solidarity from below, but food riots are already a reality in India, South Africa, Honduras - everywhere, really. In many countries, states are responding with militarized forms of force, with bullets rather than bread.

Before the pandemic, in 2014, the United Nations' Food and Agriculture Organization wrote: "Current food production and distribution systems are failing to feed the world." That is a damning statement. It needs to be taken seriously. Half-hearted measures are not going to work. We need a social revolution in the world of food that breaks the grip of capital over the production and distribution of food.

Climate change will also impact the Global South more severely than the North. Here are some excerpts from an article by Jennifer Johnson entitled *For The Global South, Coro-*

⁵Consortium News, May 19, 2020



Figure 11.12: World wealth levels in 2004. Countries with per capita wealth greater than 100,000 USD are shown in red, while those with per capita wealth less than 5,000 USD are shown in blue.



Figure 11.13: In many countries, children live by scavenging from garbage dumps.



Figure 11.14: Even in rich countries, many millions of people live in poverty,

*navirus Is Only The Beginning:*⁶

At 1.5°C of warming, weather extremes will become more prevalent across the world, as will high and low extremes in rainfall. According to a 2018 report by the IPCC, the UN’s climate science body, limiting warming to 1.5°C, rather than 2°C, could mean that 420 million fewer people are regularly exposed to extreme heatwaves. Increases in the frequency and magnitude of droughts in some of the world’s warmer regions, such as the Mediterranean and southern Africa, will likely be “substantially larger” at 2°C than at 1.5°C. Climate breakdown and Covid-19 share one definitive similarity: the most vulnerable populations, those least equipped to deal with a crisis, are those that are being affected most profoundly.

The coronavirus has shown us that the very institutions which levied unconscionable debts upon the Global South are reluctant to offer genuine aid. Since the 1980s, the International Monetary Fund (IMF) and the World Bank have forced austerity onto some of the world’s poorest countries as a condition for receiving a new loan, or a lower interest rate on an existing one. On paper, these “structural adjustment” programs are meant to make recipient states more competitive and stimulate economic growth. But in practice, they’ve prohibited Global South nations from building the public services necessary for the effective handling of a crisis...

Countries contending with predatory loan repayments and structural adjustment regimes were simply not equipped to deal with a pandemic or its economic fallout. Wealthy lender nations have the ability to hike up their own

⁶Tribune, May 26, 2020

national debt burdens to keep businesses on ice and services in action while the virus abates. The poorest nations of the Global South don't enjoy this level of policy freedom. This is no coincidence. In limiting a government's capacity to regulate its economy, the Global North has opened up channels for its own corporations to expand southward and engage in resource extraction. Such wide-open avenues will not readily be closed, even as the climate crisis advances.

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Chapter 12

THE GREEN NEW DEAL

12.1 Cutting military budgets

The cost of US wars since 2001

According to the National Priorities Project¹, the total cost of US wars between November 11, 2001 and April 8, 2019 has been 4.77 trillion US dollars, or written out in detail \$4,773,527,023,293.00. Every hour US taxpayers are paying 32.08 million dollars for the total costs of war. Globally, the world spent 1.9 trillion dollars on military budgets in 2018, according to the Stockholm International Peace Research Institute.

Every war is a war against children

War was always madness, always immoral, always the cause of unspeakable suffering, economic waste and widespread destruction, and always a source of poverty, hate, barbarism and endless cycles of revenge and counter-revenge. It has always been a crime for soldiers to kill people, just as it is a crime for murderers in civil society to kill people. No flag has ever been wide enough to cover up atrocities. Every war is a war against children.

But today, the development of all-destroying modern weapons has put war completely beyond the bounds of sanity and elementary humanity. The danger of a catastrophic nuclear war casts a dark shadow over the future of our species. It also casts a very black shadow over the future of the global environment. The environmental consequences of a massive exchange of nuclear weapons have been treated in a number of studies by meteorologists and other experts from both East and West. Scientists believe that the “nuclear winter” effect could kill a large proportion of the plants, animals and humans on earth.

¹<https://www.nationalpriorities.org/cost-of/war/>

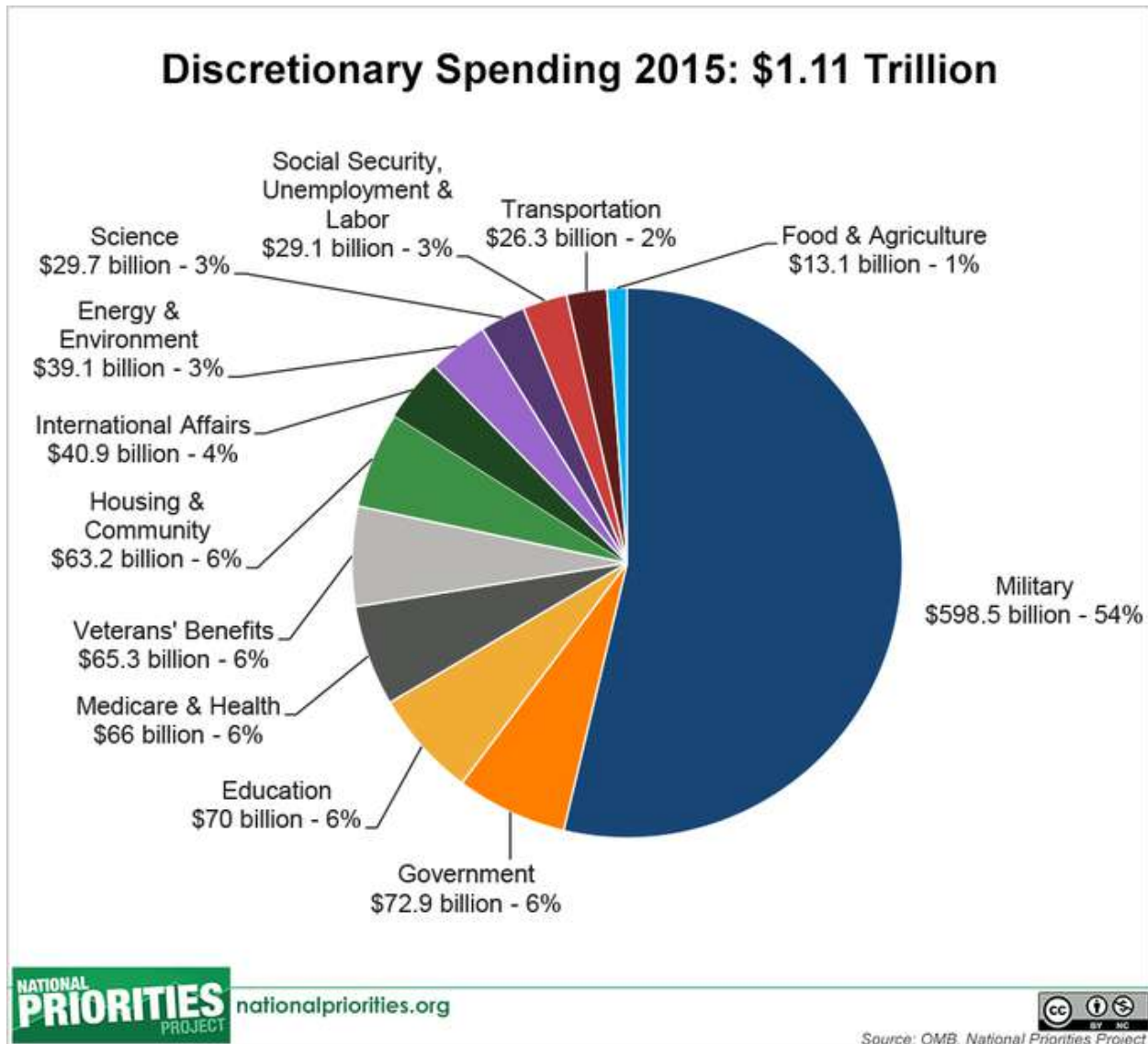


Figure 12.1: In the fiscal year US 2015, military spending accounted for 54 percent of all federal discretionary spending, a total of \$598.5 billion. Military spending includes: all regular activities of the Department of Defense; war spending; nuclear weapons spending; international military assistance; and other Pentagon-related spending.

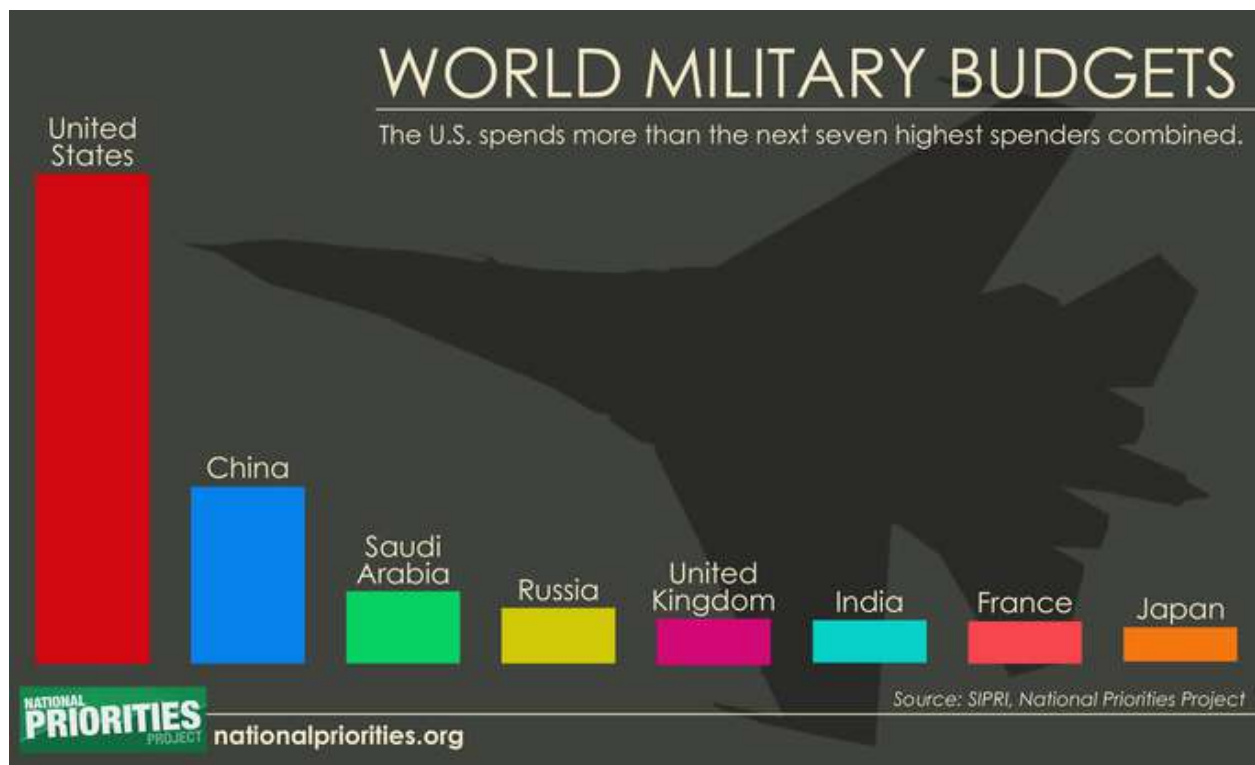


Figure 12.2: U.S. military spending dwarfs the budget of the #2 country - China. For every dollar China spends on its military, the U.S. spends \$2.77. The U.S. outpaces all other nations in military expenditures. World military spending totaled more than \$1.6 trillion in 2015. The U.S. accounted for 37 percent of the total. U.S. military expenditures are roughly the size of the next seven largest military budgets around the world, combined.



Figure 12.3: An attempt was made to audit Pentagon spending, but the firm entrusted with this task eventually pronounced it impossible because of confusing records and lack of records. Trillions of dollars are unaccounted for.



Figure 12.4: No War! No Warming! There are two important connections between war and global warming. Firstly, military organizations run on oil and are the largest single users of fossil fuels. Secondly, and even more importantly, money saved by slashing military budgets would be more than enough to carry out programs to avoid catastrophic climate change.



Figure 12.5: Military-industrial complexes want war. Ordinary people do not want it. According to the Stockholm International Peace Research Institute, global military expenses in 2018 amounted to 1.8 trillion dollars. This almost unimaginable river of money is the basic reason why the terrible suffering and waste of war is inflicted on the world's people.

