

New Eugenics and the Rise of the Global Scientific Dictatorship

The Technological Revolution and the Future of Freedom, Part 3

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*This is the third and final part of the series, **“The Technological Revolution and the Future of Freedom.”***

[Part 1: The Global Political Awakening and the New World Order](#)

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Introduction

We are in the midst of the most explosive development in all of human history. Humanity is experiencing a simultaneously opposing and conflicting geopolitical transition, the likes of which has never before been anticipated or experienced. Historically, the story of humanity has been the struggle between the free-thinking individual and structures of power controlled by elites that seek to dominate land, resources and people. The greatest threat to elites at any time – historically and presently – is an awakened, critically thinking and politically stimulated populace. This threat has manifested itself throughout history, in different places and at different times. Ideas of freedom, democracy, civil and human rights, liberty and equality have emerged in reaction and opposition to power structures and elite systems of control.

The greatest triumphs of the human mind – whether in art, science or thought – have arisen out of and challenged great systems of power and control. The greatest of human misery and tragedy has arisen out of the power structures and systems that elites always seek to construct and manage. War, genocide, persecution and human degradation are directly the result of decisions made by those who control the apparatus of power, whether the power manifests itself as intellectual, ecclesiastical, spiritual, militaristic, or scientific. The most malevolent and ruthless power is that over the free human mind: if one controls how one thinks, they control the individual itself. The greatest human achievements are where individuals have broken free the shackles that bind the mind and let loose the inherent and undeniable power that lies in each and every individual on this small little planet.

Currently, our world is at the greatest crossroads our species has ever experienced. We are in the midst of the first truly global political awakening, in which for the first time in all of human history, all of mankind is politically awakened and stirring; in which whether inadvertently or intentionally, people are thinking and acting in political terms. This awakening is most evident in the developing world, having been made through personal experience to be acutely aware of the great disparities, disrespect, and domination inherent

in global power structures. The awakening is spreading increasingly to the west itself, as the majority of the people living in the western developed nations are thrown into poverty and degradation. The awakening will be forced upon all people all over the world. Nothing, no development, ever in human history, has posed such a monumental threat to elite power structures.

This awakening is largely driven by the Technological Revolution, which through technology and electronics, in particular mass media and the internet, have made it so that people across the world are able to become aware of global issues and gain access to information from around the world. The Technological Revolution, thus, has fostered an Information Revolution which has, in turn, fed the global political awakening.

Simultaneously, the Technological Revolution has led to another unique and unprecedented development in human history, and one that is diametrically opposed, yet directly related to the global political awakening. For the first time in human history, free humanity is faced with the dominating threat of a truly global elite, who have at their hands the technology to impose a truly global system of control: a global scientific dictatorship. The great danger is that through the exponential growth in scientific techniques, elites will use these great new powers to control and dominate all of humanity in such a way that has never before been experienced.

Through all of human history, tyrants have used coercive force and terror to control populations. With the Technological Revolution, elites increasingly have the ability to control the very biology and psychology of the individual to a point where it may not be necessary to impose a system of terror, but rather where the control is implemented on a much deeper, psychological, subliminal and individual biological manner. While terror can prevent people from opposing power for a while, the scientific dictatorship can create a personal psycho-social condition in which the individual comes to love his or her own slavery; in which, like a mentally inferior pet, they are made to love their leaders and accept their servitude.

So we are presented with a situation in which humanity is faced with both the greatest threat and the greatest hope that we have ever collectively experienced in our short human history. This essay, the third part in the series, "The Technological Revolution and the Future of Freedom," examines the ideas behind the global scientific dictatorship, and how it may manifest itself presently and in the future, with a particular focus on the emergence of 'new eugenics' as a system of mass control.

Free humanity faces the most monumental decision we have ever been presented with: do we feed and fuel the global political awakening into a true human psycho-social revolution of the mind, creating a new global political economy which empowers and liberates all of humanity; or... do we fall silently into a 'brave new world' of a global scientific oppression, the likes of which have never before been experienced, and whose dominance would never be more difficult to challenge and overcome?

We can either find a true freedom, or descend into a deep despotism. We are not powerless before this great ideational beast. We have, at our very fingertips the ability to use technology to our benefit and to re-shape the world so that it benefits the people of the world and not simply the powerful. It must be freedom for all or freedom for none.

What is the 'Scientific Dictatorship'?

In 1932, Aldous Huxley wrote his dystopian novel, "Brave New World," in which he looked at the emergence of the scientific dictatorships of the future. In his 1958 essay, "Brave New World Revisited," Huxley examined how far the world had come in that short period since his book was published, and where the world was heading. Huxley wrote that:

In politics the equivalent of a fully developed scientific theory or philosophical system is a totalitarian dictatorship. In economics, the equivalent of a beautifully composed work of art is the smoothly running factory in which **the workers are perfectly adjusted to the machines.** The Will to Order can make tyrants out of those who merely aspire to clear up a mess. **The beauty of tidiness is used as a justification for despotism.**[1]

Huxley explained that, "The future dictator's subjects will be painlessly regimented by a corps of highly trained social engineers," and he quotes one "advocate of this new science" as saying that, "The challenge of social engineering in our time is like the challenge of technical engineering fifty years ago. If the first half of the twentieth century was the era of technical engineers, the second half may well be the era of social engineers." Thus, proclaims Huxley, **"The twenty-first century, I suppose, will be the era of World Controllers, the scientific caste system and Brave New World."**[2]

In 1952, Bertrand Russell, a British philosopher, historian, mathematician, and social critic wrote the book, "The Impact of Science on Society," in which he warned and examined how science, and the technological revolution, was changing and would come to change society. In his book, Russell explained that:

I think the subject which will be of most importance politically is mass psychology. Mass psychology is, scientifically speaking, not a very advanced study... This study is immensely useful to practical men, whether they wish to become rich or to acquire the government. It is, of course, as a science, founded upon individual psychology, but hitherto it has employed rule-of-thumb methods which were based upon a kind of intuitive common sense. **Its importance has been enormously increased by the growth of modern methods of propaganda. Of these the most influential is what is called 'education'.** Religion plays a part, though a diminishing one; the Press, the cinema and the radio play an increasing part.

What is essential in mass psychology is the art of persuasion. If you compare a speech of Hitler's with a speech of (say) Edmund Burke, you will see what strides have been made in the art since the eighteenth century. What went wrong formerly was that people had read in books that man is a rational animal, and framed their arguments on this hypothesis. We now know that limelight and a brass band do more to persuade than can be done by the most elegant train of syllogisms. **It may be hoped that in time anybody will be able to persuade anybody of anything if he can catch the patient young and is provided by the State with money and equipment.**

This subject will make great strides when it is taken up by scientists under a scientific dictatorship.[3]

Russell went on to analyze the question of whether a 'scientific dictatorship' is more stable than a democracy, on which he postulated:

Apart from the danger of war, I see no reason why such a regime should be unstable. After

all, most civilised and semi-civilised countries known to history have had a large class of slaves or serfs completely subordinate to their owners. There is nothing in human nature that makes the persistence of such a system impossible. And **the whole development of scientific technique has made it easier than it used to be to maintain a despotic rule of a minority.** When the government controls the distribution of food, its power is absolute so long as it can count on the police and the armed forces. And their loyalty can be secured by giving them some of the privileges of the governing class. **I do not see how any internal movement of revolt can ever bring freedom to the oppressed in a modern scientific dictatorship.**[4]

Drawing on the concept popularized by Aldous Huxley – of people loving their servitude – Bertrand Russell explained that under a scientific dictatorship:

