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EUGENICS AND SOCIAL ORDER IN
ALDOUS HUXLEY'S *BRAVE NEW WORLD* AND
MARGARET ATWOOD'S *ORYX AND CRAKE*



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JUNE 2004

EUGENICS AND SOCIAL ORDER IN
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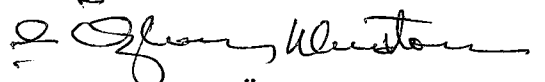
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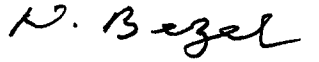
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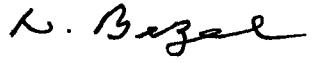

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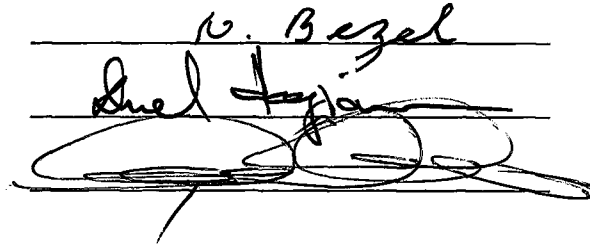

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ABSTRACT

The scientific and industrial revolution of the nineteenth century has led to urbanization, over-organization and mass-production. These changes had dramatic effects on the lives of workers. They were regarded as the part of a machinery to run the factories. Efficiency and progress were the catch-phrases of the era. Eugenics, an old idea which can be traced back to Spartans, was revived. The principles of the Theory of Evolution were applied to form a theory of better human breeding. This thesis is both a summation of the origin and nature of the eugenics movement in Britain and its reflections in literary utopias and dystopias. Aldous Huxley's *Brave New World* and Margaret Atwood's *Oryx and Crake*, which are reactionary dystopias, have been analysed in context to their involvement with eugenics to form the social order in their respective societies.

The positive aspect of the application of eugenics as a social movement and utopian theme for the creation of ideal societies can easily be nullified by the coercive manipulations of those in power. In the chosen works this possibility and its disturbing consequences have been examined through transformed complex worlds created by the literary imagination of both authors.

ÖZ

Ondokuzuncu yüzyılda yaşanan bilimsel ve endüstriyel devrim, kentleşmeye, örgütsel karmaşıklığa ve seri üretime yol açmıştır. Bu değişikliklerin çalışanlar üzerindeki etkisi sarsıcı oldu. Fabrikaların çalışmasını sağlayacak makinelerin bir parçası olarak değerlendirildiler. Dönemin kilit sözcükleri etkinlik ve ilerlemeydi. Spartalıları kadar izi sürülebilen eski bir fikir olan öjenik yeniden gündeme geldi. Evrim Teorisinin ilkeleri daha iyi bir insan ırkı yetiştirmeye yönelik bir teori oluşturmak için kullanıldı. Bu tez hem Britanya'daki öjenik hareketin kökeni ve doğasının hem de bu hareketin yazınsal ütopya ve distopyalara yansımalarının bir özetidir. Tepkisel distopyalar olan Aldous Huxley'nin Cesur Yeni Dünya'sı ve Margaret Atwood'un Oryx ve Crake'inde her birinin kendi toplumlarındaki sosyal düzenin oluşmasında öjenik ilişkisi incelenmiştir.

Sosyal reformlarda ve ideal toplumların yaratılmasında ütopyik bir tema olarak öjenik uygulamaların olumlu yanları iktidarın baskıcı manipülasyonlarıyla kolaylıkla etkisini yitirebilir. Seçilmiş eserlerde bu olasılık ve onun rahatsız edici sonuçları her iki yazarın da yazınsal imgeleminin oluşturduğu dönüştürülmüş karmaşık dünyalar aracılığıyla incelenmiştir.

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CHAPTER I

INTRODUCTION

When the Darwinian Revolution, so to speak, shook the fundamentals of the faith of the Western man in his place in nature and universe, which had previously been superior to any other living organism, it abolished man's supremacy but promised to fulfil something in return for the loss it created. It promised a new morality based on the idea of progress and evolution on social, historical, political and biological issues. It set out a simple postulate that could be used to extrapolate any justification, reassurance or pretext that seemed relevant to any subject from colonization to eugenics.

Eugenics, baptized by Francis Galton, was a revival of the Platonic and Spartan traditions of breeding superior men and women from the best of the stock who would be the rulers and defenders of the state. Its scientific bases were still inadequate for any scheme other than to encourage the reproduction of the satisfactory groups (positive eugenics) and to discourage the reproduction of unsatisfactory groups (negative eugenics). Yet even with the limited knowledge, the eugenicists could come up with detailed social programs that involved compulsory sterilization, a eugenic charity system, segregation, marriage restrictions and the now hushed-up lethal chambers.

Even Thomas Henry Huxley, the man known as “Darwin’s Bulldog” for his defence of the Theory of Evolution, had to protest against the various applications of Darwinism on the ground that the fittest implied often had a connotation of best about which hangs a moral flavour, a value judgement even though the fittest in the nature depends upon conditions, and thus, what had been expressed as ethics of evolution ought to be called as the evolution of ethics where a set of moral sentiments prevailed over fact and science.

The “fit” for any eugenic theme may be any group of people with desired abilities such as athletic and mental capability, beauty or handsomeness, belonging to a social class, being of a certain race or nationality, practising a certain religion, fitting in a society. Likewise “the unfit” of any eugenic theme may be any group of people who lack the desired abilities of the fit. Thus the Jews were the unfit in the Nazi Germany, the paupers in Britain and the criminals, blacks and women in the USA.

Eugenics was one of the most popular social movements during the first decades of the twentieth century. Even though the term itself was a victim to the abhorrence of the genocide, the idea that accompanied it has lurked in the collective consciousness, redefined with different terms, techniques and new possibilities since the science of genetics has made a spectacular progress during the second half of the twentieth century.

This study aims to highlight the eugenic themes in two literary works written in an interval of seventy-one years. The first one is Aldous Huxley’s dystopia, *Brave New World*, written in 1932. It was written during a time when

eugenics was fashionable both as a social movement and literary theme for creating utopias. Being the grandson of the man dubbed as “Darwin’s Bulldog”, Aldous Huxley presents a multi-dimensional view of a future platonic society realised scientifically. The second literary work is Margaret Atwood’s dystopia, *Oryx and Crake* written in 2003. It presents a future that is awesome and bleak where the powers of science and scientific enterprises have taken over a civilization that has lost its touch with letters, humanities and politics. The world has become the laboratory of profit-oriented scientists, nature their playground, species their fairground attractions, living in their isolated but privileged compounds protected efficiently from the pleeblands where the ordinary people live. A eugenic enterprise, carried out to ensure to subdue remaining social resistance by designing a new breed of humans, gets realized far quicker than the entrepreneurs foresaw.

Although both works are written as future fantasies, it is from their present times that such fantasies are derived. Thus a eugenic history of the twentieth century is essential to understand the applications of the authors and the social order they try to set up or parody. For eugenics has never been a purely scientific field of study but has always carried a value judgement for those who were in power to use/abuse it. A study of eugenics and its social implications as reflected in *Brave New World* and *Oryx and Crake* are beneficial because it provides an insight to modern world where philosophy and science are breaking more apart each day.

Chapter two of this study, will start with a brief introduction on the major social and scientific changes taking place from Victorian Britain on, and continue

with the Theory of Evolution and its further use as an instrument in explaining social phenomena. It then will follow through how the first half of twentieth century witnessed the applications of social Darwinism to justify positivism, middle-class values, protestant ethic and the laissez-faire capitalism. It will depict eugenics, as an attempt to maintain the status of the middle classes and the liberal state in which that class flourished in. The chapter then will trace out the pattern of “positivism”, “progressive development” and “utilitarianism” which were the key concepts of the eugenics movement during the first half of the twentieth century. The chapter will finally refer to “new eugenics” and display the similarities and differences between the “old” and the “new” eugenics.

Chapter three of this paper will focus on utopian eugenics depicted through works of Plato, H.G. Wells, Bernard Shaw and Nietzsche. It will examine how these works display initial ideas that are relevant to the pattern of positivism, progressive development and utilitarianism. It will then reveal how Plato and H.G. Wells advocate the necessity of a functional class system while Shaw and Nietzsche advocate the necessity of breeding “supermen”. Eugenics will be analyzed in context with the realization of their ideal states. These ideal states will be presented as a form of meritocracy in Wells and a form of aristocracy in Shaw. Selected passages from these works will display the level of infatuation with eugenics as means of finalizing the perfect world.

Chapter four of this paper will discuss the application of eugenics in Aldous Huxley's *Brave New World*, pointing out to its Platonic and Wellsian perception, how stability is sustained by applied eugenics, sleep-conditioning and drugging. The social order created by the eugenics will be described in detail

while pointing out to its relation with the consumerist society. It will also depict how in a scientific society, pure science can be forsaken for the continuance of stability. Wellsian and Shavian eugenics will be questioned in terms of their finalizing a perfect world.

Chapter five of this paper will discuss the application of eugenics in Margaret Atwood's *Oryx and Crake*, pointing out to reduction of man and other species to proteins and genes, servitude of science to power and money, the creation of a perfect breed of new people whose humanness has been accentuated or severely abolished according to the means. Then the creation of a new social order will be examined in context with eugenics.

CHAPTER II

THE EMERGENCE AND ADVANCE OF EUGENICS

In order to fully understand the fundamentals of the eugenics creed that played a major part during the first half of the twentieth century, it is necessary to supply a brief survey of the period of transition from the Late Victorians to the Edwardians.

Queen Victoria ruled England from 1837 to 1901. The times witnessed Britain becoming a major power through her industrial superiority chiefly maintained and bettered by discoveries in science and technology. The scientific discoveries and inventions of the nineteenth century such as telegraph and steam power, were mostly realized in Britain and many of them were applied to industry and communication to boost up the economy. Mid-century Britain was the leading power in the world. Her imperial policies and industrial pioneering paid off to a great extent. The Great Exhibition, a monument to Britain's grandeur was held in London in 1851. But the effects of ruthless industrialization lurked in the background. The "Crystal Palace" rose only a distance away from the slums of London.

Apart from this, in natural sciences too, Britain was at its summit. Epoch-ending books followed, completing one another and shaking the metaphysical roots of the society. The three volumes of Sir Charles Lyell's *Principles of*

Geology (1830-1833), and Robert Chambers' *Vestiges of the Natural History of Creation* (1844) had already established a feeling of scepticism towards religion and had tried to reconcile it with a belief in historical progress, namely, evolution. In Benjamin Disraeli's novel, *Tancred* (1847), in allusion to Chambers' idea of the "crowning race" and Lyell's "fossils", the heroine chatters as follows:

You know, all is development. The principle is perpetually going on. First there was nothing, then there was something; then, I forget the next, I think there were shells, then fishes; then we came: let me see, did we come next? Never mind that; we came at last. And the next change there will be something very superior to us, something with wings. Ah! that's it: We were fishes, and I believe we shall be crows. But you must read it. . . . Oh! but it is all proved Everything is proved: by geology, you know. You see exactly how everything is made; how many worlds there have been; how long they lasted; what went before, what comes next. We are a link in the chain, as inferior animals were that preceded us: we in turn shall be inferior; all that will remain of us will be some relics in a new red sandstone. This is development. We had fins; we may have wings (Disraeli qtd. in Roppen 64).

The Victorian era can be defined as the "era of debates". There were too many changes in the society. The industrialization broke the link from the traditional agricultural society and advances in science challenged the metaphysical adherence to religion. Those who supported the traditional values and creeds fought on against the advocates of the new creed, that is, progress. The most remarkable controversial dualities included vitalist versus mechanist, nature versus nurture, luxury versus asceticism, and creationist versus evolutionist. The hardness of the times invoked nostalgia for Hellenistic or medieval times. Roppen has suggested that during the Victorian era

three currents of thought conflued [sic] visibly in the English panorama: [Jeremy]Bentham's doctrine of Utility, [August] Comte's Positivism and [Charles] Darwin's as well as [Jean-Baptiste] Lamarck's theories of Evolution (41).

All three of them together composed a progressive idealism in which utilitarianism was a benchmark for evaluation, positivism a quasi-religion with man as the object of worship instead of a divine power, and evolution, an exciting and rewarding anticipation of future against the present times. Thus the idea of evolution had already been quite popular during the mid-century, before the publication of *Origin of Species*. What Darwin had done was to bring different aspects of various ideas together in synthesis with “natural selection” acting as an agent of combination in forming a coherent model. Those various ideas were as follows:

From William Paley’s *Natural Theology* Darwin derived the assumption of perfect adaptation of organism to environment and the optimistic theodicy that Nature’s cruelty was but a small price to pay for tomorrow’s progress. From [Thomas] Malthus’s *Essay on the Principle of Population* Darwin derived his perception of population pressure and struggle in nature, unmitigated by the moral restraint found in human societies. From [Herbert] Spencer, A.R.Wallace and Walter Bagehot, Darwin borrowed arguments for the evolution of human mental and moral traits by natural selection. From his cousin, Francis Galton, Darwin gained an awareness of the alleged “survival of the unfit in contemporary social life” (Kaye 15).