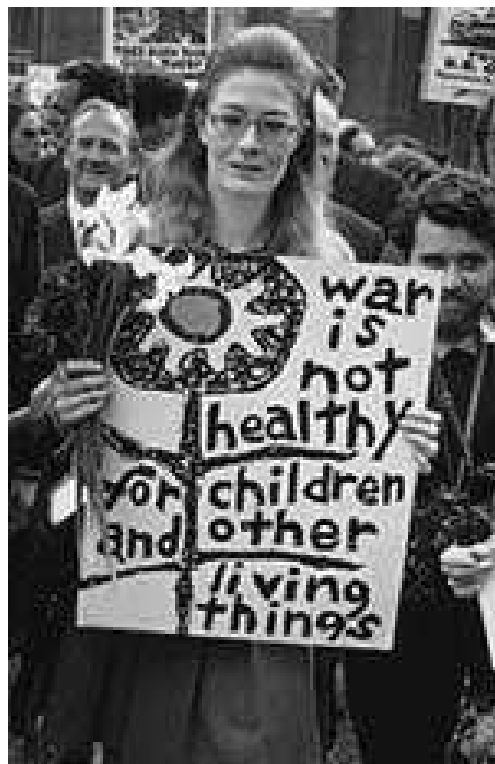


Figure 12.6: The actress Vanessa Redgrave was part of a 1968 protest against the Vietnam War.



Figure 12.7: We must do whatever is necessary to save the future.



Figure 12.8: Young protesters from the Sunrise Movement call on leaders to back the Green New Deal.

12.2 The Extinction Rebellion

In an open letter to governments, reported in *The Guardian* ², leaders of the environmental movement said:

In our complex, interdependent global ecosystem, life is dying, with species extinction accelerating. The climate crisis is worsening much faster than previously predicted. Every single day 200 species are becoming extinct. This desperate situation can't continue.

Political leaders worldwide are failing to address the environmental crisis. If global corporate capitalism continues to drive the international economy, global catastrophe is inevitable.

Complacency and inaction in Britain, the US, Australia, Brazil, across Africa and Asia - all illustrate diverse manifestations of political paralysis, abdicating humankind's grave responsibility for planetary stewardship.

International political organizations and national governments must foreground the climate-emergency issue immediately, urgently drawing up comprehensive policies to address it. Conventionally privileged nations must voluntarily fund comprehensive environment-protection policies in impoverished nations, to compensate the latter for foregoing unsustainable economic growth, and paying recompense for the planet-plundering imperialism of materially privileged nations.

With extreme weather already hitting food production, we demand that governments act now to avoid any risk of hunger, with emergency investment in agro-ecological extreme-weather-resistant food production. We also call for an urgent summit on saving the Arctic icecap, to slow weather disruption of our harvests.

We further call on concerned global citizens to rise up and organize against current complacency in their particular contexts, including indigenous people's rights advocacy, decolonization and reparatory justice - so joining the global movement that's now rebelling against extinction (eg Extinction Rebellion in the UK).

We must collectively do whatever's necessary non-violently, to persuade politicians and business leaders to relinquish their complacency and denial. Their "business as usual" is no longer an option. Global citizens will no longer put up with this failure of our planetary duty.

Every one of us, especially in the materially privileged world, must commit to accepting the need to live more lightly, consume far less, and to not only uphold human rights but also our stewardship responsibilities to the planet.

The letter was signed by 100 academics, authors, politicians and campaigners from

²<https://www.theguardian.com/environment/2018/dec/09/act-now-to-prevent-an-environmental-catastrophe>



Figure 12.9: Young protesters in London demanding action to prevent catastrophic climate change.

across the world. Among them were Vandana Shiva, Noam Chomsky, Naomi Klein and Bill McKibben.

12.3 The cost of inaction

In a sense, the cost of inaction is incalculably high. At stake is the entire future of human civilization and the biosphere. Our children's future and our grandchildren's future will be lost if we do not take rapid action to avoid catastrophic climate change. Nevertheless, scientists studying two of the most dangerous feedback loops, the albedo effect from melting of Arctic sea ice, and the release of methane from melting permafrost, have attempted to put a price tag on the cost of inaction under various scenarios. Their results were recently published in *Nature*³, and reported in *The National Geographic*⁴.

The *National Geographic* article, written by Stephen Leahey and published on April

³<https://www.nature.com/articles/s41467-019-09863-x>

⁴<https://www.msn.com/en-us/weather/topstories/a-warming-arctic-could-cost-the-world-trillions-of-dollars/ar-BBWcxsz?li=BBnbcA1>

GLOBAL ATMOSPHERIC CARBON DIOXIDE SETS NEW RECORD HIGH IN 2017

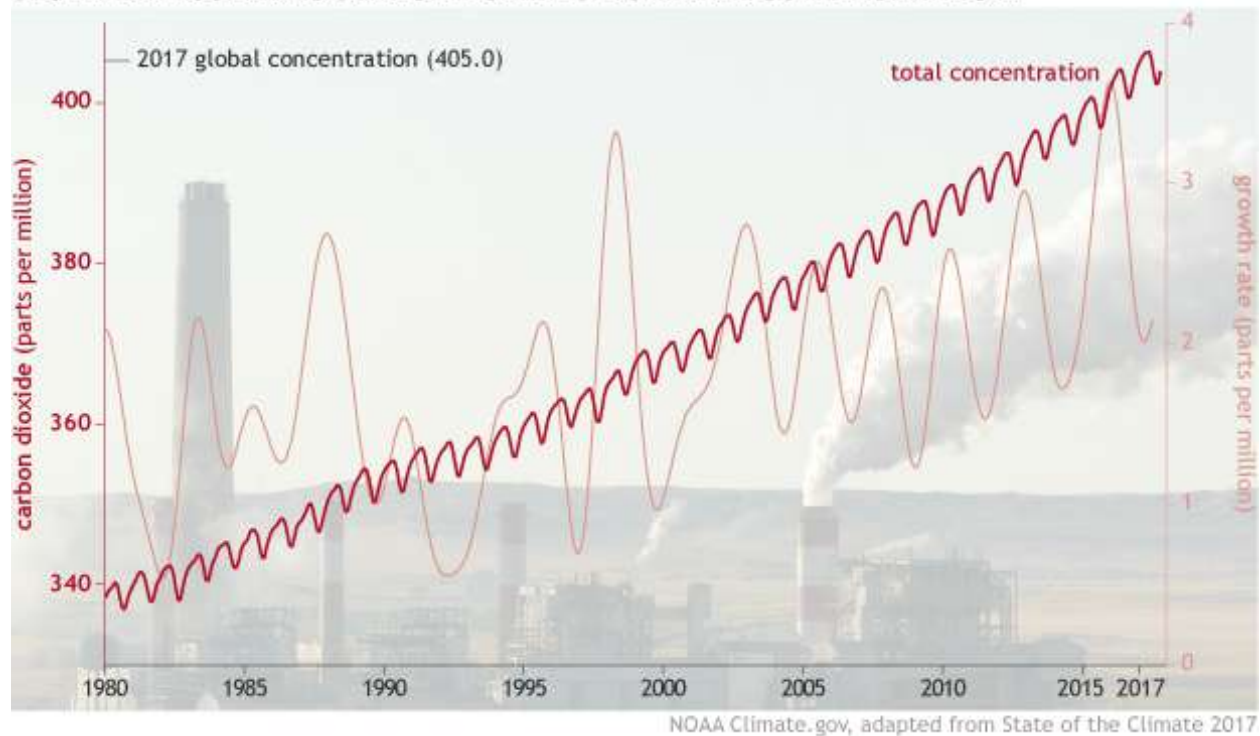


Figure 12.10: Today the atmospheric concentration of CO₂ is 413 ppm., roughly double the pre-industrial concentration. The last time that it was this high was in the Pliocene Epoch 5.3 to 2.6 million years ago. Sea levels were then 20 meters higher than they are right now, and trees were growing at the South Pole. Unless we quickly lower carbon emissions, most coastal cities and low-lying countries will be lost to rising seas.

24, 2019, states the following:

Scientists have long warned that climate change is likely to bring expensive impacts, from rising seas to stronger storms. And a new study comes with a hefty price tag.

A warming Arctic is shifting from white to dark as sea ice melts and land-covered snow retreats, and that means it can absorb even more of the sun's heat. Plus, the Arctic's vast permafrost area is thawing, releasing more heat-trapping carbon and methane. These climate-change-driven feedbacks in the Arctic are accelerating warming even faster and may add nearly \$70 trillion to the overall costs of climate change - even if the world meets the Paris Agreement climate targets, a new study says.

However, if efforts can be made to keep climate change limited to 2.7 degrees Fahrenheit (1.5C), the extra cost of Arctic warming drops to \$25 trillion, new research published in Nature Communications reports. A trillion is a thousand billion. For comparison, the global GDP in 2016 was around \$76 trillion.

"Massive changes are underway in the Arctic. Permafrost and loss of sea ice and snow are two known tipping elements in the climate system," said lead author Dmitry Yumashev of the Pentland Centre for Sustainability in Business, Lancaster University in the United Kingdom.

"We wanted to know what Arctic warming could do to the rest of the world," said Yumashev.

Climate "tipping elements" are also known as tipping points or feedbacks, where a change in a natural system triggers further warming. Last year, a study documented ten tipping points and noted that these can act like a row of dominoes, one pushing another system over. Once started, these tipping points are nearly impossible to stop and risk what researchers called a "Hothouse Earth" state - in which the global average temperature is 4 to 5 degrees Celsius higher, with regions like the Arctic averaging 10 degrees C higher than today.

The Arctic is warming at least twice as fast as the global average. Sea ice has been in decline since the 1990s, exposing a million square miles of ocean. As more solar energy is absorbed it creates what's called the surface albedo feedback...

The \$25 to \$70 trillion cost of Arctic warming adds four to six percent to the total cost of climate change - which is estimated to reach \$1,390 trillion by the year 2300 if emissions cuts are not better than the Paris Agreement. However, the costs of the current business-as-usual path could be more than \$2,000 trillion.

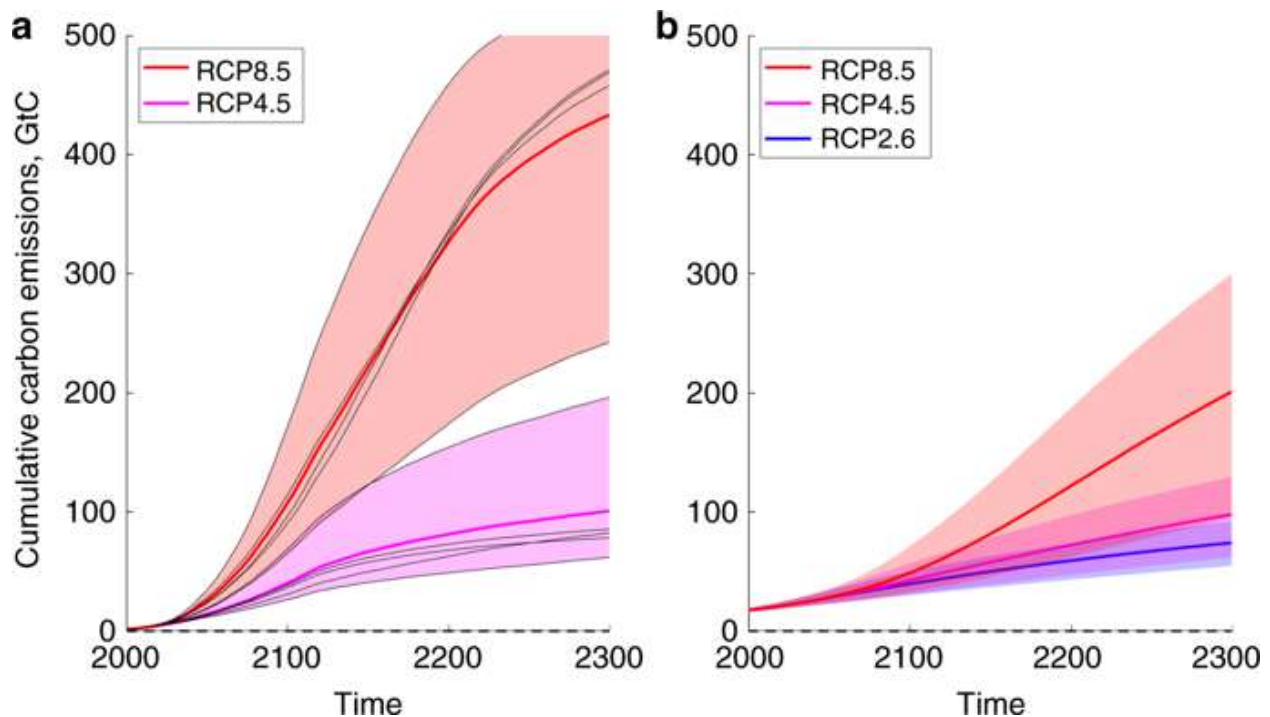


Figure 12.11: Cumulative carbon emissions in gigatons under various scenarios.