It is to be expected that **advances in physiology and psychology will give governments much more control over individual mentality than they now have even in totalitarian countries.** Fichte laid it down that **education should aim at destroying free will**, so that, after pupils have left school, they shall be incapable, throughout the rest of their lives, of thinking or acting otherwise than as their schoolmasters would have wished... Diet, injections, and injunctions will combine, from a very early age, **to produce the sort of character and the sort of beliefs that the authorities consider desirable, and any serious criticism of the powers that be will become psychologically impossible. Even if all are miserable, all will believe themselves happy, because the government will tell them that they are so.**[5]

Russell explained that, “The completeness of the resulting control over opinion depends in various ways upon scientific technique. Where all children go to school, and all schools are controlled by the government, **the authorities can close the minds of the young to everything contrary to official orthodoxy.**”[6] Russell later proclaimed in his book that, **“a scientific world society cannot be stable unless there is a world government.”**[7] He elaborated:

Unless there is a world government which secures universal birth control, there must be from time to time great wars, in which the penalty of defeat is widespread death by starvation. That is exactly the present state of the world, and some may hold that there is no reason why it should not continue for centuries. I do not myself believe that this is possible. **The two great wars that we have experienced have lowered the level of civilization in many parts of the world, and the next is pretty sure to achieve much more in this direction. Unless, at some stage, one power or group of powers emerges victorious and proceeds to establish a single government of the world with a monopoly of armed force,** it is clear that the level of civilization must continually decline until scientific warfare becomes impossible – that is until science is extinct.[8]

Russell explains that eugenics plays a central feature in the construction of any world government scientific dictatorship, stating that, “Gradually, by selective breeding, **the congenital differences between rulers and ruled will increase until they become almost different species. A revolt of the plebs would become as unthinkable as an organized insurrection of sheep against the practice of eating mutton.**”[9]

In a 1962 speech at UC Berkeley, Aldous Huxley spoke about the real world becoming the ‘Brave New World’ nightmare he envisaged. Huxley spoke primarily of the ‘Ultimate Revolution’ that focuses on ‘behavioural controls’ of people. Huxley said of the ‘Ultimate

Revolution':

In the past, we can say, that **all revolutions have essentially aimed at changing the environment in order to change the individual.** There's been the political revolution, the economic revolution . . . the religious revolution. All these aimed as I say not directly at the human being but at his surroundings, so by modifying his surroundings you did achieve - at one remove - an effect upon the human being.

Today, we are faced, I think, with the approach of what may be called the 'Ultimate Revolution' - the 'Final Revolution' - where man can act directly on the mind-body of his fellows. Well needless to say some kind of direct action on human mind-bodies has been going on since the beginning of time, but this has generally been of a violent nature. The techniques of terrorism have been known from time immemorial, and people have employed them with more-or-less ingenuity, sometimes with utmost crudity, sometimes with a good deal of skill acquired with a process of trial and error - finding out what the best ways of using torture, imprisonments, constraints of various kinds . . .

If you are going to control any population for any length of time, you must have some measure of consent. It's exceedingly difficult to see how pure terrorism can function indefinitely, it can function for a fairly long time; **but sooner or later you have to bring in an element of persuasion, an element of getting people to consent to what is happening to them.**

Well it seems to me the nature of the Ultimate Revolution with which we are now faced is precisely this: that **we are in process of developing a whole series of techniques, which will enable the controlling oligarchy - who have always existed and will presumably always exist - to get people to love their servitude.** This is the ultimate in malevolent revolution...

There seems to be a general movement in the direction of this kind of Ultimate Control, this method of control, by which **people can be made to enjoy a state of affairs by which any decent standard they ought not to enjoy; the enjoyment of servitude . . .**

I am inclined to think that the scientific dictatorships of the future - and I think there are going to be scientific dictatorships in many parts of the world - will be probably a good deal nearer to the Brave New World pattern than to the 1984 pattern. They will be a good deal nearer, not because of any humanitarian qualms in the scientific dictators, but simply because the 'brave new world' pattern is probably a good deal more efficient than the other. **That if you can get people to consent to the state of affairs in which they are living - the state of servitude - if you can do this, then you are likely to have a much more stable, a much more lasting society; much more easily controllable society** than you would if you were relying wholly on clubs, and firing squads and concentration camps.[10]

In 1961, President Eisenhower delivered his farewell address to the nation in which he warned of the dangers to democracy posed by the military-industrial complex: the interconnected web of industry, the military, and politics creating the conditions for constant war. In that same speech, Eisenhower warned America and the world of another important change in society:

Today, the solitary inventor, tinkering in his shop, has been overshadowed by task forces of

scientists in laboratories and testing fields. In the same fashion, **the free university, historically the fountainhead of free ideas and scientific discovery, has experienced a revolution in the conduct of research. Partly because of the huge costs involved, a government contract becomes virtually a substitute for intellectual curiosity.** For every old blackboard there are now hundreds of new electronic computers.

The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present - and is gravely to be regarded.

Yet, in holding scientific research and discovery in respect, as we should, **we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite.**[11]

In 1970, Zbigniew Brzezinski wrote about "the gradual appearance of a more controlled and directed society," in the "technetronic revolution"; explaining:

Such a society would be dominated by an elite whose claim to political power would rest on allegedly superior scientific know-how. Unhindered by the restraints of traditional liberal values, **this elite would not hesitate to achieve its political ends by using the latest modern techniques for influencing public behavior and keeping society under close surveillance and control.** Under such circumstances, the scientific and technological momentum of the country would not be reversed but would actually feed on the situation it exploits.[12]

New Eugenics

Many sciences and large social movements are directed by the same foundations and money that financed the eugenics movement in the early 20th century. The Rockefeller foundations, Ford, Carnegie, Mellon, Harriman, and Morgan money that flowed into eugenics led directly to 'scientific racism,' and ultimately the Holocaust in World War II.[13] Following the Holocaust, Hitler had discredited the eugenics movement he admired so much in America. So the movement branched off into forming several other social engineering projects: population control, genetics, and environmentalism. The same foundations that laid the foundations for eugenic ideology - the belief in a biological superiority and right to rule (justifying their power) - then laid the foundations for these and other new social and scientific movements.

Major environmental and conservation organizations were founded with Rockefeller and Ford Foundation money,[14] which then continued to be central sources of funding to this day; while the World Wildlife Fund (WWF) was founded in 1961 by Sir Julian Huxley, Aldous Huxley's brother, who was also the President of the British Eugenics Society. Prince Bernhard of the Netherlands became the organization's first president. Prince Bernhard also happened to be one of the founders of the elite global think tank, the Bilderberg Group, which he co-founded in 1954; and he was previous to that, a member of the Nazi Party and an SS officer.[15] Sir Julian Huxley also happened to be the first Director-General of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). In 1946, Huxley wrote a paper titled, "UNESCO: It's Purpose and its Philosophy." In it, he wrote that the general focus of UNESCO:

is to help the emergence of a single world culture, with its own philosophy and background of ideas, and with its own broad purpose. This is opportune, since **this is the first time in history that the scaffolding and the mechanisms for world unification have become available**, and also the first time that man has had the means (in the shape of scientific discovery and its applications) of laying a world-wide foundation for the minimum physical welfare of the entire human species...[16]

At the moment, it is probable that the indirect effect of civilisation is dysgenic instead of eugenic; and in any case it seems likely that the dead weight of genetic stupidity, physical weakness, mental instability, and disease-proneness, which already exist in the human species, will prove too great a burden for real progress to be achieved. **Thus even though it is quite true that any radical eugenic policy will be for many years politically and psychologically impossible, it will be important for Unesco to see that the eugenic problem is examined with the greatest care, and that the public mind is informed of the issues at stake so that much that now is unthinkable may at least become thinkable...**[17]