The insertion of natural selection to the overall theory implied the idea of a process that decided, with a ruthlessness and even randomness, the destiny of the living organisms. All forms of life had to struggle for an existence that only the best or the “fittest” achieved. Up to then the Theory of Evolution had somehow been a general idea that acquired (Lamarckian hypothesis which was rejected) or possessed traits were inheritable. Now it was put into a pattern of perpetual evaluation and elimination. The existence of such a pattern suggested different interpretations. For some it was one of the complexities of God’s strange ways. For others natural selection referred to a basic postulate that could

be applied to explain all kinds of phenomena from basically organic to any subject like history and economy. Natural selection could then be replaced artificially by the will of man because after all as Disraeli's heroine had exclaimed "it was all proved". (See page 6 of this study) The decision on the term natural selection emphasises the origin of these ideas.

Darwin chose the term "natural selection" in order, as he said to "mark its relation to man's power of selection" in producing new breeds of plants and animals. There was, of course, no selection in nature. Selection implies intelligent choice, of which nature knows nothing. What Darwin called natural selection might better have been called differential reproduction through the luck of the hereditary draw (Greene 34).

The analogy between nature and man having similar powers in producing new breeds put them on an equal level of action where if necessary they could act interchangeably. Necessity had mothered quite a number of inventions in history and it was only too plausible it would mother this one as well. Darwin's Theory of Evolution was the missing link to the realization of final stage of August Comte's Law of Progress; positivism where all phenomena would be scientifically explained and understood. Darwin, himself, had encouraged and motivated his readers to take up his theory in all considerable fields of facts suggesting that

He who will go thus far, if he find on finishing this treatise that large bodies of facts, otherwise inexplicable, can be explained by the theory of descent, ought not to hesitate to go further (Darwin 188).

Evolution was synonymous with progress and development during the second half of the nineteenth century. Even though the Theory of Evolution explained the descent of all existing life forms, that is, biological organisms, as modified from earlier ancestors, it was adapted to explain the descent of existing

political, social and economic structures as well. Since according to Darwin, historically, all life forms descended to better and more complex organisms, Darwin's supporters defended that the existing over-organization, urbanization, industrialization, laissez-faire capitalism, imperialism were the better and more complex systems that had descended from simple, dogmatic, savage and inefficient systems. Darwin's principles applied to other domains of study were termed "social Darwinism". From the very beginning social Darwinists focused their attention on the current social order, which they thought was better in comparison with the past because it had been set up by people who had the upper hand in a race for survival. They concluded that this race of survival ought to take place under full competition for otherwise the "fit" and the "unfit" would survive together which meant for them a regression from human progress. According to defenders of social Darwinism

human society had always been a battleground for competing individuals and races in which the fittest survived and the unfit were cruelly eliminated; and, for sake of human progress, this struggle for existence must be allowed to continue unchecked by governmental intervention or social reform (Kaye 12).

Because of such viewpoints, Darwinism served the interests of many different groups. It was a useful instrument for the defence and justification of current situations. It could be used against other countries on a grander scale, as in the case of imperialism. Or it could be used against other groups of classes within the same society. The same principles applied to all.

Victorian Britain also went through a series of changes in social life. Aristocracy lost almost all of its privileges while there were new fortunes made

from industry, trade, military careers and overseas enterprises. A stronger and livelier middle class emerged on the scene whose values would form the basic tenets of the eugenics movement. Urbanization changed the distribution of the population through labour mobility. People had to come to cities to earn a living. Thus the mass societies were formed.

Towards the end of Victorian era, the lower classes benefited from certain reforms and rights such as the Factory Act, Mines Act, Education Act and extended suffrage. The last development meant more involvement of the working classes in elections. These developments coincided with the relative decline of Britain, and social Darwinists tried to come up with diagnoses and remedies in which the middle class values affected their judgments.

This decline was relative, because economy of the Britain kept on growing but its rivals grew faster. By the end of the century, the United States of America and Germany had left Britain behind in respect to production and growth. Furthermore the Boer War, an attempt to recapture the glory of the past by conquering the control of South African gold mines, did not end as fast and smoothly as Britain had forecasted. The social changes such as unionism, incoming immigration from the Commonwealth countries and Russia and the Labour Party opposition troubled the middle classes to such an extent that the foundations of laissez-faire liberalism began to be questioned as one of the reasons of decline. Edwardian era witnessed a large number of reactionary movements coming from middle classes such as

Arnold White's militarism, the Edwardian popular leagues' demands for conscription and defence of empire, Lord Willoughbe de Broke's

“National Toryism”, Oscar Levy’s Nietzschean critique of an effete western ethic, Anthony Ludovici’s call for a “masculine renaissance”, Karl Pearson’s and W.C.D. Whetham’s equation of eugenics with anti-alienism and anti-feminism, A.H. Lane’s anti-semitism, William Sanderson’s vision of an organic society dedicated to “service”, Viscount Lympington’s rural revivalism - all of these are, singly, elements of a reactionary, sometimes revolutionary-reactionary, ideology (Stone 3).

The Edwardian Britain was troubled by the radical movements marking the period as well as by the sensitivity regarding the national pride. While nationalism surged to a climax, collectivist policies became attractive. This nationalistic mood affected the average Briton who felt threatened about his position in the society, his masculinity, his racial purity and his future prospects in, what he deduced to be, a declining Britain. It was the next blow after the crumbling of his place in the universe, as a man. The Theory of Evolution had placed him in line with the animal kingdom but there was always the supremacy of the white man over the more primitive people which was a comfort. But a time had come when there were suddenly too many white men around asking and pressing for better living and working conditions which meant a higher portion of national income would be allocated to them. The average middle class member of Britain felt that he had to devise strategies and methods which while reversing the national decline would also maintain his higher place of the Victorian times, against the egalitarian policies of the Labour party and the Unionists. For the relative decline combined with population growth and increasing immigrants caused unemployment and increased social reform costs. It is a general assumption that,

When “population surpasses the means of existence,” the force of necessity calls forth greater “division of labour, exchange, higher social organization” . . . and a reduction in political freedom (Kaye 32).

The social Darwinists who were against the governmental intervention or social reform gradually stopped defending the former because they needed and sought out governmental intervention to ensure their positions against the lower classes. They wanted principles of Bentham's doctrine of utilitarianism applied in defining social policies rather than the humanist principles. The economic decline and massive reactions from the intellectuals and working classes led the social Darwinists seek out ways to restore the laissez-faire capitalist state with middle class as the ruling power instead of the social welfare state Britain was slowly turning into. One of the most popular solutions they came up with was eugenics, based upon the three current ideas of thinking that marked the period, as suggested by Roppen.(See page 6 of this study)

Roppen's suggestions of positivism, evolution and utilitarianism are repeated through the eugenics movement and its literary representations in the *Brave New World* and *Oryx and Crake* as will be discussed later.

Eugenics set up a doctrine of utilitarianism in which the positivistic tendencies were strengthened by regarding men as the breeders. Individuals with desired abilities useful to the state were encouraged to reproduce, and the importance of future generations in favour of the present ones were emphasized. It was in the highlight of such social and political conditions that the eugenics made its emergence.

Charles Darwin's *Origin of the Species* published in 1859, concentrated mainly on plants and animals leaving the mankind outside the frame of the work. When he published the *The Descent of Man* twelve years later, the term and idea

of eugenics, coined and defined by his cousin Francis Galton, based on Darwin's Theory of Evolution, had already become to be used frequently. Darwin alluded to Galton in his book and supported and echoed his ideas on the reproduction of mankind.

[W]e now know, through the admirable labours of Mr. Galton, that genius which implies a wonderfully complex combination of high faculties, tends to be inherited; and, on the other hand, it is too certain that insanity and deteriorated mental powers likewise run in families (qtd. in Kevles 20).

Galton, affected by Darwin's ideas had surmised a similar theory which when applied would attribute to the progress of a whole nation. He introduced this in his book, the *Hereditary Genius*, published in 1869. In summary, he observed that the more prudent and reasonable people in the society tended to marry late in age and have children only if they could comfortably support them while the reckless and careless people married at early ages and had far more children than they were able to support properly. To remedy this, Galton proposed a selective reproduction method, the eugenics. He had coined the word by bringing together **eu** (good) and **gens** (to reproduce) from Greek. He elaborated further;

We greatly want a brief word to express the science of improving stock, which is by no means confined to questions of judicious mating, but which, especially in the case of man, takes cognizance of all influences that tend in however remote a degree to give to the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable than they otherwise would have had. The word eugenics would sufficiently express the idea (Galton 17).

From the very beginning, the eugenics discourse attempted to enforce a social program for the "more suitable" group to multiply more and for the "less

suitable” group actually to be prevented from multiplication. In an era where the contraceptives were not yet introduced, the latter meant, restriction of marriages, segregation and sterilization. Moreover, in the determination of the “less suitables” of the doctrine, class-consciousness played a major role and it was always the poor who had to be prevented from multiplying. The case of eugenics was another sibling of social Darwinism, a wishful thinking accepted as fact. As Stone has put forward

what characterized British Eugenics had been its stress on class: Social class sometimes was put forward as a criterion of eugenic value; and the terms were sometimes used such as “lower classes”, “riff-raff”, “dregs”, which seemed to imply a contempt for certain sections of the poor (99).

Galton’s major worries were over British race which he believed to be declining and no longer able to raise geniuses. When Galton began to articulate his ideas, the science of genetics was still at its crawling stage. Gregor Mendel’s Laws were not to be re-discovered until 1900. Galton derived his models from plant and animal breeders, the same source that Plato had employed over two thousand years ago. Galton and his contemporaries believed in various theories of inheritance. Some, including Darwin, believed in “pangenesis” which meant that inheritable qualities were collected within a bud to which flowed reproductive agents from all over the body. Lamarck’s theory was very popular which claimed that acquired traits were transmitted which went as far to suggest that a man with an amputated leg would have a child with the same leg missing. Galton and Pearson supported August Weismann’s theory of “germ plasm” which advocated the presence of a seed-like material found in the body which functioned as a hereditary makeup of a population or individual organism, often used

interchangeably with “gene pool”. According to Weismann, the germ plasm did not change during transmission. It was carried throughout the ages in constant forms. It only changed when it was mixed by gene pools from other races. This idea was parallel to Galton’s claims of a decline in the race. Galton and his contemporaries regarded the germ plasm of Britain as an accumulated asset which was declining due to relative decline in “good” germ plasm, that is, the ratio of the middle class germ plasm in accumulated gene plasm was falling down. Since the bad germ plasm was growing relatively faster, if necessary precautions were not taken, the British race with its preferable traits would be lost beyond recovery. Britain had to preserve her germ plasm from declining. Karl Pearson, the most devoted eugenicist of his times had expressed that

To no nation is a high human breed more necessary than to our own, for we plant our stock all over the world and lay the foundation of the dispositions and capacities of future millions of the human race (qtd. in Stone 105).

These imperialist and racial motives ran parallel with the social and economic motives. In 1907, Galton and his followers founded “The Eugenic Society” to advocate the necessity of a eugenic society. Galton had put forth his principles of action in three stages.

- (1) It must be made familiar as an academic question, until its exact importance has been understood and accepted as a fact.
- (2) It must be recognized as a subject whose practical development deserves serious consideration.
- (3) It must be introduced into the national conscience, like a new religion (Galton).

Galton and his contemporaries supported positivism because they did not believe in equality of men and sought scientific confirmations to account for this

natural inequality. Social and political events hardened the prejudice against religion too.

Galton's wish for eugenics to be established like a quasi-religion could not be enforced on the Catholics due to its racial and class-oriented basis which contrasted with the fundamentals of Catholicism. Pro-lifer (anti-abortionist) attitudes of the Catholics did not comply with schemes of negative eugenics.

Thus the Jewish immigrants and Irish Catholics were disturbing factors. The Catholic Emancipation of 1829 had allowed the Catholics the chance to take part in the government and the parliament, which up to then had been under the monopoly of the members of the Anglican Church. Galton supported and respected Protestant values which he believed to have contributed to Britain's growth. The Huguenots who had immigrated to Britain were able men who had brought their crafts and germ plasms for a more advanced Britain. He thought that no more Huguenots would come to the rescue of the stock as they once did and strict control over the marriages would raise the inborn traits of the race.

This is most obvious in case of T.H. Huxley, the man dubbed as "Darwin's Bulldog" while commenting that

In addition to the truth of the doctrine of evolution, indeed one of its greatest merits in my eyes, is the fact that it occupies a position of complete and irreconcilable antagonism to that vigorous and consistent enemy of the highest intellectual, moral and social life of mankind - the Catholic Church (qtd. in Roppen 30).

Another current of thought effective in reducing the religion further was Friedrich Nietzsche's holistic disgust with Christianity, condemning it to be a religion based upon a vice, that is, pity. Nietzsche saw pity as the sole reason of

the decline in Western Civilization. This attitude attracted many eugenicists who saw Christianity as an obstacle in the way of a rational state. As one of them purported that:

From the standpoint of all Darwinian philosophy of history, we now regard Christianity as an artful device for enabling inferior human beings to maintain themselves in the struggle for existence, a device analogous to, and serving the same purpose as, the ink of the cuttlefish, the venom of the snake, the stench of the skunk, the various forms of mimicry(Thomas Cotton quoted in Stone 67).