Global carbon debt increasing by \$16 trillion annually

Another estimate of the cost of climate inaction has been made by Dr. Gideon Polya in an article entitled “Inescapable \$200-250 Trillion Global Carbon Debt Increasing by \$16 Trillion Annually”⁵. Here are some quotations from the article:

Carbon Debt is simply the damage-related cost of greenhouse gas (GHG) pollution that if not addressed now will inescapably have to be paid by future generations. However GHG emissions continue to rise inexorably and there is no global program to draw down CO₂ and other GHGs from the atmosphere. While young people are now vociferously demanding massive climate action, inescapable global Carbon Debt is \$200-\$250 trillion and increasing by \$16 trillion each year.

Unlike Conventional Debt that can be variously expunged by bankruptcy, printing money or default, Carbon Debt is inescapable - thus, for example, national commitments to GHG pollution reduction made to the 2015 Paris Climate Conference amount to a temperature rise of over 3 degrees Centigrade (3C) , and unless huge sea walls are built Netherlands-style , coastal cities of the world housing hundreds of millions of people will be submerged by rising

⁵<https://countercurrents.org/2019/04/27/inescapable-200-250-trillion-global-carbon-debt-increasing-by-16-trillion-annually-gideon-polya/>

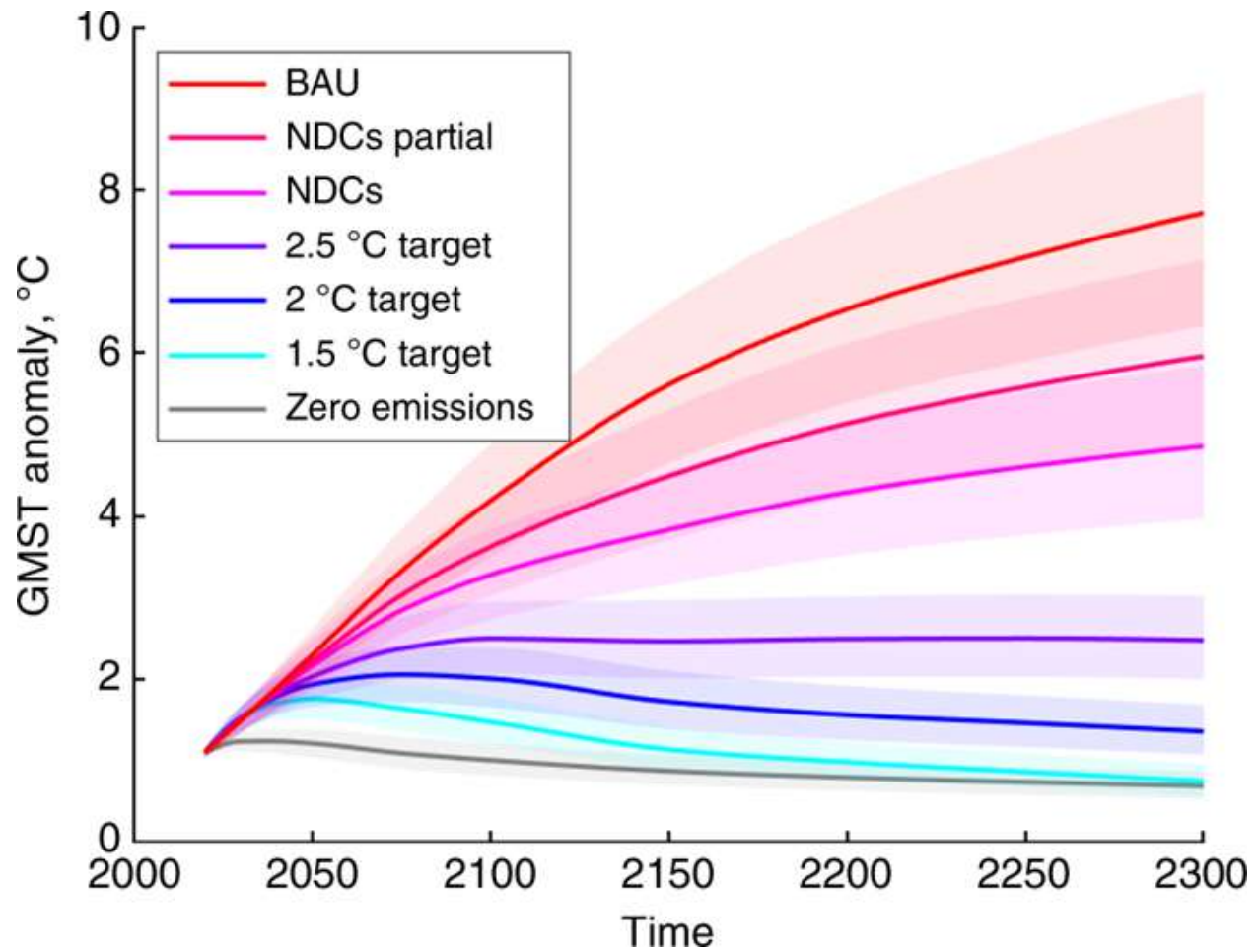


Figure 12.12: Global mean temperature simulations under the range of climate scenarios considered. BAU stands for “Business As Usual”.

sea levels (notably in Asia), mega-delta agricultural lands vital for feeding Humanity will be subject to inundation and salinization, and low-lying Island States will cease to exist

While outright, anti-science climate change denialism is politically entrenched in climate criminal Trump America and its climate criminal lackey Australia, most governments around the world are politically committed to effective climate change denialism through climate change inaction. That climate change inaction is most clearly quantitated in terms of Carbon Debt, but the very term has been white-washed out of public perception by US owned or subverted Mainstream media. Thus the Australian ABC (the taxpayer-funded Australian equivalent of the UK BBC) is self-assertedly “progressive” but a Search of the ABC for the term “Climate Debt” reveals zero (0) reportage. A Search of the self-assertedly “ethical” UK BBC for the term “Climate Debt” yields 9 items with none later than 2009, defining the term or quantifying global or national Carbon Debt.

Explanations for this extraordinary mainstream media lying by omission over Carbon Debt can be variously advanced, ranging from entrenched mendacity by US- and corporate- subverted media to cognitive dissonance in the face of a worsening climate emergency. However I am confident in predicting that if governments do not take action on the world’s massive Carbon Debt then intergenerational justice action by the utterly betrayed and robbed young people of the world will make the present Extinction Rebellion climate demonstrations in London look like a proverbial Teddy Bear’s Picnic. A young people-led Climate Revolution (non-violent one hopes) is coming...

Up to one million species face extinction

According to a recent United Nations report⁶

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report warns of “an imminent rapid acceleration in the global rate of species extinction.”

The pace of loss “is already tens to hundreds of times higher than it has been, on average, over the last 10 million years,” it notes.

“Half-a-million to a million species are projected to be threatened with extinction, many within decades.”

⁶<https://news.yahoo.com/one-million-species-risk-extinction-due-humans-draft-131407174.html>

Refugees from climate change

The United Nations High Commission on Refugees

In an article on *Climate Change and Disasters* the United Nations High Commission on Refugees makes the following statement:

“The Earth’s climate is changing at a rate that has exceeded most scientific forecasts. Some families and communities have already started to suffer from disasters and the consequences of climate change, forced to leave their homes in search of a new beginning.

“For UNHCR, the consequences of climate change are enormous. Scarce natural resources such as drinking water are likely to become even more limited. Many crops and some livestock are unlikely to survive in certain locations if conditions become too hot and dry, or too cold and wet. Food security, already a concern, will become even more challenging.

“People try to adapt to this situation, but for many this will mean a conscious move to another place to survive. Such moves, or the effects of climate change on natural resources, may spark conflict with other communities, as an increasing number of people compete for a decreasing amount of resources.

“Since 2009, an estimated one person every second has been displaced by a disaster, with an average of 22.5 million people displaced by climate- or weather-related events since 2008 (IDMC 2015). Disasters and slow onsets, such as droughts in Somalia in 2011 and 2012, floods in Pakistan between 2010 and 2012, and the earthquake in Nepal in 2015, can leave huge numbers of people traumatized without shelter, clean water and basic supplies.”

Populations displaced by sea level rise

In a recent article⁷ discussed the long-term effects of sea level rise and the massive refugee crisis that it might create. By 2060, about 1.4 billion people could be climate change refugees, according to the paper, and that number could reach 2 billion by 2100.

The lead author, Prof. Emeritus Charles Geisler of Cornell University says: “The colliding forces of human fertility, submerging coastal zones, residential retreat, and impediments to inland resettlement is a huge problem. We offer preliminary estimates of the lands unlikely to support new waves of climate refugees due to the residues of war, exhausted natural resources, declining net primary productivity, desertification, urban sprawl, land concentration, ‘paving the planet’ with roads and greenhouse gas storage zones offsetting permafrost melt.”

We should notice that Prof. Geisler’s estimate of 2 billion climate refugees by 2100 includes all causes, not merely sea level rise. However, the number of refugees from sea level rise alone will be very large, since all the world’s coastal cities, and many river deltas will be at risk.

⁷Geisler C. et al., *Impediments to inland resettlement under conditions of accelerated sea level rise*, Land Use Policy, Vol 55, July 2017, Pages 322-330

Populations displaced by drought and famine

Climate change could produce a refugee crisis that is "unprecedented in human history", Barack Obama has warned as he stressed global warming was the most pressing issue of the age.

Speaking at an international food conference in Milan, the former US President said rising temperatures were already making it more difficult to grow crops and rising food prices were "leading to political instability".

If world leaders put aside "parochial interests" and took action to reduce greenhouse gas emissions by enough to restrict the rise to one or two degrees Celsius, then humanity would probably be able to cope.

Failing to do this, Mr Obama warned, increased the risk of "catastrophic" effects in the future, "not only real threats to food security, but also increases in conflict as a consequence of scarcity and greater refugee and migration patterns".

"If you think about monsoon patterns in the Indian subcontinent, maybe half a billion people rely on traditional rain patterns in those areas,"

Populations displaced by rising temperatures

A new study published in *Nature: Climate Change* has warned that up to 75% of the world's population could face deadly heat waves by 2100 unless greenhouse gas emissions are rapidly controlled.⁸ The following is an excerpt from the article:

"Here we conducted a global analysis of documented lethal heat events to identify the climatic conditions associated with human death and then quantified the current and projected occurrence of such deadly climatic conditions worldwide. We reviewed papers published between 1980 and 2014, and found 783 cases of excess human mortality associated with heat from 164 cities in 36 countries.

"Based on the climatic conditions of those lethal heat events, we identified a global threshold beyond which daily mean surface air temperature and relative humidity become deadly. Around 30% of the world's population is currently exposed to climatic conditions exceeding this deadly threshold for at least 20 days a year.

"By 2100, this percentage is projected to increase to 48% under a scenario with drastic reductions of greenhouse gas emissions and 74% under a scenario of growing emissions. An increasing threat to human life from excess heat now seems almost inevitable, but will be greatly aggravated if greenhouse gases are not considerably reduced."⁹

⁸Mora, C. et al., *Global risk of deadly heat*, *Nature: Climate Change*, 19 June 2017

⁹See also <https://phys.org/news/2017-08-deadly-south-asia-century.html> and <https://cleantechnica.com/2017/09/28/extreme-heatwaves-like-recent-lucifer-heatwave-become-normal-europe-2050s/>

Populations displaced by war

A recent article in *The Guardian*¹⁰ discusses the relationship between climate change and war, Here are some excerpts from the article:

“Climate change is set to cause a refugee crisis of ‘unimaginable scale’, according to senior military figures, who warn that global warming is the greatest security threat of the 21st century and that mass migration will become the ‘new normal’.

“The generals said the impacts of climate change were already factors in the conflicts driving a current crisis of migration into Europe, having been linked to the Arab Spring, the war in Syria and the Boko Haram terrorist insurgency.

“Military leaders have long warned that global warming could multiply and accelerate security threats around the world by provoking conflicts and migration. They are now warning that immediate action is required.

“Climate change is the greatest security threat of the 21st century,’ said Maj Gen Muniruzzaman.

“Muniruzzaman, chairman of the Global Military Advisory Council on climate change and a former military adviser to the president of Bangladesh. He said one meter of sea level rise will flood 20% of his nation. ‘We’re going to see refugee problems on an unimaginable scale, potentially above 30 million people.’

“Previously, Bangladesh’s finance minister, Abul Maal Abdul Muhith, called on Britain and other wealthy countries to accept millions of displaced people.

“Brig Gen Stephen Cheney, a member of the US Department of State’s foreign affairs policy board and CEO of the American Security Project, said: ‘Climate change could lead to a humanitarian crisis of epic proportions. We’re already seeing migration of large numbers of people around the world because of food scarcity, water insecurity and extreme weather, and this is set to become the new normal’.