Still another and quite different type of borderline subject is that of eugenics. It has been on the borderline between the scientific and the unscientific, constantly in danger of becoming a pseudo- science based on preconceived political ideas or on assumptions of racial or class superiority and inferiority. **It is, however, essential that eugenics should be brought entirely within the borders of science, for, as already indicated, in the not very remote future the problem of improving the average quality of human beings is likely to become urgent; and this can only be accomplished by applying the findings of a truly scientific eugenics...**[18]

It is worth pointing out that the applications of science at once bring us up against social problems of various sorts. Some of these are direct and obvious. Thus the application of genetics in eugenics immediately raises the question of values- **what qualities should we desire to encourage in the human beings of the future?**[19]

On page 6 of the UNESCO document, Sir Julian Huxley wrote that, "in order to carry out its work, an organisation such as Unesco needs not only a set of general aims and objects for itself, but also **a working philosophy, a working hypothesis concerning human existence and its aims and objects**, which will dictate, or at least indicate, a definite line of approach to its problems." [20] While much of the language of equality and education sounds good and benevolent, it is based upon a particular view of humanity as an irrational, emotionally driven organism which needs to be controlled. Thus, the 'principle of equality' becomes "The Fact of Inequality":

Finally we come to a difficult problem-that of discovering **how we can reconcile our principle of human equality with the biological fact of human inequality...** The democratic principle of equality, which is also Unesco's, is a principle of equality of opportunity-that human beings should be equal before the law, should have equal opportunities for education, for making a living, for freedom of expression and movement and thought. **The biological absence of equality, on the other hand, concerns the natural endowments of man and the fact of genetic difference in regard to them.**

There are instances of biological inequality which are so gross that they cannot be reconciled at all with the principle of equal opportunity. **Thus low-grade mental defectives cannot be offered equality of educational opportunity**, nor are the insane

equal with the sane before the law or in respect of most freedoms. However, **the full implications of the fact of human inequality have not often been drawn and certainly need to be brought out here, as they are very relevant to Unesco's task.**[21]

Many of these “genetic inequalities” revolve around the idea of intellectual superiority: the idea that there is no equality among the intellectually inferior and superior. That inequality is derived from human biology – from genetics; it is a “human fact.” It just so happens that elites who propagate this ideology, also happen to view the masses as intellectually inferior; thus, there can be no social equality in a world with a technological intellectual elite. So eugenics must be employed, as the UENSCO paper explains, to address the issues of raising human welfare to a manageable level; that the time will come where elites will need to address the whole of humanity as a single force, and with a single voice. Eugenics is about the social organization and control of humanity. Ultimately, eugenics is about the engineering of inequality. In genetics, elites found a way to take discrimination down to the DNA.

Genetics as Eugenics

Award-winning author and researcher, Edwin Black, wrote an authoritative history of eugenics in his book, “War Against the Weak,” in which he explained that, “the incremental effort to transform eugenics into human genetics forged an entire worldwide infrastructure,” with the founding of the Institute for Human Genetics in Copenhagen in 1938, led by Tage Kemp, a Rockefeller Foundation eugenicist, and was financed with money from the Rockefeller Foundation.[22] While not abandoning the eugenics goals, the new re-branded eugenics movement “claimed to be eradicating poverty and saving the environment.”[23]

In a 2001 issue of Science Magazine, Garland Allen, a scientific historian, wrote about genetics as a modern form of eugenics. He began by citing a 1998 article in Time Magazine which proclaimed that, “Personality, temperament, even life choices. New studies show it's mostly in your genes.” Garland explains the implications:

Coat-tailing on major advances in genetic biotechnology, these articles portray genetics as the new “magic bullet” of biomedical science that will solve many of our recurrent social problems. **The implication is that these problems are largely a result of the defective biology of individuals or even racial or ethnic groups.** If aggressive or violent behavior is in the genes, so the argument goes, then **the solution lies in biomedical intervention-gene therapy in the distant future and pharmacotherapy** (replacing the products of defective genes with drug substitutes) in the immediate future.

By promoting such claims, are we heading toward a new version of eugenics? Are we getting carried away with the false promise of a technological fix for problems that really lie in the structure of our society? **My answer to these questions is “yes,”** but with some important qualifications that derive from the different historical and social contexts of the early 1900s and the present...

The term eugenics was coined in 1883 by the Victorian polymath Francis Galton, geographer, statistician, and first cousin of Charles Darwin. It meant to him “truly- or well-born,” and referred to **a plan to encourage the “best people” in society to have more children (positive eugenics) and to discourage or prevent the “worst elements” of society from having many, if any, children (negative eugenics).**

Eugenics became solidified into a movement in various countries throughout the world in the first three decades of the 20th century, but nowhere more solidly than in the United States and, after World War I, in Germany.[24]

While genetic traits such as eye colour and the like were proven to be hereditary, “eugenicists were more interested in the inheritance of social behaviors, intelligence, and personality.” Further:

American eugenicists also strove to disseminate the results of eugenic research to the public and to lawmakers. They supported the idea of positive eugenics [encouraging the ‘best’ to become better], but focused most of their energies on negative eugenics [to encourage the ‘worst’ to become fewer]. Eugenicists wrote hundreds of articles for popular magazines, published dozens of books for the general (and some for the scientific) reader, prepared exhibits for schools and state fairs, made films, and wrote sermons and novels.[25]

American eugenicists, fully backed by the financial support of the major American philanthropic fortunes, passed eugenics legislation in over 27 states across the United States, often in the form of forced sterilizations for the mentally ‘inferior’, so that, “By the 1960s, when most of these laws were beginning to be repealed, more than 60,000 people had been sterilized for eugenic purposes.” As Garland Allen wrote:

For the wealthy benefactors that supported eugenics, such as the Carnegie, Rockefeller, Harriman, and Kellogg philanthropies, **eugenics provided a means of social control in a period of unprecedented upheaval and violence. It was these same economic elites and their business interests who introduced scientific management and organizational control into the industrial sector...**

[In 1994] we saw the resurrection of claims that there are genetic differences in intelligence between races, leading to different socio-economic status. **Claims about the genetic basis for criminality, manic depression, risk-taking, alcoholism, homosexuality, and a host of other behaviors have also been rampant in scientific and especially popular literature.** Much of the evidence for such claims is as controversial today as in the past.

We seem to be increasingly unwilling to accept what we view as imperfection in ourselves and others. As health care costs skyrocket, we are coming to accept a bottom-line, cost-benefit analysis of human life. This mind-set has serious implications for reproductive decisions. If a health maintenance organization (HMO) requires in utero screening, and refuses to cover the birth or care of a purportedly “defective” child, how close is this to eugenics? If gene or drug therapy is substituted for improving our workplace or school environments, our diets and our exercise practices, how close is this to eugenics? Significant social changes are expensive, however. **If eugenics means making reproductive decisions primarily on the basis of social cost, then we are well on that road.**[26]

Genetics unleash an unprecedented power into human hands: the power of unnatural creation and the manipulation of biology. We do not yet fully understand nor comprehend the implications of genetic manipulation in our food, plants, animals, and in humans, themselves. What is clear is that we are changing the very biology of our environment and ourselves in it. While there are many clear and obvious benefits to genetic technology, such

as the ability to enhance ailing senses (sight, hearing, etc.) and cure diseases, the positive must be examined and discussed with the negative repercussions of genetic manipulation so as to better direct the uses of this powerful technology.