According to Galton, human inheritance involved both physical and mental traits, men were not equal. There were superior individuals with the right traits who ought to be encouraged to multiply among themselves and lesser individuals with the wrong traits who ought to be kept away from reproduction lest they should pollute the racial stock. There were two major crises according to Galton. One was the physical fitness of the British race which could now be measured in the international arena by the Olympic Games results. Furthermore, during the Boer war recruitment, there was a high rejection rate of volunteers due to physical unfitness.

But mental fitness of the British stock also troubled Galton. He had set out to with a copy of "Dictionary of Men of Time" and other such hand books.

From these biographical encyclopedias Galton drew a sample population, spanning two centuries, of distinguished jurists, statesmen, military commanders, scientists, poets, painters and musicians (Kevles 3).

Galton spent so much time on figures and charts to prove his theories that ironically it was the science of statistics that he pioneered which would turn into a major field of study in the twentieth century. His studies manifested that certain

intellectual traits seemed to be hereditary and that they belonged to middle and upper classes. So unless measures were taken to improve the human stock of Britain, it would continue to deteriorate. Galton devoted all his energies and his fortune (he did not have any children) for the eugenic cause. His another goal, eugenics being accepted as an academic question, was possible with the fund he set up.

Karl Pearson was the first to take the Galton Eugenics Professorship position and while he was working busily, gathering data and analysing them, the Eugenics Society was publishing pamphlets, organizing international conferences and popularizing its cause. The society was formed of middle-class members who shared Galton's concerns about the declining race. However they supported "negative eugenics" instead of Galton's initial idea of "positive eugenics". Eugenics could be applied either positively (encouraging parents who are above average in certain traits to have more children) or negatively (discouraging parents who are below average in certain traits to have less children). These required different action plans.

Steps to eliminate unfit or undesirable genes by prohibitions on sexual relations, restrictions on marriage, sterilization or killing, are all forms of negative population eugenics . . . The provision of rewards, incentives and benefits to encourage the increased representation of certain genes in the gene pool of future generations constitutes positive population eugenics (Kevles qtd. in Sloan 210).

Within the same society, the equality of the right of having children ever since the beginning of civilization was being negotiated. Population control, even though some creeds protest strongly against it, has some valid presumptions of

maintaining a certain population-resource balance. But this was not about population in general, but the composition of the population. As mentioned earlier, middle-classes married later and had fewer children while the working classes married earlier and had more children. In a social welfare state this meant that the working classes would enjoy more social benefits shifting larger portions of national income from the middle classes. According to middle-class eugenicists this would upset the social order and cause regression in the society because the income would not be distributed according to merit but numbers. They maintained the idea that all vice stemmed from social reforms which was supporting “the unfit” at the disadvantage of “the fit”. Yet even though middle-class eugenicists were against the intervention of governments in social reforms, they were for it in their need of a central authority to realise their schemes. As Stone has pointed out

“middle class mainstream” . . . meant complacently accepting racial hierarchies and articulating visions of social order which could not have been achieved without committing considerable violence. There is something disquieting about the “respectable” members of the society . . . sitting in their comfortable lounges discussing the need to eliminate the unfit, without seriously considering the terrible implications of realising such vague visions (85).

The middle class eugenicists never announced their visions directly. It was by the use of euphemisms and ambiguity that replaced lower-classes with “paupers”, “feeble-minded”, “residuum”, “riff-raff”, “dregs”, the Jews with “aliens”, sterilization with “preventive checks” that they discussed and published their thoughts even though there were some fanatics who would occasionally reveal the true motives. The catch-phrase of the eugenics movement was “feeble-

minded.” It acted the part of a wild card in a poker game, meaning whatever the user wanted it to imply. It is indicated that

In the first decades of the twentieth century, the term “feeble-minded” was employed to identify anyone who did not fit middle-class standards of physical, mental or social fitness. For example, a woman who bore a child out of wedlock was considered to have the “weakness of the mind” that indicated a “lack of moral fibre”. The term stigmatized hundreds of thousands of individuals who were said to have failed in their attempts to adapt to society, and it shifted attention away from the economic plight of those who languished in squalor and poverty. The existence of feeble-mindedness could also be used by Fabians and other liberals to explain why representative democracies needed an elite cadre of leaders to implement social reforms devised by the genetically superior intellectual classes (Marouf 115).

What made the eugenics movement even more popular was that, ironically, even though it was the typical conservative “middle-class mainstream”, it was just as popular among the left partly due to the ambiguity and the euphemism but moreover by its scientific claims serving positivism which was more influential than plain humanism. The eugenics movement also emphasized the menace of mobocracy which attracted the meritocratic socialists of the period. But other than this the anarchists and communists too welcomed eugenics as something that would help to create their classless societies. It was obvious that;

The popularity of eugenics on the left –and not just the aristocratic socialist or technocratic, social engineering left of the Fabians and Shavians- indicates that eugenics had an appeal far beyond that of a middle-class protest movement (Stone 100).

But the intervention by the government that eugenicists encouraged never was realized. When the Mendelian Laws were applied to human heredity, the British eugenicists who had so far built their doctrine upon the theory of germ

plasm were left between the choices of rejecting or accepting it. As they continued to adhere to the theory of germ plasm which suited better to their motives, the scientific base of eugenics was shaken for the first time. So far, eugenics had succeeded in keeping up pretence of scientific neutrality. But when, in spite of the evidence of Mendelian Laws, they tried to carry on their schemes, the façade began to collapse. When the Mendelian laws of segregation and independent assortment were recovered, it was assumed that the heredity of plants and animals were different. Mendel had experimented with peas initially which depicted a very regular statistical pattern over certain traits such as height and colour. There were no in-between results between two opposite traits which he deducted as traits being formed in pairs, one from each parent with one determining the trait of the offspring, "segregation". He named the determiner as "dominant" and the other as "recessive". The recessive was not modified in the presence of the dominant and could be recovered on further crossing. Each pair of trait was independent of the formation of another pair displaying a different trait, "independent assortment" Mendelian Laws meant that each inheritable trait was either in a dominant or recessive capacity, there was no place for better or higher quality of those traits and they were basically the same in every person. These shifts in the scientific circles from germ plasm to Mendel's "alleles" nullified British eugenicist's basic postulate and highlighted their speculative standing.

Evolutionists of the day focused on the adaptation of species - on change. Mendel's theory accounted for the ongoing transmission of characters - for stability. The work of most biologists was descriptive and speculative; Mendel's was experimental, analytic, and quantitative (Kevles 42).

Mendel's Laws caused a turning point and stagnation in British eugenics while an enthusiastic American biologist, Charles Davenport raised enough funds from tycoons such as Andrew Carnegie to set up laboratories in Cold Harbour in 1910 to study human evolution. He defended that the idea of a 'melting pot' was left behind due to Mendel's laws which depicted that "characters [were] inherited as units and [did] not break up (Kevles 47)." Though he had the latest scientific ideas and money to go with it, the mentality lurking behind was not different from the British eugenicists. As Kevles notes;

Like Galton and Pearson, Davenport identified good human stock with the middle class-especially "intellectuals", artists and musicians and scientists. In his American context, he also gave high marks to the native white Protestant majority (47).

Such was the evolution of eugenic quasi-religion, it defied Catholicism for Protestantism and it defied Protestantism for the Darwinian philosophy. And since religion and pity, "artful devices" against the eugenics were being disfavoured for the sake of the quasi-religion, the utilitarianism of Bentham's was stressed as a part of Darwinist discourse. Bentham's thought "which states that the best action or decision in a particular situation is the one which most benefits the most people"(Cambridge 1603) was made use of to convince people that not having children was for their own good for they would be spared from drudgery and poverty which was ironically supported by the very people that believed they were defending the rights of the lower classes. The American anarchist Emma Goldman noted that;

Wretched as the earnings of a man with a large family are, he cannot even risk even that little, so he continues in the rut, compromises and cringes before his master, just to earn barely enough to feed the many little

mouths . . . Masses of workers have awakened to the necessity of Birth Control as a means of freeing themselves from the terrible yoke (qtd. in Marouf 87).

Eugenicists were not only involved in controlling reproduction. They were also against the welfare state which according to them helped and supported the wrong group of people. The eugenic “fits”, that is, middle-class members paid taxes to the state which financed the social benefits to prove the plights of the eugenic “unfits”. The Industrial Revolution, with the introduction of new machines and techniques, no longer needed the mass society that it has created. For the first time there was mass unemployment. The mass populations stuck in the cities had no alternatives left other than theft and beggary. Social unrest was unavoidable and when it occurred in a series of strikes and demonstrations, measures were taken and the *Labour Exchange Act* of 1909 and the *National Insurance Act* of 1911 which passed that introduced social benefits such as unemployment pay and health insurance to the workers. It was precisely these series of events which set off the opposition of the class-conscious and efficiency-focused reformists. Eugenics served as a new instrument for social benefits, The eugenicists were against the charity of Christianity and the social assistance of the state. They were not involved with the plight of the working classes, or, even if they were, they thought that negative eugenics was for the common good. They thought that scientific aid ought to replace the inefficient charity and assistance systems that supported lower classes and spoiled the British germ plasm. A eugenicist claimed;

The superficially sympathetic man flings a coin to the beggar; the more deeply sympathetic man builds an alms house for him so that he need no longer beg; but perhaps the most radically sympathetic of all is the man

who arranges that the beggar shall not be born (Havelock Ellis qtd. in Marouf 112).

As quoted earlier in the text the social engineering left of the Fabians and Shavians led by the prominent figures like Bernard Shaw, Herbert George Wells, Sidney J. Webb and his wife, Beatrice Potter Webb, supported eugenics. They demanded that inefficiency ought to be discouraged. The Insurance act which introduced unemployment pay triggered their opposition. They thought that giving out money without questioning the fitness of the worker was unsupportable. They proposed that the workers ought to be gathered in compounds to check if they were honorable unemployed workers or just paupers. McCarthy makes the observation that;

[Hillaire Belloc] was outraged at “this scheme for putting citizens into compounds” especially since it “applies only to the very poor and not “to the class to which the Webbs belong, nor indeed to anyone under the present capitalist system, is in possession of the means of production.”

Belloc’s dismay at the class basis of this reform legislation with the snobbish implications of special regulation and supervision of the poor rather than direct assistance with which they could manage their own affairs, caused a shift in his social criticism (286).

G.K. Chesterton and Belloc improvised a social reform system that sympathized with the poor because in their poverty and hopelessness they saw the failure of the secularism. They tried to introduce a widened property distribution which would guarantee a man to live in peace with his family. Hillaire Belloc’s *Servile State* (1912), described what is also known as the *Distributism* or *Guild Socialism*. Its aim was to redistribute property, not equally but according to a restoration of rights which would allow any man to live in material and spiritual comfort in the privacy of his home with his family.

In Britain the eugenics movement failed to attract its most ambitious target, the government intervention, but it made its impact on the collective conscious of Britain with its metaphors of artificial selection, scientific progress and class-consciousness. It was in the United States of America that eugenics was more popular and there were applications of sterilization, even some cases of infanticide. What stopped the further development of eugenics in America was the dissolution of the middle classes during the Great Depression.

By 1929, the advent of the Great Depression meant that aristocratic forms of eugenics were no longer credible when millions of hardworking Americans found themselves in financial straits. The crash of the stock market greatly altered the composition of audiences willing to listen to mainline eugenical speculations. As one writer would observe, the genetically “fit” and “unfit” shared the misfortunes that came with the stock market crash. When both second-generation immigrants and native Anglo-Saxons suffered with the rest of the social order, the calls for the sterilization of tens of millions of Americans fell on deaf ears (Marouf 130).

The second blow was delivered to eugenics when its ongoing processes and results in Nazi Germany were revealed following the Second World War. Eugenics became a taboo word and movement in an era when advances in the science of human genetics gained an incredible speed. The discovery of the “DNA” and then its “Double Helix” structure in 1953 by James Watson and Francis Crick known as the “genetic code” allowed new possibilities and from 1980 to 2001 the “Human Genome Project” was realized which has decoded all the genetic material hidden in the human chromosomes. Information of such enormousness could hardly be expected not to stir the collective conscious of the eugenicist past. Hermann Muller, the Nobel Prize winner in Physiology/Medicine in 1946, said in an address in 1949;

The fact that the so-called eugenics of the past was so mistaken . . . is no more argument against eugenics as a general proposition than, say, the failure of democracy in ancient Greece is a valid argument against democracy in general (qtd. in Kevles 261).

Contrary to the “old eugenics”, the “new eugenics” was based on pure science for a long time until it came to a point where it could make further use of the information it had. Another crucial differentiation between the “old” and the “new” eugenics was that the former had emerged as a part of state action while the latter emerged in a global world and is part of a commercial and individual action. The “old” eugenics stressed upon “negative eugenics” while in the “new” eugenics, the stress is on “positive eugenics”. But apart from these differences, there is an alarming sameness, the Human Genome Project is the revival of “old” eugenics in terms of artificial selection, scientific progress and class-consciousness, although the artificial selection now occurs for genes, scientific progress as the only alternative in an era described as the “end of history” and class-consciousness is disguised again under the pretext of avoiding crime, homelessness and other such social problems.