Political reactions to migration

Brexit

Across the developed world, the reaction to threatened migration of refugees from climate change has been less than generous, to say the least. The recent decision of Britain to leave the European Union was motivated largely by the fear of British workers that EU laws would force their country to accept large numbers of refugees.

Swings to the right in Europe

In Germany, Angela Merkel’s generous policies towards refugees have cost her votes, while an openly racist party, the Alternative for Germany (AfD) party, has gained in strength. Frauke Petry, 40, the party’s leader, has said border guards might need to turn guns on

¹⁰Thursday, 1 December, 2016

anyone crossing a frontier illegally. The party's policy platform says "Islam does not belong in Germany" and calls for a ban on the construction of mosques.

In September, 2017, eight people from the neo-Nazi Freital Group were put on trial in Dresden for bomb attacks on homes for asylum applicants. Hundreds of similar assaults occur in Germany every year, but they had never before been tried as terrorism in a federal court.

In the German election, which took place on Sunday, October 1, 2017, Angela Merkel won a fourth term as Chancellor, but her party won only 33% of the votes, a percentage much reduced from the 41% won in the election of 2013. Angela Merkel was paying a high price for her refugee-friendly policies.

Meanwhile the far right anti-immigration AfD party made a historic breakthrough, winning 13.5% of the vote, thus becoming the first overtly nationalist party to sit in the Bundestag in 60 years. The Greens have already complained that "Nazis have returned to parliament". In fact, members of the AfD party have begun to say that Germans should stop being ashamed of their country's Nazi past.

In France, the National Front is a nationalist party that uses populist rhetoric to promote its anti-immigration and anti-European Union positions. The party favors protectionist economic policies and would clamp down on government benefits for immigrants.

Similarly, in the Netherlands, the anti-European Union, anti-Islam Party for Freedom has called for closing all Islamic schools and recording the ethnicity of all Dutch citizens. In early November, the party was leading in polls ahead of next year's parliamentary elections.

Other far-right anti-immigrant parties in Europe include Golden Dawn (Greece), Jobbic (Hungary), Sweden Democrats (Sweden), Freedom Party (Austria), and People's Party - Our Slovakia (Slovakia). All of these parties have gained in strength because of the widespread fear of immigration.

Populism in the United States

The election of Donald Trump, who ran for President in 2016 on an openly racist and anti-immigrant platform, can also be seen as the result of fear of immigration, especially on the part of industrial workers.

A more humane response to the refugee crisis

In the long-term future, climate change will make the refugee crisis much more severe. Heat and drought will make large regions of the world uninhabitable, and will threaten many populations with famine. The severity of the refugee crisis will depend on how quickly we reduce greenhouse gas emissions.

While making many parts of the world uninhabitable, long-term climate change will make other regions more suitable for human habitation and agriculture. For example, farming will become more possible in Siberia, Greenland, the Canadian Arctic, Alaska and

Patagonia. A humane response to the refugee crisis could include the generous opening of these regions to refugees.

The global population of humans is currently increasing by almost a billion people every decade. Global population must be stabilized, and in the long run, gradually reduced. Money currently wasted (or worse than wasted) on armaments could be used instead to promote universal primary health care, and with it, universal access to the knowledge and materials needed for family planning.

Finally, reduced consumption of meat, particularly beef, would shorten the food chain thus make more food available for famine relief.

12.4 Social systems in Scandinavia

The Green New Deal can simultaneously address the climate crisis and the problem of excessive economic inequality. In this context, it is interesting to look at the social and economic systems of the Scandinavian countries, Norway, Sweden, Finland, Denmark and Iceland. In these countries the contrast between the rich and poor has been very much reduced. It is almost true to say that poverty has been eliminated in these countries. At the same time, the Scandinavians have strong policies to address the climate emergency. Thus Scandinavian successes are a counter-argument to those who say that the Green New Deal cannot be put into practice.¹¹

The Danish system today

In 2017, Denmark ranked 2nd in the world (after Norway) in the World Happiness Report. In a number of other years, Denmark has ranked 1st. In compiling the report, researchers ask people in a given country whether they are happy, and record how many say “yes”. Interestingly, in Denmark, women are the most happy of all. It is therefore relevant to look at the Danish social and political system of today, and to examine the reasons why women are so satisfied with it.

Denmark has very high taxes, but in return for these, its citizens receive many social services, such as free health care. If they qualify for university education, the tuition is free, and students are given an allowance for their living expenses. Mothers or alternatively fathers, can take paid leave of up to 52 weeks after the birth of a child. After that, a *vuggestue* (cresch) is always available, so that mothers can return to their jobs. When the child become too old for the cresch, day care centers are always available. For children of school age, after-school clubs are available where children can practice arts and crafts or other activities under supervision until their parents come home from work.

It is illegal in Denmark to fire a woman because she has become pregnant, or to deny her work because the employer fears that she may become pregnant. Thus, Danish women grow up expecting to find jobs outside the home. Danish women are happy to have careers, but it is also a necessity, because with taxes so high that a single income is not enough

¹¹But, of course, it cannot be put into practice while maintaining an economic oligarchy.

to give a family the desired standard of living. Husbands are grateful to their wives for helping to support the family. In the case of single mothers, support is given by the state.

The number of births per woman-life reached a low of 1.38 in 1983, but since that time the number has gradually risen gradually and in 2017 the fertility rate was 1.77, still less than the replacement level. The other Scandinavian countries have very similar systems, and they all have high human development indices, as well as a high degree of economic equality. When US Senator Bernie Sanders declared that he is a socialist, he made the statement more precise by saying that he is in favor of the Scandinavian social and political system.

Renewable energy in Denmark

Here are some excerpts from a recent report by the Danish Ministry of Energy, Utilities and Climate:¹²

Denmark's success in transforming into a sustainable, green society is widely recognized. Denmark is at the forefront of numerous international initiatives and collaborative endeavors. In 2017, for the second consecutive year in a row, Denmark won the World Energy Council award for the world's best energy system.

Denmark's energy and climate policy was also high lighted in 2017 by the International Energy Agency (IEA), as an international model because the country produces wind turbines, provides record low energy prices and good electricity connections to neighboring countries.

In 2017, Denmark achieved a world record of 43.4% power produced solely by wind turbines.

Denmark can cover the largest share of its electricity production with green power from wind turbines.

Denmark is also a European leader in the export of energy technology, as exports of energy equipment account for a larger share of total exports than in any other EU country.

The government has set ambitious goals that few other countries can match:

- **At least 50% of Denmark's energy needs must be covered by renewable energy by 2030.**
- **Coal must be completely phased out of the power supply by 2030.**
- **Moratorium on all exploration and drilling activities for oil, gas and shale gas on land and inland waters of Denmark.**
- **Denmark must be a low-emission society independent of fossil fuels in 2050.**

¹²Denmark: Energy and climate pioneer. Status of the green transition



Figure 12.13: Senator Bernie Sanders, the popular candidate for the US Presidency in 2016 and 2020, says that he is a socialist. When asked to explain this in detail, Senator Sanders said that he believes that the United States would benefit from a social system similar to the systems in present-day Scandinavia.



Figure 12.14: A day-care center in Sweden. In the Scandinavian countries, most women work, and state-provided day-care centers for pre-school children make this possible.

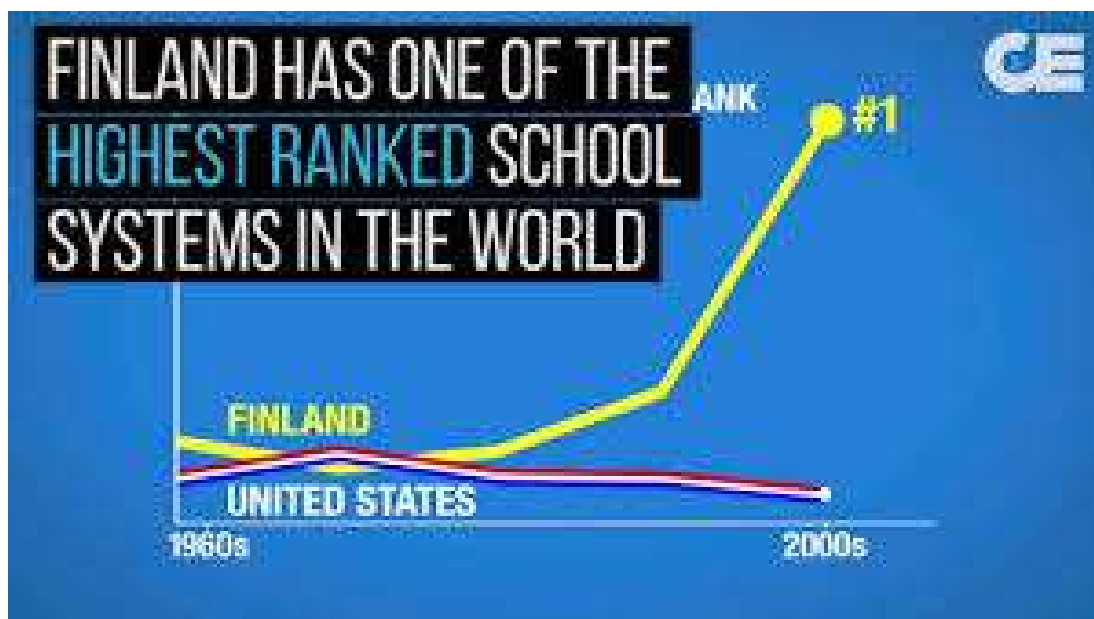


Figure 12.15: Finland has the best school system in the world. One reason for this is that the teachers are very highly selected and highly paid. Another reason is that the children are given frequent short rest periods, during which they may go outdoors and breath fresh air. They return from these small breaks with improved concentration.



Figure 12.16: The long-serving Danish Prime Minister Thorvald Stauning (1873-1942). He was the architect of the Danish social and economic system, which combines a free-market economy with such social benefits as universal free health care, state-provided day-care centers and free higher education. Thanks to Stauning's initiatives, those who qualify for college or university in Denmark are not only given free tuition, but also a stipend to support their living expenses. A high progressive income tax in Denmark pays for these benefits and reduces economic inequality. Stauning forged a coalition that united both labor and employers behind his reforms.

12.5 Roosevelt saves his nation and the world

Born into a very wealthy Dutch-American family Franklin Delano Roosevelt (1882-1945) attended Groton School, Harvard College and Columbia Law School. After practicing law in New York, he was elected to the NY State Senate. During World War I, he served as Assistant Secretary of the Navy. In 1920 he was the Democratic Party's Candidate for US Vice President, but he and James G. Cox were defeated by Warren Harding's ticket.

In 1921, FDR contracted polio and lost the use of his legs. His mother urged him to leave politics and return to the family estate at Hyde Park, but he vigorously resisted this suggestion and struggled to continue despite his handicap. In 1928, Roosevelt was elected Governor of New York. As Governor, he instituted many reforms to combat the economic problems that had followed the 1929 Black Friday stock market crash.

After winning a second term as Governor of New York State in 1930, FDR became the front-running candidate for the US Presidency in 1932. In accepting the Democratic Party nomination at the Chicago convention, he said: "I pledge you, I pledge myself to a new deal for the American people... This is more than a political campaign. It is a call to arms."

Here are some excerpts from FDR's First Inaugural Address, Saturday, March 4th, 1933:

I am certain that my fellow Americans expect that on my induction into the Presidency I will address them with a candor and a decision which the present situation of our Nation impels. This is preeminently the time to speak the truth, the whole truth, frankly and boldly. Nor need we shrink from honestly facing conditions in our country today. This great Nation will endure as it has endured, will revive and will prosper. So, first of all, let me assert my firm belief that the only thing we have to fear is fear itself - nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance. In every dark hour of our national life a leadership of frankness and vigor has met with that understanding and support of the people themselves which is essential to victory. I am convinced that you will again give that support to leadership in these critical days.

In such a spirit on my part and on yours we face our common difficulties. They concern, thank God, only material things. Values have shrunk to fantastic levels; taxes have risen; our ability to pay has fallen; government of all kinds is faced by serious curtailment of income; the means of exchange are frozen in the currents of trade; the withered leaves of industrial enterprise lie on every side; farmers find no markets for their produce; the savings of many years in thousands of families are gone.

More important, a host of unemployed citizens face the grim problem of existence, and an equally great number toil with little return. Only a foolish optimist can deny the dark realities of the moment. ..