Debates on issues such as stem-cell research and genetic manipulation often focus on a science versus religion aspect, where science seeks to benevolently cure mankind of its ailments and religion seeks to preserve the sanctity of 'creation'. This is an irrational and narrow manner to conduct a real debate on this monumental issue, painting the issue as black and white, which it most certainly is not. Science can be used for good as well as bad, and human history, most especially that of the 20th century, is nothing if not evidence for that fact. Incredible scientific ingenuity went into the creation of great weapons; the manipulation of the atom to kill millions in an instant, or the manufacturing of biological and chemical weapons. The problem with the interaction of science and power is that with such great power comes the temptation to use and abuse it. If the ability to create a weapon like an atom bomb seems possible, most certainly there are those who seek to make it probable. Where there is temptation, there is human weakness.

So while genetics can be used for benevolent purposes and for the betterment of humankind, so too can it be used to effectively create a biological caste system, where in time it would be feasible to see a break in the human race, where as human advancement technologies become increasingly available, their use is reserved to the elite so that there comes a time where there is a biological separation in the human species. Oliver Curry, an evolutionary theorist from the London School of Economics predicted that "the human race will have reached its physical peak by the year 3000" and that, "The human race will one day split into two separate species, an attractive, intelligent ruling elite and an underclass of dim-witted, ugly goblin-like creatures." [27] Such was the plot of H.G. Wells' classic book, "The Time Machine," who was himself, a prominent eugenicist at the turn of the 20th century. While this would be a long time from now, its potential results from the decisions we make today.

Population Control as Eugenics

Not only was the field of genetics born of eugenics, and heavily financed by the same monied-interests that seek social control; but so too was the field of population control. In environmental literature and rhetoric, one concept that has emerged over the years as playing a significant part is that of population control. Population is seen as an environmental issue because the larger the population, the more resources it consumes and land it occupies. In this concept, the more people there are the worse the environment becomes. Thus, programs aimed at controlling population growth are often framed in an environmentalist lens. There is also a distinctly radical element in this field, which views population growth not simply as an environmental concern, but which frames people, in general, as a virus that must be eradicated if the earth is to survive.

However, in the view of elites, population control is more about controlling the people than saving the environment. Elites have always been drawn to population studies that have, in many areas, helped construct their worldview. Concerns about population growth really took hold with Thomas Malthus at the end of the 18th century. In 1798, Malthus wrote a "theory on the nature of poverty," and he "called for population control by moral restraint," citing charity as a promotion of "generation-to-generation poverty and simply made no sense in the natural scheme of human progress." Thus, the idea of 'charity' became immoral. The

eugenics movement attached itself to Malthus' theory regarding the "rejection of the value of helping the poor." [28]

The ideas of Malthus, and later Herbert Spencer and Charles Darwin were remolded into branding an elite ideology of "Social Darwinism", which was "the notion that in the struggle to survive in a harsh world, many humans were not only less worthy, many were actually destined to wither away as a rite of progress. To preserve the weak and the needy was, in essence, an unnatural act." [29] This theory simply justified the immense wealth, power and domination of a small elite over the rest of humanity, as that elite saw themselves as the only truly intelligent beings worthy of holding such power and privilege.

Francis Galton later coined the term "eugenics" to describe this emerging field. His followers believed that the 'genetically unfit' "would have to be wiped away," using tactics such as, "segregation, deportation, castration, marriage prohibition, compulsory sterilization, passive euthanasia - and ultimately extermination." [30] The actual science of eugenics was lacking extensive evidence, and ultimately Galton "hoped to recast eugenics as a religious doctrine," which was "to be taken on faith without proof." [31]

As the quest to re-brand "eugenics" was under way, a 1943 edition of *Eugenical News* published an article titled "Eugenics After the War," which cited Charles Davenport, a major founder and progenitor of eugenics, in his vision of "a new mankind of biological castes with master races in control and slave races serving them." [32] A 1946 article in *Eugenical News* stated that, "**Population, genetics, [and] psychology, are the three sciences to which the eugenicist must look for the factual material on which to build an acceptable philosophy of eugenics and to develop and defend practical eugenics proposals.**" [33]

In the post-war period, emerging in the 1950s and going into the 1960s, the European colonies were retracting as nations of the 'Third World' were gaining political independence. This reinforced support for population control in many circles, as "For those who benefited most from the global status quo, population control measures were a far more palatable alternative to ending Third World poverty or promoting genuine economic development." [34]

In 1952, "John D. Rockefeller 3rd convened a group of scientists to discuss the implications of the dramatic demographic change. They met in Williamsburg, Virginia, under the auspices of the National Academy of Sciences, and after two and a half days agreed on the need for a new institution that could provide solid science to guide governments and individuals in addressing population questions." [35] That new institution was to become the Population Council. Six of the Council's ten founding members were eugenicists. [36]

According to the Population Council's website, it "did not itself espouse any form of population policy. Instead, through grants to individuals and institutions, it invested in strengthening the indigenous capacity of countries and regions to conduct population research and to develop their own policies. The Council also funded seminal work in U.S. universities and further developed its own in-house research expertise in biomedicine, public health, and social science." [37]

In 2008, Matthew Connelly, a professor at Columbia University, wrote a book called, "Fatal Misconception: The Struggle to Control World Population," in which he critically analyzes the history of the population control movement. He documents the rise of the field through the

eugenics movement:

In 1927 a Rockefeller-funded study of contraception sought “some simple measure which will be available for the wife of the slum-dweller, the peasant, or the coolie, though dull of mind.” In 1935 one representative told India’s Council of State that population control was a necessity for the masses, adding that “it is not what they want, but what is good for them.” The problem with the natives was that “they are born too much and they don’t die enough,” a public-health official in French Indochina stated in 1936.[38]

Connelly’s general thesis was “how some people have long tried to redesign world population by reducing the fertility of other’s.” Further:

Connelly examines population control as a global transnational movement because its main advocates and practitioners aimed to reduce world population through global governance and often viewed national governments as a means to this end. Fatal Misconceptions is therefore an intricate account of networks of influential individuals, international organizations, NGOs, and national governments.[39]

As one review in the Economist pointed out, “Much of the evil done in the name of slowing population growth had its roots in an uneasy coalition between feminists, humanitarians and environmentalists, who wished to help the unwillingly fecund, and the racists, eugenicists and militarists who wished to see particular patterns of reproduction, regardless of the desires of those involved.” The Economist further wrote:

As the world population soared, the population controllers came to believe they were fighting a war, and there would be collateral damage. Millions of intra-uterine contraceptive devices were exported to poor countries although they were known to cause infections and sterility. **“Perhaps the individual patient is expendable in the general scheme of things,”** said a participant at a conference on the devices organised in 1962 by the Population Council, a research institute founded by John D. Rockefeller, “particularly if the infection she acquires is sterilising but not lethal.” In 1969 Robert McNamara, then president of the World Bank, said he was reluctant to finance health care “unless it was very strictly related to population control, because usually health facilities contributed to the decline of the death rate, and thereby to the population explosion.”[40]

A review in the New York Review of Books pointed out that this movement coincided a great deal with the feminist movement in advancing women’s reproductive rights. However, “these benefits were seen by many US family planning officials as secondary to the goal of reducing the absolute numbers of people in developing countries. The urgency of what came to be known as the “population control movement” contributed to a climate of coercion and led to a number of serious human rights abuses, especially in Asian countries.”[41] Dominic Lawson, writing a review of Connelly’s book for The Sunday Times, explained that:

the population-control movement was bankrolled by America’s biggest private fortunes – the Ford family foundation, John D Rockefeller III, and Clarence Gamble (of Procter & Gamble). These gentlemen shared not just extreme wealth but a common anxiety: the well-to-do and clever (people like them, obviously) were now having much smaller families than their ancestors, but the great unwashed – Chinamen! Indians! Negroes! – were reproducing themselves in an irresponsible manner. What they feared was a kind of Darwinism in reverse – the survival of the unfittest.[42]

As the New Scientist reported, while contraceptives and women's fertility rights were being expanded, "For much of the past half-century, population control came first and human rights had to be sacrificed." Further, the New Scientist wrote that Connelly "lays bare the dark secrets of **an authoritarian neo-Malthusian ethos that created an international population agenda built around control.**" One such horrific notion was "the official policies that made it acceptable to **hand out food aid to famine victims only if the women agreed to be sterilized.**"[43] In a sad irony, this seemingly progressive movement for women's rights actually had the effect of resulting in a humanitarian disaster, disproportionately affecting women of the developing world.