Richard Dawkins have claimed in his book *the Selfish Gene* that human beings are really “survival machines, robot vehicles blindly programmed to preserve the selfish molecules known as genes (Kaye 137).” The blindness and randomness of Darwin’s natural selection was replaced by the selfish genes whose sole instinct is to survive, to reproduce, to pass on and man is reduced to his micro organisms.

To argue that evolution is a change in gene frequencies and that behaviour, too, can be genetically influenced is scientifically defensible, but to claim that “selfish genes” have “programmed” all organisms,

including man to “serve” them is myth. What [they] are thus popularizing is not objective science but their own metaphysical assumptions, philosophical positions and social visions (Kaye 137).

The “old” eugenicists’ analogies were directly from nature, especially from farm animals such as dogs and cattle while the “new” eugenicists’ analogies came from elaborate myths about genes but their basic postulate was the same biological determinism that explained all the social aspects of human behaviour. The Human Genome Project is again being an instrument to a new kind of social Darwinism that emphasizes inequality, selfishness and middle class values. The finale of the Eugenics is the current stage of hesitation about direct action, the refrain from using the power it has.

The old eugenicists had tried to replace metaphysics with positivism, social institutions with utilitarianism and contemporary social order according to a predetermined future one for an advanced and hierarchical society. The new eugenicists, on the other hand, are treading on a similar path, with the ultimate confidence in science, reducing man to a mass of genes that can be controlled in advance for a better social order and the same belief in the future man who will be designed with the best genes possible.

CHAPTER III

EUGENICS IN UTOPIAS

This chapter focuses on four works of utopia which foresaw eugenics necessary to finalize an ideal state. These works are H.G. Wells's *A Modern Utopia* and *Men Like Gods* and Bernard Shaw's *Man and Superman* and *Back to Methuselah*.

In the first chapter, the eugenics movement has been referred as being a revival of Platonic and Spartan traditions of breeding superior men and women from the best of the stock. These individuals then would be the rulers and defenders of the state. The Platonic tradition referred to the ideas, the debates and arguments while the Spartan tradition referred acting according to the idea. The first eugenic state was formed by the Spartans who applied infanticide to keep on a society that was based on combat skills and physical fitness. As Plutarch indicates any infant born was the property of the Spartan state and its destiny was not even up to its parents to decide.

Nor was it in the power of the father to dispose of the child as he thought fit; he was obliged to carry it before certain triers at a place called Lesche; these were some of the elders of the tribe to which the child belonged; their business it was carefully to view the infant, and, if they found it stout and well made, they gave order for its rearing, . . . , but, if they found it puny and ill-shaped, ordered it to be taken to what was called the Apothetae, a sort of chasm under Taygetus; as thinking it neither for the good of the child itself, nor for the public interest, that it should be brought up, if it did not, from the very outset, appear made to be healthy

and vigorous. Upon the same account, the women did not bathe the newborn children with water, as is the custom in all other countries, but with wine, to prove the temper and complexion of their bodies; from a notion they had that epileptic and weakly children faint and waste away upon their being thus bathed, while, on the contrary, those of a strong and vigorous habit acquire firmness and get a temper by it, like steel (Plutarch 62).

Plato, who had set out to envisage the ideal state and society in his *Republic*, argued for a system that was similar in its application of negative eugenics to the Spartans. Plato's ideal state consisted of members that were assumed to be different in their very essence. Plato envisaged a multi-classed, functional and hierarchical society where the best of the stock would deserve the best of the opportunities along with the heaviest burdens. He identified those classes with different mineral ores.

We shall tell our people, in mythical language: You are doubtless all brethren, as many as inhabit the city, but the god who created you mixed gold in the composition of such of you as are qualified to rule, which gives them the highest value; while in the auxiliaries he made silver an ingredient, assigning iron and copper to the cultivators of soil and the other workmen. Therefore, inasmuch as you are all related to one another, although your children will generally resemble their parents, yet sometimes a golden parent will produce a silver child, and a silver parent a golden child, and so on, each producing any. The rulers therefore have received this in charge first and above all from the gods, to observe nothing more closely in their character of vigilant guardians, than the children that are born, to see which of these metals enters into the composition of their souls; and if a child be born in their class with an alloy of copper or iron, they are to have no manner of pity upon it, but giving it the value that belongs to its nature, they are to thrust it away into the class of artisans or agriculturists; and if again among these a child be born with any admixture of gold and silver, when they have assayed it, they are to raise it either to the class of guardians, or to that of auxiliaries: because there is an oracle which declares that the city will then perish when it is guarded by iron or copper. Can you suggest any device by which we can make them believe this fiction (Plato 106)?

Plato believed, or rather he preferred to believe, that people were born with predetermined traits, those with the most preferred traits were gold and the rest descended in a hierarchy of silver, iron and copper. There were sub-classes of different alloys. Plato however did allow for the possibility that better-composed infants might be produced from lower-composed parents, and vice versa. Those children, according to Plato, ought to be raised in line with their metallic compositions. Thus the caste system Plato elaborated was a form of meritocracy. His analogy of the oracle's declaration, that when the people composed of iron and copper become rulers, the city state would perish, reflects one of the basic fears of the eugenicists of the Edwardian Britain. Plato carried further his arguments that the best of the stock ought to reproduce more. Festivals would be arranged to bring the best of the stock together. Their children would be taken from them and raised according to the principles of state without family ties. For the unfit children, he foresaw the Spartan system that reduced direct infanticide to indirect infanticide.

While the issue of inferior parents, and all imperfect children that are born to the others, will be concealed, as is fitting, in some mysterious and hidden place.

Yes, if the breed of the guardians are to be kept pure (Plato 161).

In Plato's *Republic* the supremacy of the state over the individual was absolute. Everything had to comply with its contribution to the state. State meant the Guardians, the philosopher-kings, the best of the stock that has been raised in dedication and loyalty to the state. Plato's *Republic* in this aspect could be accepted as the first scientifically organized rational state. And in line with Richard Gerber's definition of utopia it is one of the first utopias as well.

[U]topias are skilful descriptions of ideal societies meant to be taken as practical contributions to social reform. The utopian writer is an active social reformer producing constructive political propaganda (xiii).

The utopias written in the late nineteenth and early twentieth centuries focused on ideal societies that were rational, positivist and totalitarian societies based on science and its possibilities. Francis Bacon's *New Atlantis*, for example, glorified science and the scientist. The scientists were the new guardians in charge of the society. But two major social reformers, H.G. Wells and Bernard Shaw based some of their utopias on eugenics as well. Even though Wells supported a functional class system like the Platonic castes and Shaw the Nietzschean concept of "superman", their ideal states were inspired by the primal fear of Plato's oracle's warning.

Wells envisaged a society where there would be scientifically controlled classes where everyone served the state or society according to his/her merit and was completely satisfied by his/her position. In his *First Men in the Moon* (1901), Wells presents a society of Selenites, insect-like forms gone through progressive evolution. The scientist who had succeeded in making the journey to the moon is impressed by the fact that

In the moon . . . every citizen knows his place. He is born to that place, and the elaborate discipline of training and education and surgery he undergoes fits him at last so completely to it that he has neither ideas nor organs for any purpose beyond it. . . . So also he loves his work, and discharges in perfect happiness the duty that justifies his being. And so it is with all sorts and conditions of Selenites - each is a perfect unit in a world machine (*First Men in the Moon* 458).

The rational state's implied motto was harmony between the state and the individual in spite of a functional class system. There were no social frictions, no

embitterment, no contrary voices within such a system. Wells was a great admirer of Plato and his work is inspired by the platonic tradition. In *a Modern Utopia* (1905), another utopia of Wells, the mineral ore casts of Plato has been replaced with temperamental castes. Although eugenics was applied to an extent in eliminating “deformed and monstrous and evilly diseased births” (143) and limitation of marriage relations, Wells actually claimed that the classes could not be created by hereditary engineering since there was not enough information about this subject. Moreover he believed that a certain amount of strife was needed for the perpetual dynamism of the individual and the state. Even though the World State in *A Modern Utopia* provided education, food and shelter for its citizens, it also maintained a certain domain of uncertainty that its citizens would fill up with their individuality.

The State is to be progressive, it is no longer to be static, and this alters the general condition of the Utopian problem profoundly; we have to provide not only for food and clothing, for order and health, but for initiative. The factor that leads the World State on from one phase of development to the next is the interplay of individualities; to speak teleologically, the world exists for the sake of and through initiative, and individuality is the method of initiative (*A Modern Utopia* 88).

These individuals were categorized as belonging to either of the four temperamental classes; “The Poietic or the creative class”, “the Kinetic”, “the Dull or the stupid” and the “Base”. The first group consists of artists and scientists, the second, of the executives, the third of are the unskilled workers and the last class consists of socially antagonistic elements. The first two classes are “the pillars of the society” while the last two classes exist only because the state allows them to exist. Wells claimed that even though the World State could eliminate the Dull and the Base, it chose to allow them to reproduce at lower

levels than the two other classes. The Dulls were needed for some of the work to be done and the Base was needed to revoke vitality in the society. Wells did not believe that these castes were absolute. There were many variations in each class. But still it was a necessary categorization because it served practicality.

In actual experience these qualities mingle and vary in every possible way. It is not a classification for Truth, but a classification to an end. Taking humanity as a multitude of unique individuals in mass, one may, for practical purposes, deal with it far more conveniently by disregarding its uniquenesses and its mixed cases altogether, and supposing it to be an assembly of poetic, kinetic, dull, and base people (*A Modern Utopia* 270).

This information coming from a “Samurai”, equivalent of the “Guardian” of Plato’s *Republic* in *A Modern Utopia*, depicts the same mentality with Plato’s mineral ore castes, a devised myth to have more control over people. These classifications are as the Samurai says fictive categories serving a political end. Wells, a devoted socialist, defended the inborn inequality of men that would exist in these classes. As Gerber noted;

A Modern Utopia is the first modern utopia; but at the same time the last modern utopia, for on the one hand it does away with the idea of a classless society, but on the other hand it is the last to present the society of functional classes in an attractive light (67).

Aldous Huxley’s first novel, *Crome Yellow* (1922), ironically depicted a character who kept explaining a future state, a rational state to come which resembled Well’s *A Modern Utopia* in many aspects while it also introduced the fundamentals of the *Brave New World* that Huxley was to write ten years later. The character, a Mr. Scogan describes his vision of a rational state, as follows:

In the Rational State . . . human beings will be separated out into distinct species, not according to the colour of their eyes or the shape of their

skulls, but according to the qualities of their mind and temperament. Examining psychologists, trained to what would now seem an almost superhuman clairvoyance, will test each child that is born and assign it to its proper species. Duly labelled and docketed, the child will be given the education suitable to members of its species, and will be set, in adult life, to perform those functions which human beings of his variety are capable of performing (Crome Yellow 128).

When asked about these new species, Scogan gives three sets of species; the Directing Intelligences, the Men of Faith, and the Herd. The first set makes up the ruling class of the Rational State, the second set makes up instruments of power who are dedicated to the State with a mad fanaticism and the third set makes up the work force, which has been raised to find happiness only in work. When asked by one of the audience as to what his place should be in such a society, Scogan sees him as unfit to be placed in any of the sets and says the only place he can see him is the lethal chamber. The lethal chamber was the utmost limits as to how far the eugenics movement meant to go.

Bernard Shaw was another figure who advocated eugenics for the realization of perfect future state. However he did not elaborate such detailed classes. Shaw was influenced by Nietzschean ideal of a superman. There were only two classes in Nietzsche the man and the "superman". The superman (or the overman) according to Nietzsche was "something that shall overcome" the man which is "a rope, tied between beast and overman-a rope over an abyss." (Nietzsche 126). There is again the emphasis on progress, the repeated analogy of Disraeli's character referred earlier, "we had fins; we may have wings". Nietzsche's transition of man to superman reflects the same absolute trust in progress and future.

What is ape to man? A laughing-stock or a painful embarrassment and man shall be just that for the overman: a laughing stock or a painful embarrassment (124).

This overman did not mean that mankind would evolve to a mass of superior beings. Nietzsche denied the equality of mankind and foresaw that the ones that had superior qualities in means of living meaningful lives, pushing the limits of sensation and having the courage to deny orthodoxies, would become the “supermen”. As referred earlier in Chapter Two, Nietzsche regarded pity and Christianity as the reasons of the decline in Western Civilization. He also denied the equality of man before God and thought that the mass man created by the industrial revolution was inferior in comparison with the “higher men” who would eventually become superman.

“There are no higher men, we are all equal, man is man; before God we are all equal.”

Before God! But now this god has died. And before the mob we do not want to be equal (398).