Recognition of the falsity of material wealth as the standard of success goes

hand in hand with the abandonment of the false belief that public office and high political position are to be valued only by the standards of pride of place and personal profit; and there must be an end to a conduct in banking and in business which too often has given to a sacred trust the likeness of callous and selfish wrongdoing. Small wonder that confidence languishes, for it thrives only on honesty, on honor, on the sacredness of obligations, on faithful protection, on unselfish performance; without them it cannot live.

Restoration calls, however, not for changes in ethics alone. This Nation asks for action, and action now.

Our greatest primary task is to put people to work. This is no unsolvable problem if we face it wisely and courageously. It can be accomplished in part by direct recruiting by the Government itself, treating the task as we would treat the emergency of a war, but at the same time, through this employment, accomplishing greatly needed projects to stimulate and reorganize the use of our natural resources.

Hand in hand with this we must frankly recognize the overbalance of population in our industrial centers and, by engaging on a national scale in a redistribution, endeavor to provide a better use of the land for those best fitted for the land. The task can be helped by definite efforts to raise the values of agricultural products and with this the power to purchase the output of our cities. It can be helped by preventing realistically the tragedy of the growing loss through foreclosure of our small homes and our farms. It can be helped by insistence that the Federal, State, and local governments act forthwith on the demand that their cost be drastically reduced. It can be helped by the unifying of relief activities which today are often scattered, uneconomical, and unequal. It can be helped by national planning for and supervision of all forms of transportation and of communications and other utilities which have a definitely public character. There are many ways in which it can be helped, but it can never be helped merely by talking about it. We must act and act quickly.

Roosevelt's New Deal programs aimed at "the three R's": **relief** of the poor, **reform** of financial institutions, and **recovery** of confidence. New Deal programs aimed at employing people on infrastructure projects that included the following:

- The Civilian Conservation Corps
- The Civil Works Administration
- The Farm Security Administration
- The National Industrial Recovery Act of 1933
- The Social Security Administration
- The Works Progress Administration of 1937 (WPA)

Wikipedia states that "The WPA financed a variety of projects such as hospitals, schools and roads, and employed more than 8.5 million workers who built 650,000 miles of highways and roads, 125,000 public buildings as well as bridges, reservoirs, irrigation systems, parks, playgrounds and so on."



Figure 12.17: Franklin Delano Roosevelt (FDR) in 1933. Wikipedia says of him: “Roosevelt is widely considered to be one of the most important figures in American history, as well as among the most influential figures of the 20th century. Though he has been subject to substantial criticism, he is generally rated by scholars as one of the three greatest U.S. presidents, along with George Washington and Abraham Lincoln.”



Figure 12.18: Eleanor and Franklin with two of their children in 1908. Eleanor was called Roosevelt even before her marriage. She was the niece of US President Theodore Roosevelt, a distant cousin of Franklin. She is remembered as an outstanding advocate of racial equality, journalistic freedom and human rights.



Figure 12.19: A photograph of FDR with his dog Fala and Ruthie Bie, the daughter of caretakers at his Hyde Park estate. Roosevelt was careful never to be seen using his wheelchair in public. Although disabled, he managed to give a public impression of buoyant energy and confidence. One of his slogans, which he used to end the depression, was “The only thing that we have to fear is fear itself!”

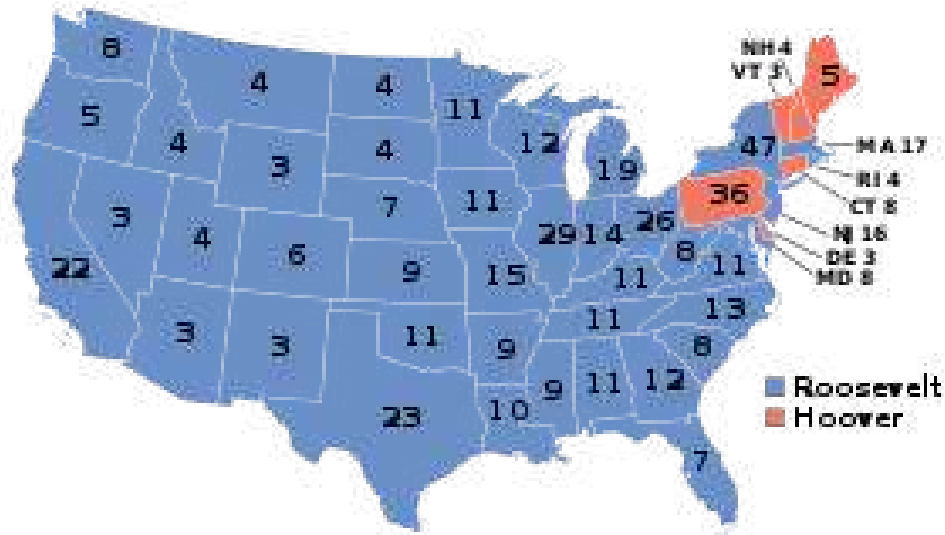


Figure 12.20: The 1932 electoral vote. Roosevelt also won landslide victories in 1936, 1940 and 1944. FDR died in office, shortly before the end of World War II. His administration's support for England during the the dark hours of the Battle of Britain had prevented Hitler's forces from invading the UK. In 1945, Eleanor Roosevelt helped to carry through FDR's plans for setting up the United Nations, and she was one of the two main drafters of the Universal Declaration of Human Rights.



Figure 12.21: A photo of Eleanor Roosevelt with Charles Malik and their grandchildren. Malik and Eleanor Roosevelt worked together to draft the Universal Declaration of Human Rights.



Figure 12.22: Pete Seeger entertaining Eleanor Roosevelt (center), honored guest at a racially integrated Valentine's Day party marking the opening of a Canteen of the United Federal Labor, CIO, in then-segregated Washington, D.C., 1944.

Roosevelt's New Deal serves a model for a Green New Deal that can save human civilization and the biosphere from catastrophic climate change, an emergency even more severe than those faced by Roosevelt. We can afford the Green New Deal. What we cannot afford is inaction.

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Chapter 13

THE NEED FOR HUMAN SOLIDARITY

“Man lives in a new cosmic world for which he was not made. His survival depends on how well and how fast he can adapt himself to it, rebuilding all his ideas, all his social and political institutions. ...Modern science has abolished time and distance as factors separating nations. On our shrunken globe today, there is room for one group only - the family of man.”

Albert Szent-Györgyi

“There lies before us, if we choose, continual progress in happiness, knowledge, and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels? We appeal as human beings to human beings: Remember your humanity, and forget the rest. ”

Bertrand Russell and Albert Einstein

13.1 Why is human solidarity needed so urgently?

Today the world is faced by three extremely serious dangers. We cannot be at all sure that we will get through the 21st century without a catastrophe. The three greatest threats will be discussed in more detail below, but briefly they are as follows:

- The threat of an all-destroying thermonuclear war
- The threat of catastrophic climate change
- The threat of a global famine leading to as many as a billion human deaths

In order to avert these threats and to pass safely through the next short period of history, we urgently need human solidarity.

The ideas of Social Darwinism and the Eugenics Movement undermine human solidarity. This is not the moment for genetic improvement of the human race! Genetic evolution proceeds extremely slowly, but today technological and political change are moving with blinding speed - constantly accelerating speed. So fast, indeed, is the speed of change, that it threatens to shake human civilization to pieces.

For the sake of survival in a desperately precarious time, we can afford to allow humans to lose a percentage or two of their IQ's or to become very slightly less athletic, if that is the consequence of failing to breed humans as though they were farm animals. In any case, the horrors committed by the Nazi's during World War II in the name of "improving the race" should serve as a warning.

The rapid growth of knowledge

Cultural evolution depends on the non-genetic storage, transmission, diffusion and utilization of information. The development of human speech, the invention of writing, the development of paper and printing, and finally, in modern times, mass media, computers and the Internet: all these have been crucial steps in society's explosive accumulation of information and knowledge. Human cultural evolution proceeds at a constantly-accelerating speed, so great in fact that it threatens to shake society to pieces.

In many respects, our cultural evolution can be regarded as an enormous success. However, at the start of the 21st century, most thoughtful observers agree that civilization is entering a period of crisis. As all curves move exponentially upward, population, production, consumption, rates of scientific discovery, and so on, one can observe signs of increasing environmental stress, while the continued existence and spread of nuclear weapons threaten civilization with destruction. Thus, while the explosive growth of knowledge has brought many benefits, the problem of achieving a stable, peaceful and sustainable world remains serious, challenging and unsolved.

The threat of nuclear war

Today, because of the possibility that U.S. President Donald Trump will initiate a nuclear war against Iran or North Korea, or even Russia, the issue of nuclear weapons is at the

center of the global stage. I strongly believe that the time has come for all countries to take a united stance on this issue. Most of the world's nations live in nuclear weapon free zones. This does not give them any real protection, since the catastrophic environmental effects of nuclear war would be global, not sparing any nation. However, by supporting the Nuclear Weapons Convention and by becoming members of NWFZ's, nations can state that they consider nuclear weapons to be morally unacceptable, a view that must soon become worldwide if human civilization is to survive.

We must take a stand, and state clearly that nuclear weapons are an absolute evil; that their possession does not increase anyone's security; that their continued existence is a threat to the life of every person on the planet; and that these genocidal and potentially omniscidal weapons have no place in a civilized society.

Nuclear warfare as genocide

On December 9, 1948, the United Nations General Assembly adopted a convention prohibiting genocide. It seems appropriate to discuss nuclear warfare against the background of this important standard of international law.

Cannot nuclear warfare be seen as an example of genocide? It is capable of killing entire populations, including babies, young children, adults in their prime and old people, without any regard for guilt or innocence. The retention of nuclear weapons, with the intent to use them under some circumstances, must be seen as the intent to commit genocide. Is it not morally degrading to see our leaders announce their intention to commit the "crime of crimes" in our names?

The use of nuclear weapons potentially involves not only genocide, but also omniscide, the death of all, since a large-scale thermonuclear war would destroy human civilization and much of the biosphere.

If humanity is to survive, we must develop an advanced ethic to match our advanced technology. We must regard all humans as our brothers and sisters, More than that, we must actively feel our kinship with all living things, and accept and act upon our duty to protect both animate and inanimate nature.

Science is double-edged

Modern science has, for the first time in history, offered humankind the possibility of a life of comfort, free from hunger and cold, and free from the constant threat of death through infectious disease. At the same time, science has given humans the power to obliterate their civilization with nuclear weapons, or to make the earth uninhabitable through overpopulation and pollution. The question of which of these paths we choose is literally a matter of life or death for ourselves and our children.

Will we use the discoveries of modern science constructively, and thus choose the path leading towards life? Or will we use science to produce more and more lethal weapons, which sooner or later, through a technical or human failure, may result in a catastrophic nuclear war? Will we thoughtlessly destroy our beautiful planet through unlimited growth

of population and industry? The choice among these alternatives is ours to make. We live at a critical moment of history - a moment of crisis for civilization.

No one living today asked to be born at such a moment, But history has given our generation an enormous responsibility, and two daunting tasks: We must abolish nuclear weapons and we must abolish institution of war.

The continuity of life is sacred

In 1985, International Physicians for the Prevention of Nuclear War received the Nobel Peace Prize. IPPNW had been founded in 1980 by six physicians, three from the Soviet Union and three from the United States. Today, the organization has wide membership among the world's physicians. Professor Bernard Lowen of the Harvard School of Public Health, one of the founders of IPPNW, said in a recent speech:

“...No public health hazard ever faced by humankind equals the threat of nuclear war. Never before has man possessed the destructive resources to make this planet uninhabitable... Modern medicine has nothing to offer, not even a token benefit, in the event of nuclear war...”

“We are but transient passengers on this planet Earth. It does not belong to us. We are not free to doom generations yet unborn. We are not at liberty to erase humanity's past or dim its future. Social systems do not endure for eternity. Only life can lay claim to uninterrupted continuity. This continuity is sacred.”

Mr. Javier Pérez de Cuéllar , former Secretary-General of the United Nations, emphasized the same point in one of his speeches: “I feel”, he said, “that the question may justifiably be put to the leading nuclear powers: by what right do they decide the fate of humanity? From Scandinavia to Latin America, from Europe and Africa to the Far East, the destiny of every man and woman is affected by their actions. No one can expect to escape from the catastrophic consequences of a nuclear war on the fragile structure of this planet. ...”

“No ideological confrontation can be allowed to jeopardize the future of humanity. Nothing less is at stake: today's decisions affect not only the present; they also put at risk succeeding generations. Like supreme arbiters, with our disputes of the moment, we threaten to cut off the future and to extinguish the lives of innocent millions yet unborn. There can be no greater arrogance. At the same time, the lives of all those who lived before us may be rendered meaningless; for we have the power to dissolve in a conflict of hours or minutes the entire work of civilization, with all the brilliant cultural heritage of humankind.