In 1968, biologist Paul Ehrlich wrote his widely influential book, 'The Population Bomb,' "in which he predicted that global overpopulation would cause massive famines as early as the 1970s." [44] In his book, he refers to mankind as a "cancer" upon the world:

A cancer is an uncontrolled multiplication of cells; the population explosion is an uncontrolled multiplication of people. Treating only the symptoms of cancer may make the victim more comfortable at first, but eventually he dies - often horribly. A similar fate awaits a world with a population explosion if only the symptoms are treated. We must shift our efforts from treatment of the symptoms to the cutting out of the cancer. The operation will demand many apparent brutal and heartless decisions. The pain may be intense. But the disease is so far advanced that only with radical surgery does the patient have a chance to survive.[45]

The American political elite fully embraced this population paradigm of viewing the world and relations with the rest of the world. President Lyndon Johnson was quoted as saying, "I'm not going to piss away foreign aid in nations where they refuse to deal with their own population problems," while his successor, Richard Nixon, was quoted as saying, "population control is a must ... population control must go hand in hand with aid." [46] Robert McNamara, President of the World Bank and former Secretary of Defense in the Johnson administration, said that he opposed World Bank programs financing health care "unless it was very strictly related to population control, because usually health facilities contributed to the decline of the death rate, and thereby to the population explosion." [47]

Ehrlich was also influential in tracking India's rapid population growth into the 1970s. The rapid population growth in India was attributed at the time to the result of the public health system the British had set up under the colonial government, as well as the fact that, as a means to maintaining a relationship of dependence with Britain, the British had discouraged industrialization in India. As famine was around the corner in India, President "Johnson used food aid to pressure the Indian government to meet its family planning targets," and "By the early 1970s, Bangladesh was spending one third of its entire health budget on family planning and India was spending 60 percent." [48] Further:

[B]etween the 1960s and 1980s, millions of people in India and other Asian countries were sterilized or had IUDs [intrauterine devices], as well as other contraceptives, inserted in unhygienic conditions. Numerous cases of uterine perforation, excessive bleeding, infections, and even death were reported.[49]

The Population Council knowingly sent un-sterile IUDs to India, and in the 1970s, nearly half a million women in forty-two developing countries were treated with defective IUDs that "heightened the risk of infection and uterine perforation," after the United States Agency for International Development (USAID) had "quietly bought up thousands of the devices at a

discount for distribution overseas.” Then sterilization was introduced as a means for “keeping the quotas” on population control in India, as “**sterilization was made a condition for receiving land allocations and water for irrigation, as well as electricity, rickshaw licenses, and medical care.**” A Swedish diplomat touring a Swedish/World Bank population program at the time was quoted as saying, “Obviously the stories... on how young and unmarried men are more or less dragged to the sterilization premises are true in far too many cases.”[50]

In 1967, the UN Fund for Population Activities was created, and in 1971, “the General Assembly acknowledged that UNFPA [United Nations Population Fund] should play a leading role within the UN system in promoting population programmes.”[51] In 1970, Nixon created the Commission on Population Growth and the American Future, known as the Rockefeller Commission, for its chairman, John D. Rockefeller 3rd. In 1972, the final report was delivered to Nixon.

Among the members of the Commission (besides Rockefeller) were David E. Bell, Vice President of the Ford Foundation, and Bernard Berelson, President of the Population Council. Among the conclusions were that, “Population growth is one of the major factors affecting the demand for resources and the deterioration of the environment in the United States. The further we look into the future, the more important population becomes,” and that, “From an environmental and resource point of view, there are no advantages from further growth.” Further, the report warned:

The American future cannot be isolated from what is happening in the rest of the world. There are serious problems right now in the distribution of resources, income, and wealth, among countries. World population growth is going to make these problems worse before they get better. The United States needs to undertake much greater efforts to understand these problems and develop international policies to deal with them.[52]

In 1974, National Security Study Memorandum (NSSM) 200 was issued under the direction of US National Security Adviser Henry Kissinger, otherwise known as “Implications of Worldwide Population Growth for U.S. Security and Overseas Interests.” Among the issues laid out in the memorandum was that, “Growing populations will have a serious impact on the need for food especially in the poorest, fastest growing LDCs [Lesser Developed Countries],” and “The most serious consequence for the short and middle term is the possibility of massive famines in certain parts of the world, especially the poorest regions.” Further, “rapid population growth presses on a fragile environment in ways that threaten longer-term food production.” The report plainly stated that, “there is a major risk of severe damage to world economic, political, and ecological systems and, as these systems begin to fail, to our humanitarian values.”[53]

The memorandum lays out key policy recommendations for dealing with the “crisis” of overpopulation. They stated that “our aim should be for the world to achieve a replacement level of fertility, (a two-child family on the average), by about the year 2000,” and that this strategy “will require vigorous efforts by interested countries, U.N. agencies and other international bodies to make it effective [and] U.S. leadership is essential.” They suggested a concentration on specific countries: India, Bangladesh, Pakistan, Nigeria, Mexico, Indonesia, Brazil, the Philippines, Thailand, Egypt, Turkey, Ethiopia and Colombia.[54]

They recommended the “Integration of population factors and population programs into country development planning,” as well as “Increased assistance for family planning

services, information and technology,” and “Creating conditions conducive to fertility decline.” The memorandum even specifically mentioned that, “We must take care that our activities should not give the appearance to the LDCs [Lesser Developed Countries] of an industrialized country policy directed against the LDCs.”[55] Essentially, NSSM 200 made population control a key strategy in US foreign policy, specifically related to aid and development. In other words, it was eugenics as foreign policy.

In 1975, Indira Gandhi, the Prime Minister of India, declared martial law. Her son Sanjay was appointed as the nation’s chief population controller. Sanjay “proceeded to flatten slums and then tell the residents that they could get a new house if they would agree to be sterilized. Government officials were given sterilization quotas. Within a year, six million Indian men and two million women were sterilized. At least 2,000 Indians died as a result of botched sterilization operations.” However, the following year there was an election, and Indira Gandhi’s government was thrown out of power, with that issue playing a major factor.[56]

Next, however, China became the major focus of the population control movement, which “offered technical assistance to China’s “one child” policy of 1978-83, even helping to pay for computers that allowed Chinese officials to track “birth permits,” the official means by which the government banned families from having more than one child and required the aborting of additional children.”[57] Further:

Even China’s draconian population programs received some support in the 1980s from the US-funded International Planned Parenthood Federation and the UN Population Fund. Before China launched its infamous “One Child Policy,” concerns were being raised about its “voluntary” family planning program. In 1981, Chinese and American newspapers reported that **“vehicles transporting Cantonese women to hospitals for abortions were ‘filled with wailing noises.’ Some pregnant women were reportedly ‘handcuffed, tied with ropes or placed in pig’s baskets.’”**

After 1983, coercion became official Chinese policy. “All women with one child were to be inserted with a stainless-steel, tamper-resistant IUD, all parents with two or more children were to be sterilized, and all unauthorized pregnancies aborted,” according to the One Child Policy. During this time, the International Planned Parenthood Federation and the UN Population Fund continued to support China’s nongovernmental Family Planning Association, even though some of its top officials also worked for the government.[58]