Shaw’s *Man and Superman* (1905), adopted this superman ideal, combined it with Darwin’s biological evolution and defended the urgency of measures to be taken. He advocated that “the overthrow of the aristocrat has created the necessity for the Superman.” He defied any kind of progress other than eugenics as a loss of time, a rootless enterprise and a romantic illusion. In the play there is frequent mention of an unorthodox pamphlet by the name of “*The Revolutionist’s Handbook and Pocket Companion*” that defended the Nietzschean principles of a superman that fared above such issues as total progress of mankind.

Unfortunately the earnest people get drawn off the track of evolution by the illusion of progress. Any Socialist can convince us easily that the

difference between Man as he is and Man as he might become, without further evolution, under millennial conditions of nutrition, environment, and training, is enormous. He can show that inequality and iniquitous distribution of wealth and allotment of labour have arisen through an unscientific economic system, and that Man, faulty as he is, no more intended to establish any such ordered disorder than a moth intends to be burnt when it flies into a candle flame. He can show that the difference between the grace and strength of the acrobat and the bent back of the rheumatic field labourer is a difference produced by conditions, not by nature (Shaw 236).

But Shaw was determined to persuade his readers to believe the opposite.

He argued that mankind and civilization are suffering from the same problems over the centuries never taking heed of the disasters. Unless some scientific enterprise is carried out by the government to ensure a race of supermen who would be the new leaders in changing the river-bed of history, civilization would be lost. Furthermore since no commercial entrepreneur would go into such a venture. Shaw suggested a stud farms project financed by the state and this suggestion created quite a controversy, when the book was published. Shaw had quite detailed action plans for these farms. The following is a part of the details of the action plan, from the afore-mentioned pamphlet.

Even a joint stock human stud farm (piously disguised as a reformed Foundling Hospital or something of that sort) might well, under proper inspection and regulation, produce better results than our present reliance on promiscuous marriage. It may be objected that when an ordinary contractor produces stores for sale to the Government, and the Government rejects them as not up to the required standard, the condemned goods are either sold for what they will fetch or else scrapped: that is, treated as waste material; whereas if the goods consisted of human beings, all that could be done would be to let them loose or send them to the nearest workhouse. But there is nothing new in private enterprise throwing its human refuse on the cheap labour market and the workhouse; and the refuse of the new industry would presumably be better bred than the staple product of ordinary poverty (254).

Shaw reduces real people to manufactured goods, again a pioneering idea that would later evolve to the *Brave New World's* assembly lines. Wells' ideal state had been a scientific one where the classes acted at will for the functioning of the state. It was a meritocracy based on temperamental classes. However, Shaw's supermen existed in a kind of aristocracy. Bernard Shaw, while adopting the Nietzschean ideal and expressing the need for supermen to form a new aristocracy, segmented his future society into men and supermen. He denied the equality of mankind and expressed his fears of a future mobocracy. He argued that

There is no public enthusiast alive of twenty years' practical democratic experience who believes in the political adequacy of the electorate or of the bodies it elects (256).

Shaw wrote another play involved with eugenics, *Back to Methuselah* (1922) in which he introduced the "ancients", people conquering longevity and becoming wise men, rich in experience and knowledge. These "ancients" were not born but hatched out of eggs almost in the age of puberty. Methuselah was a Biblical patriarch who lived 969 years. The laboratory mice used in longevity studies are now called as the "Methuselah mice" and Margaret Atwood's *Oryx and Crake* alludes to the death of such a mouse.

All these utopias depicting ideal future societies reflected the prejudices and value judgements of their creators. Wells' totalitarian World State based on scientific foundations needed certain myths for the subjection of its citizens to serve the state without social frictions. The only individuality was allowed for the sake of progress. Shaw's selective aristocracy forecast progress for only the

higher men that had the potential of becoming supermen. The lower men or the mob in Nietzschean terms would only sink lower in comparison. As to scientific bases, Wells declared outright that they did not know enough about heredity to produce such castes and Shaw's stud farms were again a projection of the breeding of right sort of man, the same scheme that Plato had suggested some two thousand years earlier.

G.K. Chesterton argued against these positivistic and secular utopias with their vague notions of eugenics. In his book, *Eugenics and Other Evils* (1922), he stated the following

They cannot tell us anything about heredity, because they do not know anything about it. But they do quite honestly believe that they would know something about it, when they had married and mismarried us for a few hundred years. They cannot tell us who is fit to wield such authority, for they know that nobody is; but they do quite honestly believe that when that authority has been abused for a very long time, somebody somehow will be evolved who is fit for the job. ... they are simply gambling. The reckless gambler has no money in his pockets; he has only the ideas in his head. These gamblers have no idea in their heads; they have only the money in their pockets. But they think that if they could use the money to buy a big society to experiment on, something like an idea might come to them at last. That is Eugenics (Chesterton).

Chesterton's views were affirmed, there wasn't sufficient knowledge to construct a scientific basis for the application of eugenic techniques. However Wells, even though he was honest enough to admit the inefficiency of eugenics, was a supporter of progress and evolution which he hoped would change the panorama in a near future. In his *Men like Gods* (1923) he manifests greater trust in scientific progress and in the possibilities of eugenics. It is Utopia visited again, where Shaw's stud farms are mentioned as ordinary scientific applications

while Chesterton's scruples about them as mentioned above are ridiculed by the figure of Father Amerton..

A gasp of horror came from Father Amerton. He had been dreading this realization for some time. It struck at his moral foundations. "And you dare to -regulate- increase! You control it! Your women consent to bear children as they are needed--or refrain!"

"Of course," said Urthred. "Why not?"

"I feared as much," said Father Amerton, and leaning forward he covered his face with his hands, murmuring, "I felt this in the atmosphere! The human stud farm! Refusing to create souls! The wickedness of it! Oh, my God (Men Like Gods)!"

In *Men like Gods*, the perfect harmonious society has been achieved at last, so there is no need for functional classes. Everybody has become the supermen, so there is no need to fear of mobocracy. Human nature has been conquered by scientific developments and purged of every defection. As one Utopian explains;

For centuries now Utopian science has been able to discriminate among births, and nearly every Utopian alive would have ranked as an energetic creative spirit in former days. There are few dull and no really defective people in Utopia; the idle strains, the people of lethargic dispositions or weak imaginations, have mostly died out; the melancholic type has taken its dismissal and gone; spiteful and malignant characters are disappearing. The vast majority of Utopians are active, sanguine, inventive, receptive and good-tempered (Men Like Gods).

These utopias with their visions of future man and future social order shifted from the equality of man and felt more compassionate towards some future world and man than the contemporary one they were living. This stemmed from the fact that these utopias however carefully and skilfully composed were nothing but by-products of their period. Just as Plato had devised his castes to justify his notion of a state, Wells devised his functional classes to justify the

modern society with its over-organization and production methods and its Fordian assembly lines in which the mechanic “who was once a skilled craftsman, was reduced to a mere assembler, a machine tender who laboured monotonously at a rudimentary task for hours without a break (Baker 84)”. Such methods of simple processes required people who would slave away in an uncreative and heavy work so it would be a helpful myth to the society if these people were presented as the Dull or as the mob. Shaw’s superman was similarly a sibling of the general fear that Britain was declining because it failed to create geniuses. As Gerber has remarked,

The scientific utopia . . . accepts the fact that man is no longer a state of nature, that a modern society has to be complex, and that its organization requires a great deal of social planning. In working this out the scientific utopian is led to use a considerable amount of applied science in order to deal adequately with a modern complex society which possibly extends over the whole world. The serious social planner generally tries to pursue some middle course, but by this very reasonableness he ceases to be utopian (47).

The utopian imaginations of Wells and Shaw are tainted by the conflict between their moral principles and their concerns about the age in which they lived. Even though both Wells and Shaw came from poor families and went through hard labour to achieve their position in the society, they became the partisans of their later status in life, ignoring their own roots, dismissing their fellow people as the dull, the base or the mob. Although, each is an artist and social reformer, combined in one, each acted and created with the best intentions, that is, future prosperity and progress of mankind, they failed to notice that the utopias they created with their scientific and rational glories attacked what may be considered as the essence of the spirit of humanity. Man became like part of a

machine whose condition was more important than the man himself. Wells and Shaw liberated man from old myths like religion and dogma but subjected him to state and science. As Roppen has put it;

These highly temperamental visions, struck out from political and intellectual idiosyncrasies that excluded them from the Christian as well as the democratic tradition, should be repellent to many, should be branded in turn as heresies and superstitions and grotesque experiments in human destiny. Orthodoxy was outraged, since what they preached was in fact a religious substitute. Humanitarian intellectuals were against them, since they threatened to tamper with the natural evolution of human being, and make him a hideous test-tube product: a docile, predestinate instrument in the hands of an all-powerful State. Though Shaw and Wells had taken precautions against this kind of misrepresentation, their message was suspect, and it seemed to keep the new poison hidden in readiness-eugenics (454).

Eugenics in the utopias is thus considered as means of achieving the perfect world state. These future world states need world citizens who are either reproduced and brought up to accept the social order of the perfect state so that there will not be any social frictions or the world state needs a set of supermen who will determine the world order and how the other citizens will fit in this order. In both cases eugenics is used in further differentiating humankind, biologically determining the inequality between classes and races. The rational approach to evaluate everything in terms of scientific progress, efficiency and utilitarianism is applied to humankind as well.

What Wells and Shaw failed to see in their creations did not go unnoticed by others. Aldous Huxley after giving hints of his abhorrence of Wellsian functional classes moved on to write his *Brave New World*.

CHAPTER IV

EUGENICS IN *BRAVE NEW WORLD*

Aldous Huxley wrote *Brave New World*, whose premises he had composed in his first novel *Crome Yellow* as referred in Chapter Three, in 1932. He had written to a friend that “he was composing a novel about the future, on the horror of the Wellsian Utopia and a revolt against it (Watt 73).” After the publication of the book, he was to receive a letter from H.G. Wells, accusing him of “treason to science and defeatist pessimism (Baker 11).”

Huxley descended from eminent Victorians. His paternal grandfather was T. H. Huxley, the Victorian biologist and his mother was the niece of Matthew Arnold, two men with opposite views about the education system in Britain. T. H. Huxley represented the modern progressive idealism in which science was rated above all, while Matthew Arnold represented the social humanist idealism in which culture played the major part. Aldous Huxley was planning to become a physician when he lost most of his eyesight at the age of sixteen. This dramatic event made him concentrate on writing poetry and thus start his literary career in this manner. Strangely enough through the bulk of his writing the conflict between his grandfather and granduncle seemed to recur at intervals. As it has been pointed out,

Aldous Huxley wrote in the context of a debate stemming from the Victorian era. It was almost a family inheritance, its instigators being T.H. Huxley and Matthew Arnold. Their debate over the relation between literature and science centred on education. . . . Huxley . . . recommended literature as a part of general education that would pay more attention to science. Arnold . . . stressed the role of literature as a necessary complement or antidote to science (Deery 21).

Even though his literary career went through a transition from nurturing sarcastic doubt of humankind to being a devoted believer in the presence of a thought and belief system that would purify the mankind, Aldous Huxley, too, had his utopias. His “ideal state” at the surface looked similar to Wellsian state at the level of meritocracy and to the Shavian state at the level of aristocracy.

Huxley foresaw that

The ideal state is one in which there is a material democracy controlled by an aristocracy of intellect - a state in which men and women are guaranteed a decent human existence and are given every opportunity to develop such talents as they possess, and where those with the greatest talent rule (qtd. in Baker 74).

What differentiated Huxley from Wells and Shaw was the compassionateness he felt for the average man in his ideal state and the existence of free will against the predetermination of the citizens of the state. In Huxley’s ideal state everyone was provided with opportunity to develop their talents. As for eugenics, Huxley had a brief period in which he attended a couple of meetings of the Eugenics Society. He wrote an essay on eugenics before he wrote *Brave New World* in which he discussed the eugenics movement arguing that the application of negative or positive eugenics was always achieved at the expense of other groups. In general he was disgusted with eugenics and eugenic utopias. He said in the same article:

The eugenists . . . have proposed various remedies, some practical and some fantastically utopian. They range from modest proposals to sterilize the mentally deficient and reward . . . the fertility of the intelligent, to the wildest schemes for making stallions of men of genius and forbidding ordinary human beings to have any children at all (Essays 281).

The use of “practical” in the above paragraph implies that some measures proposed by the eugenicists such as sterilization of the mentally unfit was agreeable to Huxley. Nevertheless he opposed strongly to the sterilization of the poor and systematic acceptance of “wage-earning capacity” as a fitness determiner. He also expressed a belief that soon the eugenicists would “learn to breed babies in bottles (283).”

Brave New World depicts a world which is based on science and eugenics, a World State, that is like the Wellsian rational world state whose motto is “Community-Identity-Stability”. Stability is the most important factor in determining the state policy. This stability is sustained through three interdependent instruments, all controlled by the World State. These are, genetic engineering for the determination of human populations, psychological conditioning for controlling their mentality, and through “soma”, a drug produced and distributed by the State as a preventive check, if the first two would fail.