“...In a nuclear age, decisions affecting war and peace cannot be left to military strategists or even to governments. They are indeed the responsibility of every man and woman. And it is therefore the responsibility of all of us... to break the cycle of mistrust and insecurity and to respond to humanity's yearning for peace.”

Nuclear war is uniquely dangerous

As bad as conventional arms and conventional weapons may be, it is the possibility of a catastrophic nuclear war that poses the greatest threat to humanity. There are today roughly 16,000 nuclear warheads in the world. The total explosive power of the warheads that exist or that could be made on short notice is approximately equal to 500,000 Hiroshima bombs.

To multiply the tragedy of Hiroshima by a factor of half a million makes an enormous difference, not only quantitatively, but also qualitatively. Those who have studied the question believe that a nuclear catastrophe today would inflict irreversible damage on our civilization, genetic pool and environment.

Thermonuclear weapons consist of an inner core where the fission of uranium-235 or plutonium takes place. The fission reaction in the core is able to start a fusion reaction in the next layer, which contains isotopes of hydrogen. It is possible to add a casing of ordinary uranium outside the hydrogen layer, and under the extreme conditions produced by the fusion reaction, this ordinary uranium can undergo fission. In this way, a fission-fusion-fission bomb of almost limitless power can be produced.

The danger of a catastrophic nuclear war casts a dark shadow over the future of our species. It also casts a very black shadow over the future of the global environment. The environmental consequences of a massive exchange of nuclear weapons have been treated in a number of studies by meteorologists and other experts from both East and West. They predict that a large-scale use of nuclear weapons would result in fire storms with very high winds and high temperatures, which would burn a large proportion of the wild land fuels in the affected nations. The resulting smoke and dust would block out sunlight for a period of many months, at first only in the northern hemisphere but later also in the southern hemisphere.

Temperatures in many places would fall far below freezing, and much of the earth's plant life would be killed. Animals and humans would then die of starvation. The nuclear winter effect was first discovered as a result of the Mariner 9 spacecraft exploration of Mars in 1971. The spacecraft arrived in the middle of an enormous dust-storm on Mars, and measured a large temperature drop at the surface of the planet, accompanied by a heating of the upper atmosphere. These measurements allowed scientists to check their theoretical models for predicting the effect of dust and other pollutants distributed in planetary atmospheres.

Flaws in the concept of nuclear deterrence

A number of prominent political and military figures (many of whom have ample knowledge of the system of deterrence, having been part of it) have expressed concern about the danger of accidental nuclear war. Colin S. Gray, Chairman, National Institute for Public Policy, expressed this concern as follows: "The problem, indeed the enduring problem, is that we are resting our future upon a nuclear deterrence system concerning which we cannot tolerate even a single malfunction". General Curtis E. LeMay, Founder and former

Commander in Chief of the United States Strategic Air Command, has written, "In my opinion a general war will grow through a series of political miscalculations and accidents rather than through any deliberate attack by either side". Bruce G. Blair (Brookings Institute) has remarked that "It is obvious that the rushed nature of the process, from warning to decision to action, risks causing a catastrophic mistake... This system is an accident waiting to happen."

Fred Ikle of the Rand Corporation has written, "Given the huge and far-flung missile forces, ready to be launched from land and sea on both sides, the scope for disaster by accident is immense... In a matter of seconds - through technical accident or human failure - mutual deterrence might thus collapse."

Another serious failure of the concept of nuclear deterrence is that it does not take into account the possibility that atomic bombs may be used by terrorists. Indeed, the threat of nuclear terrorism has today become one of the most pressing dangers that the world faces, a danger that is particularly acute in the United States.

Since 1945, more than 3,000 metric tons (3,000,000 kilograms) of highly enriched uranium and plutonium have been produced - enough for several hundred thousand nuclear weapons. Of this, roughly a million kilograms are in Russia, inadequately guarded, in establishments where the technicians are poorly paid and vulnerable to the temptations of bribery. There is a continuing danger that these fissile materials will fall into the hands of terrorists, or organized criminals, or irresponsible governments. Also, an extensive black market for fissile materials, nuclear weapons components etc. has recently been revealed in connection with the confessions of Pakistan's bomb-maker, Dr. A.Q. Khan. Furthermore, if Pakistan's less-than-stable government should be overthrown, complete nuclear weapons could fall into the hands of terrorists.

Finally, the doctrine of nuclear deterrence rests on the assumption that political leaders have sound judgement. But what if the leaders are not entirely sane? We must ask this question in the context of the present conflict between the United States and North Korea.

Nuclear weapons are criminal! Every war is a crime!

War was always madness, always immoral, always the cause of unspeakable suffering, economic waste and widespread destruction, and always a source of poverty, hate, barbarism and endless cycles of revenge and counter-revenge. It has always been a crime for soldiers to kill people, just as it is a crime for murderers in civil society to kill people. No flag has ever been wide enough to cover up atrocities.

But today, the development of all-destroying modern weapons has put war completely beyond the bounds of sanity and elementary humanity.

Today, war is not only insane, but also a violation of international law. Both the United Nations Charter and the Nuremberg Principles make it a crime to launch an aggressive war. According to the Nuremberg Principles, every soldier is responsible for the crimes that he or she commits, even while acting under the orders of a superior officer.

Nuclear weapons are not only insane, immoral and potentially omnicidal, but also criminal under international law. In response to questions put to it by WHO and the UN

General Assembly, the International Court of Justice ruled in 1996 that “the threat and use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and particularly the principles and rules of humanitarian law.” The only possible exception to this general rule might be “an extreme circumstance of self-defense, in which the very survival of a state would be at stake”. But the Court refused to say that even in this extreme circumstance the threat or use of nuclear weapons would be legal. It left the exceptional case undecided. In addition, the Court added unanimously that “there exists an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.”

Can we not rid ourselves of both nuclear weapons and the institution of war itself? We must act quickly and resolutely before everything that we love in our beautiful world is reduced to radioactive ashes.

The threat of catastrophic climate change

Quick change is needed to save the long-term future.

The central problem which the world faces in its attempts to avoid catastrophic climate change is a contrast of time scales. In order to save human civilization and the biosphere from the most catastrophic effects of climate change we need to act immediately, Fossil fuels must be left in the ground. Forests must be saved from destruction by beef or palm oil production.

These vitally necessary actions are opposed by powerful economic interests, by powerful fossil fuel corporations desperate to monetize their underground “assets”, and by corrupt politicians receiving money from the beef or palm oil industries.

However, although some disastrous effects climate change are already visible, the worst of these calamities lie in the distant future. Therefore it is difficult to mobilize the political will for quick action. We need to act immediately, because of the danger of passing tipping points beyond which climate change will become irreversible despite human efforts to control it.

Tipping points are associated with feedback loops, such as the albedo effect and the methane hydrate feedback loop. The albedo effect is important in connection with whether the sunlight falling on polar seas is reflected or absorbed. While ice remains, most of the sunlight is reflected, but as areas of sea surface become ice-free, more sunlight is absorbed, leading to rising temperatures and further melting of sea ice, and so on, in a loop.

The methane hydrate feedback loop involves vast quantities of the powerful greenhouse gas methane, CH_4 , frozen in a crystalline form surrounded by water molecules. 10,000 gigatons of methane hydrates are at present locked in Arctic tundra or the continental shelves of the world's oceans. Although oceans warm very slowly because of thermal inertia, the long-term dangers from the initiation of a methane-hydrate feedback loop are very great. There is a danger that a very large-scale anthropogenic extinction event could be initiated unless immediate steps are taken to drastically reduce the release of greenhouse gases.

Scientists have long been aware of the dangers

Scientists have long been aware that CO₂ and other greenhouse gases released into the earth's atmosphere through human activities can cause dangerous climate change. László Szombatfalvy's important book, "The Greatest Challenges of Our Time", (Ekerlids, 2010), gives the following history of our knowledge of the link between greenhouse gases and climate change:

"As far back as 100 years ago, Swedish scientists observed that human activities could affect the climate. Arvid Högbom, professor of geology in Stockholm, warned in 1895 that anthracite burning would increase carbon dioxide content in the air. The following year, Svante Arrhenius, professor of physics and Nobel Prize Laureate, estimated that doubling of the content of carbon dioxide in the atmosphere would lead to an increase of the earth's average temperature by 5-6 degrees C. However, with the low emissions at that time, the process would take several thousand years.

"In 1938, measurements by Guy S. Callendar, an English researcher, confirmed theories that the amount of carbon dioxide in the atmosphere had actually increased since the previous century. His report made little impact since attention at that time was focused on the outbreak of World War II.

"During the 1950s and 1960s, several research reports were published supporting Svante Arrhenius's calculation of carbon dioxide emissions' warming effects. But the time perspective in these reports has been reduced considerably.

"In the 1970s, it was discovered that emissions of several other greenhouse gases from human activities heightened carbon dioxide's effects.

"In 1988, the International Panel on Climate Control, IPCC, was organized. Every fourth or fifth year since 1990, the IPCC has published climate change reports that are increasingly more extensive and ominous.

"In December 1997, the first international agreement to limit emissions of greenhouse gases was signed in Japan. Known as the Kyoto Protocol, the agreement's goal is that industrialized nations reduce emissions of greenhouse gases by 5.2 percent by 2012, compared with 1990 levels. The Protocol has been hitherto ratified by 176 countries, but unfortunately not by the most important country in this matter: USA."

More recently, on December 12, 2015, the Paris Agreement was adopted by consensus by the 196 parties of the United Nations Framework Convention on Climate Change. As of June, 2017, 195 UNFCCC members have signed the Agreement, and 153 nations have ratified it.

The Paris Agreement aims at "Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change."

Unchanged life-styles are not an option. Business as usual is not an option. Inaction is not an option. Public education is needed. Votes for environmentally friendly politicians are needed. A carbon tax is needed. Subsidies to fossil fuel giants must stop. Extraction of fossil fuels must stop. Renewable energy infrastructure must quickly be constructed.

Renewable energy infrastructure represents an unprecedented investment opportunity, and new renewable energy jobs far outnumber those that will be lost in the fossil fuel sector.

There is reason for optimism because of the economic tipping point mentioned in Chapter 1. Renewables are now cheaper than fossil fuels. With the help of renewable-friendly governmental policies, the transition that we so urgently need can be driven by economic forces alone.

We give loving care to our children and grandchildren, but it makes no sense to do so unless we leave them a world in which they and all future generations will be able to survive.

The threat of a large-scale global famine by the middle of the 21st century

Unless efforts are made to stabilize and ultimately reduce global population, there is a serious threat that climate change, population growth, and the end of the fossil fuel era could combine to produce a large-scale famine by the middle of the 21st century.

As glaciers melt in the Himalayas and the Andes, depriving India, China and South America of summer water supplies; as sea levels rise, drowning fertile rice-growing regions of Southeast Asia; as droughts reduce the food production of North America and Southern Europe; as groundwater levels fall in China, India, the Middle East and the United States; and as high-yield modern agriculture becomes less possible because fossil fuel inputs are lacking, the 800 million people who are currently undernourished may not survive at all.

Energy inputs of agriculture

Modern agriculture has become highly dependent on fossil fuels, especially on petroleum and natural gas. This is especially true of production of the high-yield grain varieties introduced in the Green Revolution, since these require especially large inputs of fertilizers, pesticides and irrigation. Today, fertilizers are produced using oil and natural gas, while pesticides are synthesized from petroleum feedstocks, and irrigation is driven by fossil fuel energy. Thus agriculture in the developed countries has become a process where inputs of fossil fuel energy are converted into food calories.

Predictions of drought in the Stern Review

According to a report presented to the Oxford Institute of Economic Policy by Sir Nicholas Stern on 31 January, 2006, areas likely to lose up to 30% of their rainfall by the 2050's because of climate change include much of the United States, Brazil, the Mediterranean region, Eastern Russia and Belarus, the Middle East, Southern Africa and Southern Australia. Meanwhile rainfall is predicted to increase up to 30% in Central Africa, Pakistan, India, Bangladesh, Siberia, and much of China.

Stern and his team point out that “We can... expect to see changes in the Indian monsoon, which could have a huge impact on the lives of hundreds of millions of people in India, Pakistan and Bangladesh. Most climate models suggest that the monsoon will change, although there is still uncertainty about exactly how. Nevertheless, small changes in the monsoon could have a huge impact. Today, a fluctuation of just 10% in either direction from average monsoon rainfall is known to cause either severe flooding or drought. A weak summer monsoon, for example, can lead to poor harvests and food shortages among the rural population - two-thirds of India’s almost 1.1 billion people. Heavier-than-usual monsoon downpours can also have devastating consequences...”