The UN was not a passive participant in population control measures, as it actively supported these harsh programs, and in many cases, rewarded governments for their vicious tactics in reducing population growth:

In 1983, Xinzhong Qian and Indira Gandhi were awarded the first United Nations Population Award to recognize and reward their accomplishments in limiting the population growth in China and India in the previous decade. During the 1970s, officials in these countries had launched extremely ambitious population programs that were supposed to improve the quality of the population and halt its growth. **The measures used were harsh. For example, slum clearance resulting in the eradication of whole urban neighbourhoods and the widespread sterilization of their inhabitants was an important part of India’s ‘Emergency’ campaign. In Delhi, hundreds of thousands of people were driven from their homes in events that resulted in numerous clashes, arrests, and deaths, while a total of eight million sterilizations were**

recorded in India in 1976.[59]

Horrifically, “between the 1960s and 1980s, millions of people in India and other Asian countries were sterilized or had IUDs, as well as other contraceptives, inserted in unhygienic conditions. **Numerous cases of uterine perforation, excessive bleeding, infections, and even death were reported,** but these programs made little effort to treat these conditions, or even determine their frequency, so we don’t know precisely how common they were.”[60]

In the late 1980s, revelations in Brazil uncovered the NSSM 200 in Brazil since its implementation in 1975 under the Ford Presidency. An official government investigation was launched, and it was discovered that, **“an estimated 44% of all Brazilian women aged between 14 and 55 had been permanently sterilized.”** Further, the programs of sterilization, undertaken by a number of international organizations, were coordinated under the guidance of USAID.[61]

At the UN’s 1994 World Population Conference in Cairo, Third World delegates to the conference emphasized the need for development policies as opposed to demographic policies; that the focus must be on development, not population. This was essentially a setback for the radical population control movement; however, it wasn’t one they couldn’t work around. There was still a great deal of support among Western elites and co-opted developing world elites for the aims of population control. As Connelly articulated:

It appealed to the rich and powerful because, with the spread of emancipatory movements and the integration of markets, it began to appear easier and more profitable to control populations than to control territory. That’s why opponents were correct in viewing it as another chapter in the unfinished history of imperialism.[62]

It was around this point that the population control movement, while continuing on its overall aims of curbing population growth of Third World nations, began to further merge itself with the environmental movement. While always working alongside the environmental movement, this period saw the emergence of a more integrated approach to policy agendas.

Environmentalism as Eugenics

Michael Barker extensively covered the connection between the Rockefeller and Ford foundations in funding the environmental movement in the academic journal, *Capitalism Nature Socialism*. As Barker noted, following World War II, the public became increasingly concerned with the environment as the “chemical-industrial complex” grew at an astounding rate.[63] Since Rockefeller interests were heavily involved in the chemical industry, the rising trend in environmental thought and concern had to quickly be controlled and steered in a direction favourable to elite interests.

Two important organizations in shaping the environmental movement were the Conservation Foundation and Resources for the Future, which largely relied upon Rockefeller and Ford Foundation funding, and both conservation organizations had interestingly helped to “launch an explicitly pro-corporate approach to resource conservation.”[64] Laurance Rockefeller served as a trustee of the Conservation Foundation, and donated \$50,000 yearly throughout the 50s and 60s. Further, the Conservation Foundation was founded by Fairfield Osborn, whose cousin, Frederick Osborn, became another prominent voice in

conservation.[65] Frederick Osborn was also working with the Rockefeller's Population Council and was President of the American Eugenics Society.

In 1952, the Ford Foundation created the organization Resources for the Future (RFF), (the same year that the Rockefellers created the Population Council), and the original founders were also "John D. Rockefeller Jr.'s chief advisors on conservation matters." Laurance Rockefeller joined the board of the RFF in 1958, and the RFF got \$500,000 from the Rockefeller Foundation in 1970.[66] The Ford Foundation would also go on to create the Environmental Defense Fund (EDF), the Natural Resources Defense Council (NRDC), and the Sierra Club Legal Defense Fund.[67] McGeorge Bundy, who was President of the Ford Foundation from 1966 until 1979, once stated that, "everything the foundation did could be regarded as 'making the world safe for capitalism'."[68]

Certainly one of the pre-eminent, if not the most prominent environmental organizations in the world is the World Wildlife Foundation (WWF). The WWF was founded on September 11, 1961, by Sir Julian Huxley, the first Director General of the UN organization, UNESCO.[69] Sir Julian Huxley was also a life trustee of the British Eugenics Society from 1925, and its President from 1959-62. In the biography of Julian Huxley on the British Eugenics Society's website (now known as the Galton Institute – a genetics research center), it stated that, "Huxley believed that eugenics would one day be seen as the way forward for the human race," and that, "**A catastrophic event may be needed for evolution to move at an accelerated pace**, as the extinction of the dinosaurs gave the mammals their chance to take over the world. It is much the same with ideas whose time has not yet come; they must survive periods when they are not generally welcome. Like the small mammals in dinosaur times they must await their opportunity."[70]

In 1962, Rachel Carson, an American marine biologist, published her seminal work, *Silent Spring*, which has long been credited with helping launch the modern environmental movement. Her book was largely based around the criticism of pesticides as harmful to the environment and human and animal health. Of particular note, she is seen as being the starting force for the campaign against DDT. Carson died in 1964, but her legacy was set in stone by the emerging environmental movement.

The Environmental Defense Fund was founded in 1967 with the specific aim to ban DDT. Some of its initial funding came from the Ford Foundation.[71] This also spurred the formation of the Environmental Protection Agency (EPA), an official US government agency, in 1970. In 1972, the EPA banned the use of DDT in the United States. Since this time, "DDT prohibitions have been expanded and enforced by NGO pressure, coercive treaties, and threats of economic sanctions by foundations, nations and international aid agencies."[72]

DDT is widely regarded as a carcinogen, and most have never questioned the banning of DDT until understanding the effects of DDT usage beyond the environmental aspect. In particular, we need to look at Africa to understand the significant role of DDT and why we need to re-evaluate its potential usage, weighing the pros and cons of doing so. We must bring in the "human element" and balance that out with the "environmental element" instead of just simply writing off the human aspect to the issue.

The World Health Organization (WHO) said in 2000, that, "malaria infected over 300 million people. It killed nearly 2,000,000 – most of them in sub-Saharan Africa. Over half the victims are children, who die at the rate of two per minute or 3,000 per day," and that, "Since 1972, over 50 million people have died from this dreaded disease. Many are weakened by AIDS or

dysentery, but actually die of malaria." In 2002 alone, 80,000 Ugandans died from malaria, half of which were children.[73] The fact is, that:

No other chemical comes close to DDT as an affordable, effective way to repel mosquitoes from homes, exterminate any that land on walls, and disorient any that are not killed or repelled, largely eliminating their urge to bite in homes that are treated once or twice a year with tiny amounts of this miracle insecticide.[74]

Donald Roberts, Professor of Tropical Public Health at the Uniformed Services University of Health Sciences, explained that, "DDT is long-acting; the alternatives are not," and that, ultimately, when it comes to the issue of poor countries and poor people, "DDT is cheap; the alternatives are not. End of Story." [75]

Richard Tren, President of Africa Fighting Malaria, said that, "In the 60 years since DDT was first introduced, not a single scientific paper has been able to replicate even one case of actual human harm from its use." At the end of World War II, DDT was used on nearly every concentration camp survivor to prevent typhus, and the "widespread use of DDT in Europe and the United States played vital roles in eradicating malaria and typhus on both continents." Further, in 1979, a World Health Organization (WHO) review of DDT use could not find "any possible adverse effects of DDT," and said it was the "safest pesticide used for residual spraying and vector control programs." [76]