Plato and Wells had abolished parenthood in their utopias as mentioned. Huxley went further and abolished motherhood altogether. The human population of the Brave New World was genetically engineered in hatcheries like the ancients of Shaw. Viviparous reproduction of humans has been replaced by an artificial ovoviviparous reproduction. Even though these engineering complexes are called hatcheries after an organic reproduction method, even hatching eggs

would be a far more humanistic way than the genetical engineering of the World State's human population. The infants are actually bred in bottles as Huxley had commented in his essay.

Brave New World starts with a tour of one of these hatcheries and conditioning centres, located in Central London. The "Director of Hatcheries and Conditioning" conducts a group of students. The description of the laboratory displays the chilling atmosphere of the so-called hatchery.

[A] harsh thin light glared through the windows, hungrily seeking some draped lay figure, some pallid shape of academic goose-flesh, but finding only the glass and nickel and bleakly shining porcelain of a laboratory. Wintriness responded to wintriness. The overalls of the workers were white, their hands gloved with a pale corpse-coloured rubber. The light was frozen, dead, a ghost. Only from the yellow barrels of the microscopes did it borrow a certain rich and living substance, lying along the polished tubes like butter, streak after luscious streak in long recession down the work tables (BNW¹ 1).

In the Central London Hatchery, the students are conducted through Fertilizing Room, Bottling Room, Social Predestination Room and Decanting Room, where the raw material of ova and spermatozoids are duly processed into the final product, the infant baby. By process differentiation, the infant babies are produced in different qualities and quantities. Some eggs are bottled in the finest surrogate to produce the upper classes of "Alphas" and "Betas". But some eggs are "bokanovskified", that is, by applying radiation and sudden changes of temperature, they are made to yield more identical eggs to a maximum number of ninety-six. The Director describes this process by the organic term "budding":

[A] bokanovskified egg will bud, will proliferate, will divide. From eight to ninety-six buds, and every bud will grow into a perfectly formed

¹ BNW throughout this chapter will refer to Brave New World.

embryo, and every embryo into a full-sized adult. Making ninety-six human beings grow where only one grew before. Progress (BNW 3).

What the Director describes as progress is actually the production of identical twins ranging from stupid to semi-morons in mental capability. They are mass-produced according to the demand for labour and are meant to do all the drudgery and the monotonous work. But they are also too stupid and conditioned to realize what a waste their lives are. This is, what the Director claims to be, the major instrument of social stability.

In Brave New World, there are five major castes. Like their Platonic and Wellsian predecessors, they are classified according to their capabilities and temperaments. The major change in this classification is that it is no longer a myth devised to subdue people but a fact that is realized by eugenics. These five castes are Alphas, Betas, Gammas, Deltas and Epsilons. They have sub-classes too, referred by a minus or plus sign. Each caste member acts according to his/her social predestination and conditioning. None are liberated from the system, that is, a form of state capitalism “where the world controllers are representatives of a world economy based upon rationalized, amalgamated economic units (Sexton 94).” The upper castes of Alphas and Betas are also a product of the system fulfilling the roles of technicians, superintendents, hedonist consumers and the World State Controllers. Even the best of the stock, the Alpha-Plusses are clever, able people without a trace of genius. This idea is furthered in the following quotation:

[Brave New World] is a society that can no longer produce, or tolerate, genius; it is a world of mediocrities at best . . . [T]here is no tolerance for

the spontaneity of the creative mind once the dream of the earlier geniuses has been realized (Gottlieb 77).

These earlier geniuses referred in the quotation above are sometimes real and sometimes fictive figures. The American industrialist Henry Ford has been transformed into a metaphysical figure as will be mentioned at a later stage. So has Sigmund Freud. Ivan Petrovich Pavlov, the scientist involved in conditioning reflexes is another major real figure. Bokanovsky, whose invention is the pillar of stability in the Brave New World is a fictive figure.

The eugenics of Brave New World supported Frederick Winslow Taylor's scientific principles of management that Ford had adapted to his assembly lines. Taylor argued that Man's priority was a thing of the past. Now the efficiency of the system ought to come before the man. The more complex machinery and production methods required differentiation in the social order. The new social order ought to be arranged according to the requirements of the modern production systems and efficiency. This meant an increase in hierarchy and bureaucracy. As Baker has pointed out:

[Huxley's] dystopian state is fundamentally bureaucratic in its vertical, hierarchical structure based on intellectual competency (Alphas, Betas, Deltas, etc.). It exemplifies Weber's continuity in offering all of its citizens permanent security within an elaborate corporate structure. It is equally Weberian in its impersonality, its denial of personal identity and its insistence on social conformity. Most important, it is a technocracy of experts who have channelled their efforts toward the creation of a world of stable routine and economic efficiency (68).

All this economic efficiency is required to sustain an everlasting production based on consumption. Since the citizens are produced according to the labour demand, they also have to consume the product supply. Part of their

conditioning is allocated to make them everlasting consumers with repeated catch-phrases such as “ending is better than mending” and “the more stitches, the less riches”. The infants are conditioned to dislike books and flowers through the use sirens and mild electric shocks. Books are discouraged because they might “decondition on of the reflexes”. Flowers are discouraged because they invoke a love of nature which is considered to be against social order. A love of nature is free and does not require the goods and services of the industrial production.

The castes in the Brave New World are conditioned to admire their own position in the system. It is the realization of Wellsian notion of the perfect citizen who loves his work, and performs in perfect happiness the duty that justifies his being. These conditioning units are called “Neo-Pavlovian Conditioning Rooms”. An “Elementary Class Consciousness” is one of the conditioning subjects. “The principle of sleep-teaching, or hypnopædia” which includes numerous repetitions of slogans and goals of the World State; concentrates on moral education. As the Director admits,

You can't learn a science unless you know what it's all about. Whereas, if they'd only started on *moral* education ... which ought never, in any circumstances, to be rational (BNW 18).

In order to condition the perfect consumer-citizen in perfect harmony with The World State, sleep-teaching method repeats numerous times its basic message, that is, everyone should be happy in one's own class. Since each class in the Brave New World wears uniforms of different colours, sleep-teaching makes its subjects associate the other classes with their colours and hate them. The sleep-teaching session for a Beta infant is, thus, as follows:

Alpha children wear grey. They work much harder than we do, because they're so frightfully clever. I'm really awfully glad I'm a Beta, because I don't work so hard. And then we are much better than the Gammas and Deltas. Gammas are stupid. They all wear green, and Delta children wear khaki. Oh no, I *don't* want to play with Delta children. And Epsilons are still worse. They're too stupid to be able read or write (BNW 19).

The Beta infant is conditioned to accept the caste system, to have respect for the Alphas and contempt for the lower castes. The infant feels lucky to belong to the specific caste predetermined for it. The upper and lower classes don't mix together from the beginning so when they become adults, there is no compassion felt towards lower classes. Their servitude is taken for granted and since the lower classes, themselves, are not in a complaining state thanks to the mental dullness and soma, there aren't any social conflicts.

The history of the Brave New World or the World State begins with the introduction of Ford's first T-Model chosen as the opening date. The current date is A.F. 632. One of the World State's ten Controllers gives information to the group of students about history, a long-dropped subject, considered as "bunk" after Ford. He tells how "ectogenesis", the industrial method of human reproduction in an artificial womb, was developed by scientists along with sleep-teaching and the Caste System. But there were three major opposing forces which had to be overcome by force. As the World Controller tells,

There was something called Christianity. Women were forced to go on being viviparous. . . Sleep teaching was actually prohibited in England. There was something called liberalism. Parliament, if you know what that was, passed a law against it. The records survive. Speeches about liberty of the subject. Liberty to be inefficient and miserable. Freedom to be a round peg in a square hole . . . Or the Caste System. Constantly proposed, constantly rejected. There was something called democracy. As though men were more than physico-chemically equal (BNW 34).

Christianity, liberalism and democracy were overcome by the chaotic atmosphere that followed. There was a war, the Nine Years War which began in A.F. 141. Anthrax bombs mentioned are surprisingly prophetic of the biotechnologic warfare possible now. It was followed by the great Economic Collapse.

There was a choice between World Control and destruction. Between stability and . . . Liberalism (BNW 36).

The attempts to retreat back to nature and culture were brutally subdued because there would not be a tendency to consume in either case. Then the perfect drug, soma was invented. Old age was conquered. The Brave New World citizen was kept young through the life cycle:

Work, play—at sixty our powers and tastes are what they were at seventeen. Old men in the bad old days used to renounce, retire, take to religion, spend their time reading, thinking—*thinking!* Now—such is progress—the old men work, the old men copulate, the old men have no time, no leisure from pleasure, not a moment to sit down and think—or if ever by some unlucky chance such a crevice of time should yawn in the solid substance of their distractions, there is always *soma* (BNW 43).

Pleasure is the key word in the Brave New World social order. Since viviparous reproduction had been abolished, only a selected percentage of the females decanted into Brave New World are fertile. The rest are called “freemartins” thus people are reduced to the status of cattle. There are no families, no romantic love and no compassionate ties between even the members of the same caste. According to the conditioning slogan, everyone belongs to everyone else. The upper classes of the *Brave New World* are either engaged in their complex games that require spending for detailed instruments such as “Obstacle Golf”, or in movies that invoke the senses like the “Feelies” or flying around in their

aircrafts, always with other people. People are seldom alone except for sleeping and sexual affairs. Although this looks rather futuristic and remote, it is from the current observations that Huxley creates his dystopia as the following quotation depicts:

[T]he European-American world of the late 1920s . . . will form part of the fabric of *Brave New World*: the cult of perpetual youth, the problem of leisure, the perils of Fordism to the human psyche, the possible development of eugenics as a means of shaping the man of the future, the implications of the attempt to make man primarily a consumer, and the perils to freedom of a dogmatic egalitarianism. . . . [T]hough *Brave New World* is projected on the screen of the future, it is derived almost entirely from tendencies which Huxley observed (Woodcock 176).

Brave New World's eugenics is not focused on encouraging or preventing the production of any caste for all numbers of reproduction are predetermined according to industrial supply and demand projections. Such a system as mentioned earlier, creates mediocrities rather than geniuses. Even though progress is an often-mentioned and much-stressed word, it doesn't apply to the production of people. The current social order and stability is esteemed above everything. This priority of social order prevails even over science.

At the surface, the dilemma between science and religion seems to have been completely resolved. There is no religion; thus science and scientific progress are the basis of the Brave New World. But at a further glance metaphysical needs have been directed to a strong enthusiasm in scientific progress with Ford as the key figure.

[The World Controller]'s utopia is a secular culture where religion has been replaced by the worship of Our Ford and Our Freud (Baker 139).

Our Ford, as referred by the *Brave New World* citizens, has become a legendary figure. Everything about him points to a religious symbol. His name rhymes with Lord. The crosses have been cut at the top, thus forming a T, a representation of Fords's T-model. Christmas has been replaced by "Ford's Day" celebrations, Sunday sermons with "Community Sings and Solidarity Services" and church with "Fordson Community Singery". Sometimes he is referred to as Our Freud as well in respect to the past social order. As the World Controller explains,

Our Ford—or Our Freud, as, for some inscrutable reason, he chose to call himself whenever he spoke of psychological matters—Our Freud had been the first to reveal the appalling dangers of family life (BNW 28).

But scientific progress is allowed to the extent that the current social order of eugenic castes, sleep-teaching and soma will not be affected. If any scientist discovers an innovative technique or develops a radical idea, not only his idea is rejected, but he is also kept under supervision. One such work, "A New Theory of Biology" which sounds like an evolution theory is rejected by the World Controller. He regards it heretic "as far as the present order is concerned." Like the fake-religion of Fordism, there is a fake science which is not involved with ideas and philosophy of science. It is involved in developing manufacturing skills. Gottlieb's comment affirms that

Science is not denounced per se. Instead, Huxley denounces the society where even the research scientist is prevented from pursuing his research, where only "applied science" - that is, science applied to serve the totalitarian state machine - is allowed to flourish (67).

The state machine does not act perfectly. In spite of all stabilizing factors, *Brave New World* people might still be a threat for the social order. There is

Lenina Crowne, a pretty Beta-Plus who develops monogamous tendencies. Bernard Marx, though an Alpha-Plus, is smaller and uglier than the average of his caste which makes him a social reject. His friend Hemholtz Watson, another Alpha-Plus blessed with the usual charms of his caste develops an artistic temper against the social order. Lenina, when forced by her friends to take other lovers as well, prefers Bernard although he is not a popular person. Bernard refuses to use soma and keeps to himself and Helmholtz puts himself through chastity trials to see how this would affect his creativity. Lenina's friend warns her against attracting attention for her monogamous heresy. *Brave New World* recycles undesired, malformed infants during the production stage. Undesired adults either from unorthodoxy in science or behaviour are sent to the islands. In fact the misfit Bernard Marx is on the eve of such deportation when he discovers to his advantage the presence of the viviparous-born child of the Controller. The Controller resigns and Bernard Marx enjoys a popularity unknown to him before thanks to the "Savage". John Savage from now on, is the character born and raised in the "Savage Reservation"

Savage Reservation is similar to a human zoo where a group of native people are allowed to exist within a confined space. John Savage and his mother had lived there forgotten. The natives, who are of Mexican origin have rejected John Savage due to his white skin colour and his mother's ways which they found promiscuous. Linda, John's mother, is a product of Brave New World conditioning and has been left accidentally in the Savage Reservation where pagan rituals and family ties still exist. When Bernard Marx and Lenina Crowne take a holiday trip to the reservation, they discover Linda and John. Linda's

conditioning of “everyone belongs to everyone else” has created disturbance within the native community. John’s education is formed by the pagan culture of the natives, Linda’s memories of the Brave New World and a copy of Shakespeare’s complete plays. Linda has committed, besides the revolting sin of a viviparous birth, the crime of aging. Both John Savage and Linda are taken to the Brave New World.