In some regions, melting of glaciers can be serious from the standpoint of dry-season water supplies. For example, melts from glaciers in the Hindu Kush and the Himalayas now supply much of Asia, including China and India, with a dry-season water supply. Complete melting of these glacial systems would cause an exaggerated runoff for a few decades, after which there would be a drying out of some of the most densely populated regions of the world.

Ocean current changes and failure of monsoons

It is expected that climate change will affect ocean currents, and hence also affect monsoon rainfall. We are already experiencing a diversion of the Gulf Stream due to southward currents of cold water from melting ice in the Arctic. This has caused what is known as the *North Atlantic Anomaly*. While most regions of the world are experiencing rising temperatures, the North Atlantic and several northern European countries are exceptions to this rule, and have cooled. Complete failure of the Gulf Stream would lead to much colder temperatures in Europe.

Changes in ocean currents have already lead to the failure of the West African Monsoon, and this has already produced severe food insecurity in West Africa.

In the future, climate-changed ocean currents may lead to failures of monsoons in South-east Asia, and thus damage the food supply of almost two billion people.

Falling water tables around the world

Under many desert areas of the world are deeply buried water tables formed during glacial periods when the climate of these regions was wetter. These regions include the Middle East and large parts of Africa. Water can be withdrawn from such ancient reservoirs by deep wells and pumping, but only for a limited amount of time.

In oil-rich Saudi Arabia, petroenergy is used to drill wells for ancient water and to bring it to the surface. Much of this water is used to irrigate wheat fields, and this is done to such an extent that Saudi Arabia exports wheat. The country is, in effect, exporting its ancient heritage of water, a policy that it may, in time, regret. A similarly short-sighted project is Muammar Qaddafi’s enormous pipeline, which will bring water from ancient sub-desert reservoirs to coastal cities.

In the United States, the great Ogallala aquifer is being overdrawn. This aquifer is an enormous stratum of water-saturated sand and gravel under-lying parts of northern Texas, Oklahoma, New Mexico, Kansas, Colorado, Nebraska, Wyoming and South Dakota. The average thickness of the aquifer is about 70 meters. The rate of water withdrawal from the aquifer exceeds the rate of recharge by a factor of eight.

Thus we can see that in many regions, the earth's present population is living on its inheritance of water, rather than its income. This fact, coupled with rapidly increasing populations and climate change, may contribute to a very serious food crisis partway through the 21st century.

Populations displaced by drought and famine

Climate change could produce a refugee crisis that is "unprecedented in human history", Barack Obama has warned as he stressed global warming was the most pressing issue of the age.

Speaking at an international food conference in Milan, the former US President said rising temperatures were already making it more difficult to grow crops and rising food prices were "leading to political instability".

If world leaders put aside "parochial interests" and took action to reduce greenhouse gas emissions by enough to restrict the rise to one or two degrees Celsius, then humanity would probably be able to cope.

Failing to do this, Mr Obama warned, increased the risk of "catastrophic" effects in the future, "not only real threats to food security, but also increases in conflict as a consequence of scarcity and greater refugee and migration patterns".

"If you think about monsoon patterns in the Indian subcontinent, maybe half a billion people rely on traditional rain patterns in those areas,"

Populations displaced by rising temperatures

A new study published in *Nature: Climate Change* has warned that up to 75% of the world's population could face deadly heat waves by 2100 unless greenhouse gas emissions are rapidly controlled.¹ The following is an excerpt from the article:

"Here we conducted a global analysis of documented lethal heat events to identify the climatic conditions associated with human death and then quantified the current and projected occurrence of such deadly climatic conditions worldwide. We reviewed papers published between 1980 and 2014, and found 783 cases of excess human mortality associated with heat from 164 cities in 36 countries.

"Based on the climatic conditions of those lethal heat events, we identified a global threshold beyond which daily mean surface air temperature and relative humidity become deadly. Around 30% of the world's population is currently exposed to climatic conditions exceeding this deadly threshold for at least 20 days a year.

¹Mora, C. et al., *Global risk of deadly heat*, *Nature: Climate Change*, 19 June 2017

“By 2100, this percentage is projected to increase to 48% under a scenario with drastic reductions of greenhouse gas emissions and 74% under a scenario of growing emissions. An increasing threat to human life from excess heat now seems almost inevitable, but will be greatly aggravated if greenhouse gases are not considerably reduced.”²

Conclusions

The subject of population stabilization is a highly sensitive and controversial one. Nevertheless it is an issue that must be confronted if a catastrophic global famine is to be avoided. The three terrible Malthusian forces, famine, disease and war. in the end will cut down any population that exceeds its means of support.

In the first edition of his book on population, Malthus wrote: “That population cannot increase without the means of subsistence is a proposition so evident that it needs no illustration. That population does invariably increase, where there are means of subsistence, the history of every people who have ever existed will abundantly prove. And that the superior power cannot be checked without producing misery and vice, the ample portion of these two bitter ingredients in the cup of human life, and the continuance of the physical causes that seem to have produced them, bear too convincing a testimony.”

In later editions, he modified this opinion and made it less pessimistic by allowing for the effect of preventive checks such as late marriage. Malthus considered birth control to be a form of vice, but today it is accepted as the most humane method of avoiding the grim Malthusian forces, famine, disease and war.

If we examine them in the light of current history, we can see that famine, disease and war are interlinked. War produces famine, and indeed famine has been used as an instrument of war, as we see in the conflicts now taking place in Somalia. Another link is the almost unbelievable economic cost of war. An estimated 1.7 trillion U.S. dollars were spent on armaments in 2017. Part of this colossal sum could instead have been used to provide primary health care to all the peoples of the world, and with it, access to the information and materials needed for family planning.

Let us work together to avoid the enormous suffering that would be involved if climate change and population growth combine to produce a catastrophic global famine.

13.2 Culture and solidarity

Our modern civilization has been built up by means of a worldwide exchange of ideas and inventions. It is built on the achievements of many ancient cultures. China, Japan, India, Mesopotamia, Egypt, Greece, the Islamic world, Christian Europe, and the Jewish intellectual traditions, all have contributed. Potatoes, corn, squash, vanilla, chocolate, chili peppers, and quinine are gifts from the American Indians.

²See also <https://phys.org/news/2017-08-deadly-south-asia-century.html> and <https://cleantechnica.com/2017/09/28/extreme-heatwaves-like-recent-lucifer-heatwave-become-normal-europe-2050s/>

The sharing of scientific and technological knowledge is essential to modern civilization. The great power of science is derived from an enormous concentration of attention and resources on the understanding of a tiny fragment of nature. It would make no sense to proceed in this way if knowledge were not permanent, and if it were not shared by the entire world.

Science is not competitive. It is cooperative. It is a great monument built by many thousands of hands, each adding a stone to the cairn. This is true not only of scientific knowledge but also of every aspect of our culture, history, art and literature, as well as the skills that produce everyday objects upon which our lives depend. Civilization is cooperative. It is not competitive.

Our cultural heritage is not only immensely valuable; it is also so great that no individual comprehends all of it. We are all specialists, who understand only a tiny fragment of the enormous edifice. No scientist understands all of science. Perhaps Leonardo da Vinci could come close in his day, but today it is impossible. Nor do the vast majority people who use cell phones, personal computers and television sets every day understand in detail how they work. Our health is preserved by medicines, which are made by processes that most of us do not understand, and we travel to work in automobiles and buses that we would be completely unable to construct.

The fragility of modern society

As our civilization has become more and more complex, it has become increasingly vulnerable to disasters. We see this whenever there are power cuts or transportation failures due to severe storms. If electricity should fail for a very long period of time, our complex society would cease to function. The population of the world is now so large that it is completely dependent on the high efficiency of modern agriculture. We are also very dependent on the stability of our economic system.

The fragility of modern society is particularly worrying, because, with a little thought, we can predict several future threats which will stress our civilization very severely. We will need much wisdom and solidarity to get safely through the difficulties that now loom ahead of us.

We can already see the the problem of famine in vulnerable parts of the world. Climate change will make this problem more severe by bringing aridity to parts of the world that are now large producers of grain, for example the Middle West of the United States. Climate change has caused the melting of glaciers in the Himalayas and the Andes. When these glaciers are completely melted, China, India and several countries in South America will be deprived of their summer water supply. Water for irrigation will also become increasingly problematic because of falling water tables. Rising sea levels will drown many rice-growing areas in South-East Asia. Finally, modern agriculture is very dependent on fossil fuels for the production of fertilizer and for driving farm machinery. In the future, high-yield agriculture will be dealt a severe blow by the rising price of fossil fuels.

Economic collapse is another threat that we will have to face in the future. Our present fractional reserve banking system is dependent on economic growth. But perpetual growth

of industry on a finite planet is a logical impossibility. Thus we are faced with a period of stress, where reform of our growth-based economic system and great changes of lifestyle will both become necessary.

How will we get through the difficult period ahead? I believe that solutions to the difficult problems of the future are possible, but only if we face the problems honestly and make the adjustments which they demand. Above all, we must maintain our human solidarity.

Who is my neighbor?

Are we losing the human solidarity that will be needed if our global society is to solve the pressing problems that are facing us today? Among the symptoms of loss of solidarity is the drift towards violence, racism and war that can be seen in some countries.³ To worried observers it seems reminiscent of Germany and Italy in the 1930's. Another warning symptom is the inhospitable reception that refugees have received in Europe and elsewhere.⁴

Tribalism

Human emotional nature evolved over the long prehistory of our species, when our remote ancestors lived small tribes, competing for territory on the grasslands of Africa. Since marriage within a tribe was much more frequent than marriage outside it, each tribe was genetically homogeneous, and the tribe itself, rather than the individual, was the unit upon which the forces of natural selection acted. Those tribes that exhibited internal solidarity, combined with aggression towards competing tribes, survived best. Over a long period of time, tribalism became a hard-wired part of human nature. We can see tribalism today in the emotions involved in football matches, in nationalism, and in war.

The birth of ethics

When humans began to live in larger and more cosmopolitan groups, it was necessary to overwrite some elements of raw human emotional nature. Tribalism became especially inappropriate, unless the scope of the perceived tribe could be extended to include everyone in the enlarged societies. Thus ethical principles were born. It is not just a coincidence

³<http://www.commondreams.org/news/2016/03/01/after-latest-display-bigotry-trump-again-faces-charges-racism> <http://www.truth-out.org/opinion/item/35053-an-open-letter-to-evangelical-trump-voters> <http://www.theguardian.com/commentisfree/2016/feb/29/donald-trump-us-election-2016-demagogue> <http://harpers.org/archive/1964/11/the-paranoid-style-in-american-politics/2/> <http://www.countercurrents.org/boyle020316.htm> <http://www.commondreams.org/views/2016/03/01/dont-cry-me-america> <https://www.washingtonpost.com/2016-election-results/super-tuesday/> <http://www.commondreams.org/views/2016/03/01/yemen-humanitarian-pause-urgently-needed>

⁴<http://www.commondreams.org/news/2016/03/01/new-low-europe-police-bulldoze-camps-tear-gas-asylum-seekers-and-shutter-borders>



Figure 13.1: **Who is my neighbor? The Parable of the Good Samaritan tells us that our neighbor may belong to an entirely different ethnic group. Nevertheless, he or she deserves our love and care.** (Wikipedia)

that the greatest ethical teachers of history lived at a time when the size of cooperating human societies was being enlarged.

All of the major religions of humanity contain some form of the Golden Rule. Christianity offers an especially clear statement of this central ethical principle: According to the Gospel of Luke, after being told that he must love his neighbor as much as he loves himself, a man asks Jesus, “Who is my neighbor?”. Jesus then replies with the Parable of the Good Samaritan, in which we are told that our neighbor need not be a member of our own tribe, but can live far away and can belong to a completely different nation or ethnic group. Nevertheless, that person is still our neighbor, and deserves our love and care.

The central ethical principle which is stated so clearly in the Parable of the Good Samaritan is exactly what we need today to avoid disaster. We must enlarge our loyalties to include the whole of humanity. We must develop a global ethic of comprehensive human solidarity, or else perish from a combination of advanced technology combined with primitive tribalism. Space-age science is exceedingly dangerous when it is combined with stone-age politics.⁵

The need for global solidarity comes from the instantaneous worldwide communication and economic interdependence that has resulted from advanced science and technology. Advanced technology, our almost miraculous ability to communicate through the Internet, Skype and smartphones, could weld the world into a single peaceful and cooperative unit. But we must learn to use global communication as a tool for developing worldwide human solidarity.