However, organizations such as the WHO, United Nations Environmental Program (UNEP), the World Bank, Greenpeace, World Wildlife Fund, and a variety of others still remained adamantly opposed to the use of DDT. While DDT is not outright banned, it is extremely difficult to have it used in places like Africa due to funding. The funding for health care and disease-related programs comes largely from western aid agencies and NGOs, and "The US Agency for International Development [USAID] will not fund any indoor residual spraying and neither will most of the other donors," explained Richard Tren, which "means that most African countries have to use whatever [these donors] are willing to fund (bed nets), which may not be the most appropriate tool." [77]

A Ugandan Health Minister said in 2002 that, "Our people's lives are of primary importance. The West is concerned about the environment because we share it with them. But it is not concerned about malaria because it is not a problem there. In Europe, they used DDT to kill anopheles mosquitoes that cause malaria. Why can't we use DDT to kill the enemy in our camp?" [78]

Michael Crichton, an author and PhD molecular biologist, plainly stated, "Banning DDT is one of the most disgraceful episodes in the twentieth century history of America. We knew better, and we did it anyway, and we let people around the world die, and we didn't give a damn." As author Paul Driessen eloquently explained, the West "would never tolerate being told they had to protect their children solely by using bed nets, larvae-eating fish and medicinal treatments. But they have been silent about conditions in Africa, and about the intolerable attitudes of environmental groups, aid agencies and their own government[s]." [79]

James Lovelock, a scientist, researcher, environmentalist and futurist, became famous for popularizing his idea known as the Gaia hypothesis. He first started writing about this theory in journals in the early 1970s, but it shot to fame with the publication of his 1979 book, "Gaia: A New Look at Life on Earth." The general theory is that the Earth acts as a single

organism, where all facets interact and react in a particular way that promotes an optimal environment on Earth. Thus, the theory was named after the Greek Earth goddess, Gaia. In the opening paragraph of his book, he stated that, “the quest for Gaia is an attempt to find the largest living creature on Earth.”[80] His theory provoked a fair amount criticism within the scientific community, with some referring to it as merely a metaphorical description of Earth processes.[81]

Lovelock has also been known to make wild predictive statements. In 2006, he wrote an article for the Independent, in which he stated that, “My Gaia theory sees the Earth behaving as if it were alive, and clearly anything alive can enjoy good health, or suffer disease,” and that the Earth is “seriously ill, and soon to pass into a morbid fever that may last as long as 100,000 years.”[82]

In 2008, the Guardian interviewed Lovelock, who contended that it was “too late” to do anything about global warming, that catastrophe was inevitable, and that, “about 80%” of the world’s population [will] be wiped out by 2100.”[83] In August of 2009, Lovelock became a patron of the Optimum Population Trust, a British population control organization. Upon his becoming a patron, he stated that, “**Those who fail to see that population growth and climate change are two sides of the same coin are either ignorant or hiding from the truth. These two huge environmental problems are inseparable and to discuss one while ignoring the other is irrational.**” He added, “How can we possibly decrease carbon emissions and land use while the number of emitters and the space they occupy remorselessly increases? When will the environmentalists who claim to be green recognise the truth and speak out?”[84]

Taxes and trades in carbon and carbon credits virtually commodify our atmosphere, so that the very air we breathe becomes property that is bought and sold. A tax on carbon is a tax on life. Since the lifeblood of an industrial society is oil, this requires carbon emissions in order to develop. The restraints on carbon, particularly the notion of trading carbon credits – i.e., trading the ‘right’ to pollute a certain amount – will disproportionately affect the developing world, which cannot afford to finance its own development. Corporations and banks will trade and own the world’s carbon credits, granting them the exclusive right to pollute and control the world’s resources and environment. The carbon trading market could become twice the size of the world oil market within ten years time.[85]

In regards to the Copenhagen Climate talks, which essentially broke down in December of 2009, the real source of this failure lies in a document that revealed the true nature of the negotiations, referred to as the ‘Danish Text.’ The ‘Danish Text’ was a leaked Danish government document which outlined a draft agreement “that hands more power to rich countries,” as, “The draft **hands effective control of climate change finance to the World Bank**” and “would make any money to help poor countries adapt to climate change **dependent on them taking a range of actions.**”[86] In other words, it becomes the new means of exerting “conditionality” upon the developing, and increasingly the developed world. ‘Conditionality’ implying – of course – a restructuring of society along lines designated by the World Bank.

While these are but examples of the influence and shaping of science to mold society and control humanity, much more discussion and debate is needed on these issues. While science can be used for the benefit of mankind, so too can it be used for the control and oppression of humanity. The people who run our societies view us as needing to be controlled, so they redirect the social apparatus into systems of control and coercion.

Science can allow us to understand an idea or organism; but in doing so, it can also allow us to understand how to dominate and control that idea or organism. We must continually engage in a discussion of our changing society to better understand the nature of its changes and how that could affect us both positively and negatively.

If not for the Technological (or 'Technetronic') Revolution, elites would not have access to such powerful means of control; but, simultaneously, people have never had such great access to each other through mass communications and the Internet. So while environmental science can allow us to better understand our environment, something we seem still to be very much an adolescent in accomplishing, it also unleashes an ability, and what's greater - a temptation - to control and shape the environment. Science can be used to both free and imprison the human mind. It is imperative that we approach and discuss the sciences (and all issues) from this perspective, not from a narrow-minded and divisive black-and-white world of 'left' and 'right', of religion or science. We cannot simply view criticism and opposition to social and scientific endeavours as 'backwards', or based on 'religious doctrine'. There are rational reasons and purposes for criticism and debate on all of these issues, and rational positions of dissent.

Issues like climate change are generally divided upon those who 'believe' in climate change, and those who are termed 'deniers', which is a disingenuous and divisive approach to rational debate. It silences the critical scientists, who do not get funding from governments or corporations. It classifies those who dissent as 'deniers', employing rhetoric like that used against Holocaust deniers, whereas the majority of the dissent within the scientific community comes from those who simply see the role of other forces (often natural) in shaping and changing our climate, such as solar radiation. They do not 'deny' climate change, but they dissent on the causes and consequences. Is their opinion not worth hearing? If we are reshaping our entire global political and economic spheres as a result of our supposedly 'collective' perception of this issue - as we certainly are - then is it not of the utmost importance that we hear from other voices, especially those of dissent, in order to better understand the issue?

Merging Man and Machine: The Future of Humanity

Eisenhower warned, "The prospect of domination of the nation's scholars by Federal employment, project allocations, and the power of money is ever present - and is gravely to be regarded," and that, "**we must also be alert to the equal and opposite danger that public policy could itself become the captive of a scientific-technological elite.**"[87]

Bill Joy, a computer scientist and co-founder of Sun Microsystems, who was co-chair of the presidential commission on the future of IT research, wrote an article for Wired Magazine in 2000 entitled, "Why the Future Doesn't Need Us." Joy explained the possibilities in a technological society of the near future, that "new technologies like genetic engineering and nanotechnology were giving us the power to remake the world." One startling development in the world is that of robot technology and its potential impact upon society. Joy explains:

Accustomed to living with almost routine scientific breakthroughs, we have yet to come to terms with the fact that **the most compelling 21st-century technologies - robotics, genetic engineering, and nanotechnology - pose a different threat than the technologies that have come before.** Specifically, robots, engineered organisms, and nanobots share a dangerous amplifying factor: **They can self-replicate.** A bomb is blown

up only once – but one bot can become many, and quickly get out of control.[88]

Joy explains that while these technologies can, and consistently are promoted and justified in the name of doing good (such as curing diseases, etc.), **“with each of these technologies, a sequence of small, individually sensible advances leads to an accumulation of great power and, concomitantly, great danger.”** Joy ominously warns that:

The 21st-century technologies – genetics, nanotechnology, and robotics (GNR) – are so powerful that they can spawn whole new classes of accidents and abuses. **Most dangerously, for the first time, these accidents and abuses are widely within the reach of individuals or small groups. They will not require large facilities or rare raw materials. Knowledge alone will enable the use of them.**

Thus we have the possibility not just of weapons of mass destruction but of knowledge-enabled mass destruction (KMD), this destructiveness hugely amplified by the power of self-replication.