One defining feature of dystopia “is the opposition between scientific culture and primitive nature (Baker 39).” Huxley has created a distorted image of the Brave New World. Instead of the hedonist, comfortable lives, the natives have to face the harsh reality of nature. They have their pagan worship rituals, with their ascetic fertility rites.

From the very first, the John Savage is deeply disgusted by the lack of love, poetry, gallantry and free will in the Brave New World. He has formed for himself a world view of the pagan asceticism and Shakespeare romanticism which simply do not exist in Brave New World. He feels tormented for his romantic obsession for Lenina and the prolonged soma sessions of his mother, which is gradually killing her. Since aging does not exist in the Brave New World, she is easily spared as it is deduced that she is better off dead, with a death painless and unconscious under the delirium of soma. Lenina’s indifference towards words and feelings and her casual offering herself according to Brave New World motto “everyone belongs to everyone else” repels the savage. The last blow is his mother’s death surrounded by a group of identical batch of children receiving their “death conditioning”. Then John Savage goes berserk, destroys the soma ration of a group of workers to liberate them. Since this is a

direct blow to one of the pillars of the Brave New World stability, Savage and his two friends Marx and Watson are taken for a meeting with the World Controller. This final meeting turns into a debate between the Savage and the World Controller. To Savage's suggestion for playing Othello instead of feelies, The Controller rejects the suggestion and replies:

Because our world is not the same as Othello's world. You can't make flivvers without steel—and you can't make tragedies without social instability. The world's stable now. People are happy; they get what they want, and they never want what they can't get. They're well off; they're safe; they're never ill; they're not afraid of death; they're blissfully ignorant of passion and old age; they're plagued with no mothers or fathers; they've got no wives, or children, or lovers to feel strongly about; they're so conditioned that they practically can't help behaving as they ought to behave. And if anything should go wrong, there's *soma*. Which you go and chuck out of the window in the name of liberty, Mr. Savage . . . Expecting Deltas to know what liberty is! And now expecting them to understand *Othello* (BNW 169)!

The Controller then explains why they can't have only Alphas, referring to an experiment in Cyprus, where only Alpha Plusses were settled down. The experiment has resulted in a civil war. Another experiment was conducted in Ireland for shorter working hours which again resulted in a social unrest and a larger consumption of soma. The failure of these experiments persuaded the controllers of the Brave New World to stop further progress in terms of biology and technology. Social order prevailed before pure science. According to a comment,

There could be no stability on Cyprus because there was no social hierarchy; there were no men with hearts of gold, silver, brass or iron. Without Gamma-Minus machine minders, the community reels (Matter 105).

As the debate between John Savage and Controller is furthered, the controller refers to a past that is really the current time of the *Brave New World*, he more or less draws a picture of a society that had an absolute trust in science and its possibilities. He also emphasizes the power of mass production to have a major impact on social order as follows:

It's curious . . . to read what people in the time of Our Ford used to write about scientific progress. They seemed to have imagined that it could be allowed to go on indefinitely, regardless of everything else. Knowledge was the highest good, truth the supreme value; all the rest was secondary and subordinate. True, ideas were beginning to change even then. Our Ford himself did a great deal to shift the emphasis from truth and beauty to comfort and happiness. Mass production demanded the shift. Universal happiness keeps the wheels steadily turning; truth and beauty can't. And, of course, whenever the masses seized political power, then it was happiness rather than truth and beauty that mattered (BNW 175).

Following this debate, Watson and Marx are deported to an island while the Savage remains in the Brave New World. After living in isolation, practising his ascetic rituals, John Savage is rediscovered by the Brave New World as the new curiosity. After a shattering experience of violence, he hangs himself.

Brave New World depicts a world system which is based on science but not on scientific progress. It is a deep-frozen science at a point in history which justifies a political or rather an economic system which is deemed as the perfect one. Eugenics serves this system by providing the classes of individuals who will do the work for which he is designed and be happy with it. In the Brave New World there is no place for love, freewill and genius, thus the individuals have been subdued to the mechanics of the system. Therefore it is a less human world void of depth and variety.

CHAPTER V

EUGENICS IN *ORYX AND CRAKE*

Margaret Atwood, the most prominent figure in the contemporary Canadian novel, until to *Oryx and Crake*, has mostly dealt with feminist issues in her novels, and female central characters. Like Aldous Huxley, she too descended from a family of scientists, considered for a long time studying natural sciences and then decided upon a literary career. *Oryx and Crake* is her second dystopia following *The Handmaid's Tale* published in 1986. *The Handmaid's Tale* introduces "Gilead", a totalitarian society based on Biblical principles where because of the high infertility rate, the women are subdued to reproductive slaves in service of Gilead. In order to write the book Atwood made a detailed research. Howell reports the presence of a clippings file with

information on new reproductive technologies, surrogate motherhood, and forms of institutionalized birth control from Nazi Germany to Ceausescu's Romania (129).

It seems clear that from 1980's on, Margaret Atwood had information on and insight into eugenics. Although she used it in conjunction with *Handmaid's Tale*, the information must have dwelled within her imagination. Atwood did not believe in utopias. In an interview she compared utopias to Dante's *The Divine Comedy*, with Inferno and Heaven at opposite ends. She continues

[W]e've replaced Heaven with a kind of Utopian vision of what humanity could be if only . . . Fill in the blank. The trouble with real life is once you try to implement Utopia, you end up with the Inferno. You end up pulling a lot of fingernails from the people who don't agree with you (Conversations 122).

Oryx and Crake depicts such an Inferno. The civilization is destroyed and human race has been made extinct except for Snowman who was in preceding human society called Jimmy. Snowman is living in a tree, dressed in a sheet. He is in perpetual hunger and alertness to watch out for a number of laboratory-produced animals such as wolvogs (a vicious blend of wolf and dog), pigeons (pigs with human tissues for transplanting) and rakunks (a docile blend of raccoon and skunk) which have become loose in the wilderness to reproduce liberally. Other than Snowman, there is a group of people called the Crakers who are a group of artificially bred human-like beings. Jimmy lives in the past going over his memories and one is able to follow a pattern of the events which led to such an Inferno. Margaret Atwood has said during an interview in Guardian Hay Festival in 2003 that Jimmy was already born, probably four years old thus setting the time line of the novel at a distance of thirty-five years from now on. Jimmy's parents are scientists and they live in compounds in safety and prosperity. There is an over-organized security firm, "CorpSeCorps", short for Corporate Security Corps, protecting all compounds from the ordinary people who live in "pleeblands", crime-infested cities and urban sprawl. The life standard in the compounds and pleeblands is drastically unequal. Compound people don't go into Pleeblands unless they have to and even then, never alone. Jimmy's father has worked at the "Methuselah Mouse" project which tries to conquer immortality deriving its name from the Biblical figure that had inspired

Shaw as well in creating his ancients as mentioned before. He has been transferred to another compound, “the OrganInc Farms” where he engineered pigeons, pigs with human tissues, who would act as an organ bank. His last compound is the NooSkins Project, a subsidiary of HelthWyzer compound. Its primary mission is to create a flawless epidermis to replace wrinkled or blemished skin. All these compounds create further possibilities of age-defying and age-prolonging which are derivations of our contemporary society’s obsessions. These possibilities are only for those who can afford them. Those who can’t afford them offer themselves as test subjects.

NooSkins for the Olds, said the snappy logo. Not that a totally effective method had been found yet: the dozen or so ravaged hopefuls who had volunteered themselves as subjects, paying no fees but signing away their rights to sue, had come out looking like the Mould Creature from Outer Space – uneven in tone, greenish brown and peeling in ragged strips (O&C² 55).

Jimmy’s mother had been a scientist too. But she has stopped working due to moral constraints. A dialogue between Jimmy’s mother and father provides insight to how science is regarded in this society. It is a consumer-based, profit oriented science that no longer deals with humanity. Jimmy’s mother is abhorred by what she considers to be the inhuman approach:

It’s wrong, the whole organization is wrong, it is a moral cesspool and you know it . . . You hype your wares and take all their money and then they run out of cash, and it is no more treatments for them. They can rot as far as you and your pals are concerned. Don’t you remember the way we used to talk, everything we wanted to do? Making life better for people – not just people with money. You used to be so . . . you had ideals then (O&C 57).

² O&C throughout this chapter will refer to Oryx and Crake.

Religion has been broken into numerous marginal sects, not an overall social institution any more. As it has been mentioned in the second chapter, the new eugenics discourse which reduces humans to genes is perceptible when Jimmy's mother accuses her husband of interfering with the building blocks of life. He immediately replies:

Who've have you been listening to? You are an educated person, you did this stuff yourself! It is just proteins, you know that! There is nothing sacred about cells and tissue (O&C 57).

The preceding society of *Oryx and Crake* is definitely not ruled by a democracy. The times that voting has mattered are considered as nostalgic. The system resembles a plutocracy with the great firms determining the so-called state policies. As Atwood has commented in the interview in Guardian Hay Festival, *Oryx and Crake* refers to a global world. Thus in the novel all world states are interlinked by the communication systems and liberal economy. This world has far too much population above the supporting capacity of natural resources. There are many biologically fixed artificial foods such as "ChickieNobs" which consists of a brainless, formless biological organism growing wings, breasts or legs. Real food has become scarce and is mostly enjoyed by the compound people. There are also too many natural disasters caused by global warming, chemicals and biological forms. The hardness of the times invokes a new kind of terrorism that uses computer technology and biological forms to awesome extents.

Through splicing, that is, combining genetic material, new biological forms have become a quite ordinary practise. New species are created not only for food and organ transplantation, but for mere fun and entertainment. Pets such

as rakunks who are a splice of raccoons and skunks are produced. Jimmy has a rakunk too. But his mother, who abandons the compound to join the underground resistance, liberates this pet rakunk. This underground resistance keeping in touch through electronic mails is an organization opposing the social order where only people with power and money are able to enjoy decent lives. Jimmy only sees his mother once in a protest movement in the television during the following years. He sees her for the last time when as a young man he is made to watch the video recording of her death execution by the CorpSeCorp officials to check his conformity to the system. Her farewell message to Jimmy, which he, chooses to twist wryly in his adolescent memory explains why she left:

Dear Jimmy, it said. Blah blah blah, suffered with conscience long enough, blah, blah, no longer participate in a lifestyle that is not only meaningless in itself but blah blah. She knew that when Jimmy was old enough to consider the implications of blah blah, he would agree with her and understand. She would be in contact with him later, if there was any possibility. Blah blah search will be conducted, inevitably; thus necessary to go into hiding. A decision not taken without much soul-searching and thought and anguish, but blah. She would always love him very much (O&C 61).

Jimmy then befriends Crake, the genius boy who is very different from the “words-person” which is the new term defining people who have social skills like Jimmy. The two adolescent boys spend all their spare times hooked to the internet playing computer games and watching porno. These computer games are morbid games evolved from the games of “Colonization” and “Civilization”s of today where the player has to raise an army and invade other territories. However the player also has to maintain a high level of scientific progress. The games of that Jimmy and Crake move along the same lines. The virtual reality takes over the real world creating player gods within the atmosphere of the play. Margaret

Atwood said in the interview in Guardian Hay Festival that she chose two adolescent boys as characters because adolescent girls would not play games such as “Barbarian Stomp”, “Blood and Roses” or “Extinctathon” with the same obsession. According to Atwood the girls would not be so keen in rearranging the world to one’s fancy. In these games one can rearrange the history letting the barbarians win or one can remove by strategy all the achievements of mankind. Every atrocity, disaster and violence are justified within the context of these games. Extinctathon, a game on the web, whose logo is “*Adam named the living animals, MaddAddam names the dead ones. Do you want to play?*” is as Crake finds out later a disguised communication portal for the underground resistance. Crake gets the idea to adopt codenames after extinct species and changes Glenn, his real name, to Crake after the red-necked Crake, an Australian bird. While they were surfing in the internet, they meet Oryx for the first time, an oriental little girl in a child porno who is later to become a major figure in their lives.

Oryx, whose story of poverty and sexual manipulation as a child told in detail, is not exactly presented as a victim. She grows into a witty and strong-headed beautiful woman who makes her way into the society of Jimmy and Crake. Both have a strong passion for her mixed with adolescent infatuation. Her name is never revealed. She is simply Oryx after the extinct antelope.