⁵<http://www.learndev.org/dl/SpaceAgeScienceStoneAgePolitics-Avery.pdf>

Each week, all over the world, congregations assemble and are addressed by their religious leaders on ethical issues. But all too often there is no mention of the astonishing and shameful contradiction between the institution of war (especially the doctrine of “massive retaliation”), and the principle of universal human brotherhood, loving and forgiving one’s enemies, and returning good for evil.

At a moment of history, when the continued survival of civilization is in doubt because of the incompatibility of war with the existence of thermonuclear weapons, our religious leaders ought to use their enormous influence to help to solve the problem of war, which is after all an ethical problem.

This is how Bertrand Russell expressed the need for human solidarity: *All who are not lunatics agree about certain things. That it is better to be alive than dead, better to be adequately fed than starved, better to be free than a slave. Many people desire those things only for themselves and their friends; they are quite content that their enemies should suffer. These people can be refuted by science: Humankind has become so much one family that we cannot insure our own prosperity except by insuring that of everyone else. If you wish to be happy yourself, you must resign yourself to seeing others also happy.*

13.3 New ethics to match new technology

Modern science has, for the first time in history, offered humankind the possibility of a life of comfort, free from hunger and cold, and free from the constant threat of death through infectious disease. At the same time, science has given humans the power to obliterate their civilization with nuclear weapons, or to make the earth uninhabitable through overpopulation and pollution. The question of which of these paths we choose is literally a matter of life or death for ourselves and our children.

Will we use the discoveries of modern science constructively, and thus choose the path leading towards life? Or will we use science to produce more and more lethal weapons, which sooner or later, through a technical or human failure, may result in a catastrophic nuclear war? Will we thoughtlessly destroy our beautiful planet through unlimited growth of population and industry? The choice among these alternatives is ours to make. We live at a critical moment of history - a moment of crisis for civilization.

No one living today asked to be born at such a moment, but by an accident of birth, history has given us an enormous responsibility, and two daunting tasks: If civilization is to survive, we must not only stabilize the global population but also, even more importantly, we must eliminate the institution of war. We face these difficult tasks with an inherited emotional nature that has not changed much during the last 40,000 years. Furthermore, we face the challenges of the 21st century with an international political system based on the anachronistic concept of the absolutely sovereign nation-state. However, the human brain has shown itself to be capable of solving even the most profound and complex problems. The mind that has seen into the heart of the atom must not fail when confronted with paradoxes of the human heart.

The problem of building a stable, just, and war-free world is difficult, but it is not im-

possible. The large regions of our present-day world within which war has been eliminated can serve as models. There are a number of large countries with heterogeneous populations within which it has been possible to achieve internal peace and social cohesion, and if this is possible within such extremely large regions, it must also be possible globally.

We must replace the old world of international anarchy, chronic war and institutionalized injustice, by a new world of law. The United Nations Charter, the Universal Declaration of Human Rights and the International Criminal Court are steps in the right direction, but these institutions need to be greatly strengthened and reformed.

We also need a new global ethic, where loyalty to one's family and nation will be supplemented by a higher loyalty to humanity as a whole.

Creating the future

The chorus of a popular song repeats a message of comforting (but irresponsible) fatalism: *Que Sera Sera. Whatever will be, will be. The future's not ours to see. Que Sera Sera. What will be will be.* But can we allow ourselves the luxury of fatalism, especially today, when our future is darkened by the twin threats of catastrophic climate change and thermonuclear war.?

Must we not accept our responsibility for both the near future and the distant future. We must do all that is within our power to make our world one in which our children and their descendants can survive? We must save the environment. We must save plants and animals from extinction.

What has happened to the global environment is a human creation. Its very name, the anthropocene, indicates that we made it. What will happen in the future will also be our creation, the sum of the choices that we make.

War is a human creation. Just as we abolished slavery, we can also abolish the institution of war. It is our responsibility to do so.

The tribal tendencies of human nature are not inevitable. Racism is not inevitable. Nationalist Chauvinism is not inevitable. The dark side of human nature can be overwritten by education and ethics. It is our responsibility to create a global ethical system that matches our advanced technology. We must create an ethic of universal human solidarity.

Global anarchy is not inevitable. We can extend the methods used to avoid war within nations to the entire world. We can reform the United Nations and create a global federation capable of effectively achieving the goals that we desire.

Our economic system is a human creation. The laws of the market are not really laws: They are choices. If we choose we could maximize human happiness, rather than maximizing production and profits.

The population explosion is not inevitable. It is a result of human choices. The threat of an extremely severe worldwide famine resulting from climate change, exploding populations and end of the fossil fuel era is not inevitable. If such a famine comes, it will be the result of human choices.

The decay of democracy is not inevitable. Oligarchy is not inevitable. These evils are the result of neglect and political irresponsibility. As citizens, we must have the courage

to restore democracy in countries where it has disappeared, and to create it in countries where it never existed.

We live in a special time, a time of crisis. Here are the responsibilities that history has given to our generation:

- We need system change, not climate change!
- We need a new economic system, a new society, a new social contract, a new way of life.
- We must achieve a steady-state economic system. Limitless growth on a finite planet is a logical absurdity.
- We must restore democracy in countries where it has decayed, and create it in countries where it never existed.
- We must decrease economic inequality.
- We must break the power of corporate greed.
- We must leave fossil fuels in the ground.
- We must stabilize and ultimately reduce global population to a level that can be supported by sustainable agriculture.
- We must abolish the institution of war before modern weapons destroy us.
- And finally, we must develop a mature ethical system to match our new technology.

No one is exempt from these responsibilities. No one can achieve these goals alone; but together we can create the future that we choose.

The Nobel laureate biochemist Albert Szent-Györgyi once wrote:

“The story of man consists of two parts, divided by the appearance of modern science.... In the first period, man lived in the world in which his species was born and to which his senses were adapted. In the second, man stepped into a new, cosmic world to which he was a complete stranger.... The forces at man’s disposal were no longer terrestrial forces, of human dimension, but were cosmic forces, the forces which shaped the universe. The few hundred Fahrenheit degrees of our flimsy terrestrial fires were exchanged for the ten million degrees of the atomic reactions which heat the sun.”

“This is but a beginning, with endless possibilities in both directions - a building of a human life of undreamt of wealth and dignity, or a sudden end in utmost misery. Man lives in a new cosmic world for which he was not made. His survival depends on how well and how fast he can adapt himself to it, rebuilding all his ideas, all his social and political institutions.”

“...Modern science has abolished time and distance as factors separating nations. On our shrunken globe today, there is room for one group only - the family of man.”



Figure 13.2: Cultural activities strengthen internationalism, use very few resources, and produce almost no waste.

Compassion and Greed: Two sides of Human Nature

Humans are capable of great compassion and unselfishness. Mothers and fathers make many sacrifices for the sake of their families. Kind teachers help us through childhood, and show us the right path. Doctors and nurses devote themselves to the welfare of their patients.

Sadly there is another, side to human nature, a darker side. Human history is stained with the blood of wars and genocides. Today, this dark, aggressive side of human nature threatens to plunge our civilization into an all-destroying thermonuclear war.

Humans often exhibit kindness to those who are closest to themselves, to their families and friends, to their own social group or nation. By contrast, the terrible aggression seen in wars and genocides is directed towards outsiders. Human nature seems to exhibit what might be called “tribalism”: altruism towards one’s own group; aggression towards outsiders. Today this tendency towards tribalism threatens both human civilization and the biosphere.

Greed, in particular the greed of corporations and billionaire oligarchs, is driving human civilization and the biosphere towards disaster.

The greed of giant fossil fuel corporations is driving us towards a tipping point after which human efforts to control climate change will be futile because feedback loops will have taken over. The greed of the military industrial complex is driving us towards a Third World War that might develop into a catastrophic thermonuclear war. The greed of our financial institutions is also driving us towards economic collapse, as we see in the case of Greece.

Until the start of the Industrial Revolution in the 18th and 19th centuries, human society maintained a more or less sustainable relationship with nature. However, with the beginning of the industrial era, traditional ways of life, containing elements of both social



Figure 13.3: Greed is driving us towards disaster.

and environmental ethics, were replaced by the money-centered, growth-oriented life of today, from which these vital elements are missing.

According to the followers of Adam Smith (1723-1790), self-interest (even greed) is a sufficient guide to human economic actions. The passage of time has shown that Smith was right in many respects. The free market, which he advocated, has turned out to be the optimum prescription for economic growth. However, history has also shown that there is something horribly wrong or incomplete about the idea that self-interest alone, uninfluenced by ethical and ecological considerations, and totally free from governmental intervention, can be the main motivating force of a happy and just society. There has also proved to be something terribly wrong with the concept of unlimited economic growth.

The Industrial Revolution marked the start of massive human use of fossil fuels. The stored energy from several hundred million years of plant growth began to be used at roughly a million times the rate at which it had been formed. The effect on human society was like that of a narcotic. There was a euphoric (and totally unsustainable) surge of growth of both population and industrial production. Meanwhile, the carbon released into the atmosphere from the burning of fossil fuels began to duplicate the conditions which led to the 5 geologically-observed mass extinctions, during each of which more than half of all living species disappeared forever.



Figure 13.4: ... but compassion can save us.

The Stern Review Discussion Paper of 2006 stated that “Melting of permafrost in the Arctic could lead to the release of huge quantities of methane. Dieback of the Amazon forest could mean that the region starts to emit rather than to absorb greenhouse gases. These feedbacks could lead to warming that is at least twice as fast as current high-emission projections, leading to temperatures higher than seen in the last 50 million years.”

The greed of giant fossil fuel corporations has recently led them to conduct large-scale advertising campaigns to convince the public that anthropogenic climate change is not real. These corporations own vast oil, coal and gas reserves that must be kept in the ground if we are to avoid catastrophic global warming. It does not seem to bother the fossil fuel giants that if the earth is made uninhabitable, future generations of both humans and animals will perish.

When the United Nations was established in 1945, the purpose of the organization was to abolish the institution of war. This goal was built into many of the articles of the UN Charter. Accordingly, throughout the world, many War Departments were renamed and became Departments of Defense. But the very name is a lie. In an age of nuclear threats and counter-threats, populations are by no means protected. Ordinary citizens are just hostages in a game for power and money. It is all about greed.

Why is war continually threatened? Why is Russia threatened? Why is war with Iran threatened? Why fan the flames of conflict with China? Is it to “protect” civilians? Absolutely not! In a thermonuclear war, hundreds of millions of civilians would die horribly

everywhere in the world, also in neutral countries. What is really being protected are the profits of arms manufacturers. As long as there are tensions; as long as there is a threat of war, military budgets are safe; and the profits of arms makers are safe. The people in several “democracies”, for example the United States, do not rule at the moment. Greed rules.

Greed and lack of ethics are built into the structure of corporations. By law, the Chief Executive Officer of a corporation must be entirely motivated by the collective greed of the stockholders. He must maximize profits. Nothing must count except the bottom line. If the CEO abandons this single-minded chase after corporate profits for ethical reasons, or for the sake of humanity or the biosphere or the future, he (or she) must, by law, be fired and replaced.

Occasionally, for the sake of their public image, corporations seem to do something for other motives than their own bottom line, but it is usually window dressing. For example, Shell claims to be supporting research on renewable energy. Perhaps there is indeed a small renewable energy laboratory somewhere in that vast corporation; but the real interest of the organization is somewhere else. Shell is sending equipment on a large scale to drill for more and more environment-destroying oil in the Arctic.

What does Christianity say about greed? Wikipedia states that “The seven deadly sins, also known as capital vices or cardinal sins, is a classification of vices (part of Christian ethics) that has been used since early Christian times to educate and instruct Christians concerning fallen humanity’s tendency to sin. In the currently recognized version, the sins are usually given as wrath, greed, sloth, pride, lust, envy and gluttony. Each is a form of Idolatry-of-Self wherein the subjective reigns over the objective.”

Saint Thomas Aquinas wrote: “Greed is a sin against God, just as all mortal sins, in as much as man condemns things eternal for the sake of temporal things”.

In the New Testament, we can find many passages condemning greed, for example:

“For the love of money is the root of all evil: which while some coveted after, they have erred from the faith, and pierced themselves through with many sorrows.” Timothy 6:10

“Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal.” Mathew 6:19

In his encyclical *Laudato Si'*, and on his recent visit to South America, Pope Francis has spoken strongly against economic activity that lacks both social and environmental ethics.

Much depends on whether we are able to break the power that corporations and extremely rich oligarchs now hold over our governments and our mass media. Pope Francis has shown by example what a world leader of courage and honesty can do. Most of us are not in such a position, but each person can do his or her best to restore democracy where it has been lost to corporate money and greed. If the mass media have sold themselves to the highest bidder, we can make our own media. If most politicians are corrupt, we can make our own political movements. As Shelly said, “We are many, they are few”.

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