I think it is no exaggeration to say we are on the cusp of the further perfection of extreme evil, an evil whose possibility spreads well beyond that which weapons of mass destruction bequeathed to the nation-states, on to **a surprising and terrible empowerment of extreme individuals.**[89]

In other words: we are entering an era faced with the “scientific dictators” of Huxley’s nightmare vision in ‘Brave New World’. Joy explained that by 2030, “we are likely to be able to build machines, in quantity, a million times as powerful as the personal computers of today.” Thus:

As this enormous computing power is combined with the manipulative advances of the physical sciences and the new, deep understandings in genetics, **enormous transformative power is being unleashed. These combinations open up the opportunity to completely redesign the world**, for better or worse: The replicating and evolving processes that have been confined to the natural world are about to become realms of human endeavor.[90]

Joy examined the transformative nature of robotics, as an intelligent robot may be built by 2030, “And once an intelligent robot exists, it is only a small step to a robot species – to an intelligent robot that can make evolved copies of itself.” Further, “A second dream of robotics is that **we will gradually replace ourselves with our robotic technology, achieving near immortality by downloading our consciousnesses.**” Joy further warns of the potential for an arms race to develop in these technologies, just as took place in the nuclear, radiological and biological weapons of the 20th century.[91]

Joy aptly explained that in the 20th century, those technologies were largely the products of governments, whereas in the 21st century, the new technologies of genetic engineering, nanotechnology and robotics (GNR), are the products of corporations and capitalism. Thus, the driving force is that of competition, desire, and the economic system. Hence, there is far less regulation and discussion of these new technologies than there was of the 20th century technologies, as the new technologies are developed in privately owned labs, not public. Joy often quotes a passage from Kaczynski’s Unabomber Manifesto regarding a future dystopia, which Joy feels has “merit in the reasoning.” In the event that human control over machines

is retained (as opposed to the machines taking over):

[C]ontrol over large systems of machines will be in the hands of a tiny elite – just as it is today, but with two differences. **Due to improved techniques the elite will have greater control over the masses;** and because human work will no longer be necessary the masses will be superfluous, a useless burden on the system. **If the elite is ruthless they may simply decide to exterminate the mass of humanity. If they are humane they may use propaganda or other psychological or biological techniques to reduce the birth rate until the mass of humanity becomes extinct, leaving the world to the elite.**

Or, if the elite consists of soft-hearted liberals, they may decide to play the role of good shepherds to the rest of the human race. They will see to it that everyone's physical needs are satisfied, that all children are raised under psychologically hygienic conditions, that everyone has a wholesome hobby to keep him busy, and that anyone who may become dissatisfied undergoes "treatment" to cure his "problem." Of course, **life will be so purposeless that people will have to be biologically or psychologically engineered** either to remove their need for the power process or make them "sublimate" their drive for power into some harmless hobby. **These engineered human beings may be happy in such a society, but they will most certainly not be free. They will have been reduced to the status of domestic animals.**[92]

A horrifying vision indeed; but one which builds upon the ideas of Huxley, Russell and Brzezinski, who envisioned a people who – through biological and psychological means – are made to love their own servitude. Huxley saw the emergence of a world in which humanity, still a wild animal, is domesticated; where only the elite remain wild and have freedom to make decisions, while the masses are domesticated like pets. Huxley opined that, **"Men and women will grow up to love their servitude and will never dream of revolution. There seems to be no good reason why a thoroughly scientific dictatorship should ever be overthrown."**[93]

We Can Have a Scientific Dictatorship, or...

We can create an alternative. We use, strengthen, mobilize, decentralize, and mobilize the global political awakening into a global movement of people not simply politically aware, but politically active and engaged. A world where people do not simply observe the apparatus of political, economic and social power influencing their lives; but in which the people actively seek to change it to better suit their lives and their freedom. We need to understand each other better; but to do that, we cannot view each other through the harsh and deceptive lens of power.

To understand each other, we must know each other. People must communicate with one another around the world; ideas must be exchanged between people and discussed, debated, and decided upon; the people must determine their own futures. Take the elites out of the equation: if you do not want them to dominate your lives, do not give them the power to do so. Talk to each other and determine your own polities, economies and societies. Do not entrust dying ideas and diseased institutions to determine your future for you.

The tools and systems of social control are vast and evasive; they penetrate the very psychology and biology of the individual. The elite feel that they are entrusted – due to their

supposed 'innate' superior intelligence and specialization – to control society and reshape it as they see fit, to actively mold and construct public opinion and ideas. They have a belief that people are essentially irrational emotional beings, and that they must be controlled by an elite or else the world would be in chaos. This is what underpins the ideas of 'stability' and 'order'. The state has been used to fight every progressive form of change that society has ever developed for its betterment: women's rights, racial rights, civil rights, the anti-war movement, gay rights, etc. Initially, the impulse – the immediate reaction of the state – is to oppress social movements and to suppress human freedoms. This approach often leads to a situation in which social movements are only accepted by the state when they are co-opted by the state or powerful economic forces, which then exert their influence over the state to alter the policy.

If we gain stability and order at the cost of our very humanity, is it worth it? Do we really need this eternal guidance, which has been constant through almost all of human history, to treat the human species as if it was in a constant state of adolescence, never quite prepared to make its own decisions or go out in the world on its own? Well it is time for humanity to grow up, leave the strange comfort of mental authoritarianism. The strive for human autonomy has only just begun; only now is all of humanity politically awakened; only now – and never before – has all of known humanity had such a great and perfect opportunity to remake the world, retake power, re-imagine individuality and revitalize freedom.

Our world is governed not by a conspiracy, but by ideas: ideas of power, money, the state, military, empire, race, religion, sex, gender, politics and people. The only challenge to those ideas, are new ideas. There are roughly 6,000 members of the 'global elite,'[94] there are over 6.8 billion people in the world. That sounds like a lot of potential for new ideas. The greatest resource for the future of humanity is not in the 'control' of humanity, which is doomed to ultimate failure, but for the release and encouragement of the human mind and spirit.

People can understand the science and mechanics of the brain, the functions of psychology, the ability of human strength; but still, today, we do not know how all that biology can create Beethoven's 9th Symphony. Humanity is still very much a mystery to humans, and it would seem likely that the best answers to the questions of 'how should we live?' and 'how should our societies function?' are best answered with the bigger question of 'why are we here?'

If the purpose of people and humanity is to consume and dominate, then our present situation seems only natural. If we were meant for more, then we must become more. If we were meant to be free, we must become free. Ideas are powerful things: they can build empires, and collapse them just as easily.

In 1967, Dr. Martin Luther King delivered one of his most moving and important speeches, "Beyond Vietnam," in which he spoke out against war and empire. He left humanity with sobering words:

I am convinced that if we are to get on the right side of the world revolution, we as a nation must undergo a radical revolution of values. We must rapidly begin the shift from a "thing-oriented" society to a "person-oriented" society. When machines and computers, profit motives and property rights are considered more important than people, the giant triplets of racism, materialism, and militarism are incapable of being conquered.[95]

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