Crake moves on to crème-de la-crème Watson-Crick institute for the distinguished scientific geniuses, while the words-person Jimmy goes to a Martha Graham Academy for the mediocre. Jimmy visits Crake once in the Watson-Crick Institute and during this visit he finds out that Crake’s father had been killed for discovering and thinking of revealing that the Compound he worked for

was creating illnesses to make more money. This explains to some extent Crake's devotion to Jimmy as they both have parents who have opposed to the system. It is also the first time that Crake hints of his idea that if the civilization is destroyed, it will never be rebuilt mainly because natural resources such as surface metals have already been exhausted and technology has become so complicated that most people would not be able to follow the instructions.

Jimmy being a "words-person" does not have too many opportunities for employment. He writes advertisements for a small company while Crake moves on to the best compounds. The two later come together for the "Paradise Project" which is the turning point of the narrative.

Up to the Paradise Project, eugenics is a matter of individual choice and resources. There are firms, agencies, called "Infantade (a variation of infanticide), Foetility (a variation expressing the struggle for existence between the genes), and Perfectababe (the winning combination of genes)" in which the foetuses are formed and stored out of which the best combination of genes is allowed to exist. The best infant, plausible by the genetic material of the parents, is produced. As Jimmy wryly notes:

They'd have a few trial runs, and if the kids from those did not measure up they'd recycle them for the parts, until at last they got something that fit all their specs – perfect in every way, not only a math whiz but beautiful as the dawn. Then they'd load this hypothetical wonderkid up with their bloated expectations until the poor tyke burst under the strain (O&C 250).

In *Oryx and Crake*, social sciences are considered to be inferior with low job opportunities and payments. Since books have almost disappeared except in digital forms, people don't read any more. Being good with words, only count to

the extent that one is able to persuade people in any product's miraculous claims. So having a designed baby with scientific orientation is already an advantageous start in life than a baby born under natural circumstances.

But the pressing urgency for the diminishing natural resources and the increasing chaotic opposition that expresses itself in terrorist activities, the Compounds create the perfect breed of people that would eventually replace human beings. These new people are mostly human, with improvements from the animal world embedded in the organism. These new species would be beautiful, docile and cheap to maintain. Altered from ordinary human embryos, these people are sui generis and viviparous. The Paradise Project also develops a pill, "the Blysspluss Pill", a "sure-fire one-time-does-it-all birth control pill" which would stop the "haphazard reproduction". This pill marketed with miraculous slogans would sterilize most of the people in pleeblands before they had a chance to find out. The pill promised prolonged youth, protection against sexually transmitted diseases and increasing libido. So the future race of people would consist of these Paradise people. As Crake tells,

But with the Paradise method, there would be ninety-nine percent accuracy. Whole populations could be created that would have pre-selected characteristics. Beauty, of course; that would be in high demand. And docility: several world leaders had expressed interest in that. Paradise had already developed a UV-resistant skin, a built-in insect repellent, an unprecedented ability to digest unrefined plant material. As for immunity from microbes, what had until been done with drugs would soon be innate (O&C 304).

Crake has gone through a lot of work to ensure that these people will be docile, happy in their environment and better compatible with nature. He also has removed what he believed to be "features responsible for the world's current

illnesses (O&C 305).” Thus these people lacked the neural tissues, “the G-spot in the brain” that would create racism, hierarchy and territoriality. Crake has done his utmost to ensure that these plant-eating creatures with seasonal polygamous mating habits will lack the urge of competition, greed, possessiveness and aggressiveness, which the proponents of capitalism attribute to human nature. Being totally leaf and berry eating vegetarians, they do not have to hunt or cultivate the land. Their sexuality is aroused only at regular intervals. They undergo a change in colour and turn to a bright blue in the abdomen, a feature derived from baboons.

Since it’s the only the blue tissue and pheromones released by it that stimulate the males, there’s no more unrequited love these days, no more thwarted lust; no more shadow between the desire and the act. Courtship begins at the first whiff, the first faint blush of azure, with the males presenting flowers to the females – just as male penguins present round stones . . . the female chooses four flowers, and sexual ardour of the unsuccessful candidates dissipates immediately, with no hard feelings left (O&C 165).

Their body temperature is stabilised so they don’t need clothes. They have their self-healing abilities derived from nature like the purring of the cat built into their systems. The males’ urine repels wolvogs and pigeons, making them safe in a hostile environment. They do not need the social institutions and order of the contemporary man. They were bred not to consume since there was not much to consume left, unlike the people of the *Brave New World*. They were also not meant to think in “symbolisms, such as kingdoms, icons, gods or money.” Crake who thinks that “God is a cluster of neurons” sarcastically notes the following:

Of course the crank religions wouldn’t like it in view of the fact that their reason d’etre was based on misery, indefinitely deferred gratification and sexual frustration, but they wouldn’t be able to hold out long (O&C 295).

Thus every possible feature for increasing chances of survival has been added and the infancy is considerably shortened, maturity coming at the age of four. Ironically the life-span has been set at the age of thirty, at which the metabolism simply stops. This has been devised as a control mechanism for preventing the accumulation of knowledge and experience that might create leaders among the Crakers. Crake believes that leadership creates a chain, that follows the pattern such as “the leaders and the led, then the tyrants and the slaves, then the massacres (O&C 155).”

At the surface, the Paradise Project seems to be developed for progress of the human spirit, for exterminating crimes, violence and terror, issues that a utopian social reformer would support. But the main idea is there would be less people around, or none in pleeblands anyway. The selected few living in the compounds could enjoy more resources with the Paradise people fulfilling the services they were accustomed to receiving from the pleeblands.

Crake turns this project into a disaster by setting the BlyssPlus pill as a trigger to distribute a virus that destroys the mankind in general. Crake has made Jimmy immune from this disease. Oryx, the oriental little girl from the porno movie, has been located by Crake and employed in the Paradise Project. She was the first to work with the Paradise people. They only know and trust Oryx. Oryx teaches them a melange of eastern religious doctrines and self-survival principles. Thus the Paradise people respect life and nature and restore what they take from it back as soon as its function ends. Oryx has affairs both with Crake and Jimmy. Though Jimmy and Oryx have tried to keep it a secret, somehow Crake must have been aware of it. Crake believes that his creation can not last in such a world

that is violent and aggressive. He secretly develops the virus that is to extinguish mankind to allow the Crakers a life in peace and harmony where no one will molest them mentally and physically. He must have meant initially to continue a human race with Oryx and himself as the new Eve and Adam. But after he starts the catastrophic events, he kills Oryx and is killed by Jimmy.

Crake's and Oryx's deaths leave Jimmy alone with the Paradise people who he calls "the children of Crake". Oryx has made him promise that he will take care of them. He introduces himself as the Snowman, after The Abominable Snowman. He leads them from the compound to a park where, ironically he tries to fill them up with metaphysical stories, trying to destroy Crake's work.

But the people couldn't be happy, because of the chaos. And then Oryx said to Crake, Let us get rid of the chaos. And so Crake took the chaos, and he poured it away" Snowman demonstrates, sloshing the water off to the side, then turns the pail upside down. "There. Empty. And this is how Crake did the Great Rearrangement and made the Great Emptiness. He cleared away the dirt, he cleared room (O&C 103).

The Paradise people, though hardly human, mentally nullify some of Crake's most ambitious achievements like thinking in symbols whereas they were not meant to or tending to create leaders. Crake had tried to protect their naivenssté and innocence which differentiates him from the canonical mad scientist. When Snowman discovers the presence of human survivors, he is worried for the children of Crake because they might be regarded as "freakish, or savage, or non-human and a threat (366)." The book ends with an open ending as Snowman approaches the human survivors.

Oryx and Crake refers to the consequences of the current trends in the science of genetics. In the Festival, Atwood says that, dystopia refers to planet

Earth and does not make up things which are not out there already, classifying *1984*, *We*, *Brave New World* and *Oryx and Crake* within the same category. She claims that the increase in population, decrease in natural resources and genetic possibilities will somehow shift in her book's direction. According to a comment,

The present eugenic movement is one of distrust of nature, of lack of faith in great principles, of feverish haste to improve the world, or egotism in the assumption of a wisdom superior to nature. If it could have its way it would thwart and distort the spontaneous upward movement, and create an artificial race of hydrocephalous pygmies. Fortunately, its power is limited, and can produce only a ripple on the surface of society (Marouf, 127).

Oryx and Crake is involved in new eugenics, with the scientific notion of reducing man down to his genes and proteins, reducing nature to a subjugated phenomena and reducing metaphysics to crankiness while extolling science, unchecked and immoral science, over every other basic value. This science is profit-based and consumer oriented serving those with power and money. Although the Paradise People are charming, naïve and beautiful they have been initially created as a substitute for the ordinary man who will not consume the scarce sources and perform the duties that would have been assigned to them had Crake not interfered.

CONCLUSION

This thesis has focused on eugenics, which as a social movement and utopian ideal stresses the necessity of progress of humankind and its reflections in literary texts. Since Plato, there have been numerous thinkers trying to fit human reproduction into pragmatic and scientific frames for the realisation of a society which operates without friction for the good of all. Such a social order tends to limit the individual choice and free will. The study has aimed to show the use of eugenics in two ways.

One: as an instrument of current class discrimination, in which inequality in classes is further stressed by either justifying the existing prejudices as in old eugenics or

Two: as an instrument of creating further inequalities by supplying the necessary means to those with political and economic powers only, as in new eugenics.

Acting on the premise that utopias are actually forms of social reform programs, this thesis has attempted to demonstrate the rather inhuman implications of scientific utopias based on the idea of rational societies and progressive idealism. It further attempted to emphasize how the two literary texts under consideration of this thesis turn the positive applications of eugenics in ideal utopian states into negative ones.

Chapter two of this study, has focused on eugenics as a social movement which underlines its social Darwinist motives and objectives. Eugenics has been presented in the context of a determined pattern of utilitarianism, positivism and evolutionism, that is, progressivism. It has been demonstrated that reproduction rights of the individuals have been subjected to the limitations in respect to properness and fitness of the individuals to be brought up. Thus it is up to those in power to determine utilitarian purposes. The respective regression in the religious faith has resulted in the dissolution of solidarity and compassion for the fellow man. The ultimate belief in progress has supported, rather than improving the status of the ordinary man, the eugenic ambitions of creating a future superman. This thesis has indicated that the old eugenics, prior to Second World War, has lacked the adequate scientific background to justify the coercive application which its defenders sought. Finally, it has been concluded that the new eugenics has adequate scientific background through the advances in human genetics and maintains the same social reformative impulse to use it in controlling human heredity.

Chapter three of this study has focused on utopian eugenics depicted through works of Plato, H.G. Wells, Bernard Shaw and Nietzsche. How these works are influenced by the pattern of positivism, progressive development and utilitarianism has been presented in analogy to the eugenics as a social movement. It has then been discussed that Plato and H.G. Wells advocate the necessity of a functional class system while Shaw and Nietzsche advocate the necessity of breeding “supermen”. This chapter has brought out the inhuman perspective of utopian eugenics that its creators did not realize or chose to ignore.

Issues such as ovoviviparous reproduction of humans, abolished parenthood and longevity experiments have been examined in the context to the subject of the dystopias discussed in this thesis. Finally this chapter has drawn attention to the forms of ideal states which justify the application of eugenics. This ideal state is a form of meritocracy in Wells and a form of aristocracy in Shaw.

Chapter four of this study has discussed how the utopian eugenics has been distorted in a mirror image of the Platonic and Wellsian ideal society in Aldous Huxley's *Brave New World*. Such distortion of the ideal state has been presented in its essential motto, which is stability. Eugenics has been focused on as the essential factor in forming and sustaining the stability of the system in the *Brave New World*. The functional hierarchy of predetermined classes that are realized through eugenics is further maintained by psychological conditioning and chemical drugging. The function of the social order created through eugenics with the consumerist mass-production society is presented as the chief dehumanizing aspect of the *Brave New World*. The use of science and technology has turned into a means of controlling the individual. It has been argued that the eugenics and psychological conditioning has created a shallow cluster of people, an off-product of industrial motives, who are not capable of diagnosing their own torments. Finally this dilemma between the scientific hegemony of the *Brave New World* and ascetic, pagan and wild life of the Savage Reservation, represented by the debate between the World Controller and John Savage has been analysed to bring out the inhuman aspect of *Brave New World*.

Chapter five of this study has discussed the application of eugenics in Margaret Atwood's *Oryx and Crake*, emphasizing the influence of the new

eugenics which reduces man and other species to proteins and genes and reduces science to a means for power and money. This study has revealed how the creation of a perfect breed of new people to replace the undesired portion of the population is acting again on the premise of another ideal state. This new breed of people has been represented as a controversial matter while they surpass humanity in their naiveness they are also deprived of a lot of neurological tissue to be called exactly human. The catastrophic events leading to a bleak future where ending of the civilization, as we know it, have been connected to over-progressive science lacking the necessary morally preventive checks.

The overall conclusion is that eugenics, an idea initially stemming from man's power as the breeder of other species, has found a new meaning and strength with the advances in the science of human heredity. This consequentially has inspired the controllers of the societies into making use of eugenics to breed obedient and capable individuals. However its applications suggest that biological predetermination of human beings drive them away from the contemporary men, exalted by history, culture and tradition, reducing them to biological life forms, which can easily be manipulated for the personal and egotistic objectives of the rulers of society.

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