

SCIENCE AND SOCIETY IN *BRAVE NEW WORLD*

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Abstract

Brave New World, written by Aldous Huxley is well known novel of the modern English literature. It belongs to the dystopian genre of writing, which means that it portrays an undesirable or frightening society. Written between two world wars and influenced by the scientific advances of that era, it prophesied the use of science by totalitarian state to keep the society under control. The purpose of this paper is to analyze the brave new world society and its reflection in our modern society. Using various sources, mainly books, articles and essays from other authors, this study gives an analysis of the society which Huxley portrayed in his novel. It tells about the characters, structure of the society, its development and current affairs. As a conclusion, this paper shows that the society in *Brave New World*, judged by contemporary standards of human rights, is a totalitarian one and that the humans live in an oppressive regime where their individual rights are suppressed and punished.

Keywords: Feelies, Society, Reservation, Scientific, Soma, Utopia, etc.

Introduction

Aldous Huxley's *Brave New World* is a fascinating dystopian novel written in London in 1931, published in 1932. It is considered to be one of the greatest literary works of modern English literature. Set many years in the future, where people are conditioned and manipulated from the cradle to the grave, *Brave New World* is considered to be a warning of the danger of dehumanization. Huxley depicts a society which is supposed to be a perfect one. He draws a picture of the future including the misuse of political power, economic control, sciences and technology, biological engineering, mass consumption and the loss of individuality and ethical values as well.

This future describes a World State with a unified government which administers the entire planet, where science and technology have been allowed to progress unchecked. There are no moral or spiritual obligations and the good of the society is placed above individuality and freedom. The novel has many attractive themes that have to do with everyday life. By adding some key facts and novel's importance in modern literature, its related historical events in the time of its writing, we try to understand and give meaning to the environment in which the novel was written.

The structure of the society and how it is built is also observed in this paper, followed by an analysis how it is manipulated and entertained in order to make their people's lives satisfied and as pleasant as possible in order for them to conform to the rules and not be rebellious. If any of the members of the society doesn't conform to the preconditioning rules of the society, they face the suppression from their rulers and the society and the punishment ensues by banishing them from the society. After this analysis we come to the conclusion that brave new world is a totalitarian technocracy and oppressive society. Written almost a century ago we can see now that the brave new world no longer seems so fantastic or futuristic. Some aspects of society that are presented in the brave new world can be encountered in our modern world.

Important facts - From the very beginning, Huxley established his setting in the novel. He announced the time and the place of the story. The events of the story alternate between London and the Reservation. London represents civilisation, whereas the Reservation represents the primitive world as they exist under the rule of an imagined future one-world government called the World State. The time is 2540AD referred to in the novel as 632 years "After Ford", meaning 632 years after the production of the first Model T car.

Huxley's point of view in *Brave New World* is third person, omniscient (all-knowing). The narrator is not one of the characters and therefore has the ability to tell us what is on within any of the characters' mind. This ability is particularly useful in showing us a cross section of this strange society of the future. The technique reaches the extreme in chapter three, when we hear a babble of unidentified voices – Lenina's, Fanny Crowne's, Mustapha Mond's – that at first sound chaotic but soon give us a vivid understanding of this brave new world.

Protagonists of the story are Bernard Marx, Helmholtz Watson and John, whereas The World State and Mustapha Mond are antagonists. It reaches the climax when John incites a riot inside the hospital after being disappointed with a life in *Brave New World*. It ends with John isolating himself in a lighthouse where he punishes himself, after that having an orgy and then making suicide.

Utopia nad satire - *Brave New World* fits into a long tradition of books about Utopia, "an imaginary place or state of things in which everything is perfect", where everything is done for the good of humanity as a whole, and evils like war and poverty cannot exist. Utopia came to have a second meaning soon after Sir Thomas More used it – "an impractical scheme for social improvement" (Randić, 2010). "The *Brave New World* of Huxley's novel is not a "good place," and so it is not, in the strictest terms, a utopia. Huxley himself called his world a "negative utopia," the opposite of the traditional utopia. Readers have also used the word "dystopia," meaning "bad place," to describe Huxley's fictional world and others like it⁶⁸.

The second tradition was satiric, like Jonathan Swift's *Gulliver's Travels* (1726), in which both tiny and gigantic residents of distant lands were used to satirize the England of Swift's days. In *Brave New World*, Huxley clearly belongs in the satirical group. Soon he increased his targets, making fun not only of science but also of religion, using his idea of the future to attack the present. As in most works about utopia, in *Brave New World* people tend to represent ideas the author likes or dislikes. As many writers of utopian works, Huxley as well brings in an outsider, (John the Savage) who can see the flaws of the society that are invisible to other people there. The book became a serious warning that if we use science as an instrument of power, we will probably apply it to human beings in the wrong way, producing a horrible society.

⁶⁸ <https://www.cliffsnotes.com/literature/b/brave-new-world/about-brave-new-world>

Historical background - *Brave New World* was written in early 30s, after the upheaval of the First World War and before the World War II. British society was officially at peace, but the social effects of the Great War, as it was then called, were becoming apparent. Totalitarian states like Soviet Union and Fascist Parties gained power over the continent, and another war seemed to be on the horizon. Apart from this, huge advancement was made in science and the world has been industrialized like never before. Means of production were improved and thus more productivity led to more consumerism. Huxley took all these in *Brave New World* and made a World State, a totalitarian dystopia, which uses technology to trick its citizens into loving their slavery.

Although *Brave New World* is set in the future, it is truly a novel of its time. At a period of great change, Huxley creates a world in which all the present worrying trends have produced terrible consequences. Movement toward socialism in the 20s, for example, becomes, in Huxley's future, the totalitarian World State. Huxley's future vision, by turns witty and disturbing, imagines the end of a familiar, traditional life and the triumph of all that is new and strange in the modern world.

The structure of the society in *Brave New World* In order to evaluate the society of the *Brave New World*, it is necessary to sum up the main elements of this future society. The pillars of the society are community, identity and stability, which in fact make the motto of society of the Brave New World. In this society, there is no "real" individual – individual behaviour is one of the greatest dangers this model of society has to cope with. "When the individual feels, the community reels" (Huxley, 2007). One very important fact is the complete control of the development of each member of society. The most important means to achieve this are the Bokanovsky-Process, Conditioning - by making use of the rules of Pavlov, the drug Soma, the Sleepschool and Ford who is their god in this society.

The members of the given society are produced and given a place in the society in order to fulfil the special task they are given. There is no love, because this could lead to individual wishes and desires, but everyone can follow his sexual drives with people one wants to. There is no family life and no marriage; a relationship to only one person is strictly disliked and even forbidden, multi-sexual affairs are supported but the members are only allowed to have any relationships within their castes. This reinforces the stability of the hierarchy we can find in this society, because it hinders the members of the different castes from getting an intimate contact to other castes.

All citizens of the Brave New World are produced in bottles in the Central London Hatchery and Conditioning Centre. To do this, the latest technology, known as the Bokanovsky-Process, is used. This process makes possible the production of ninety-six identical embryos with the same genetic structure, which today we know it as cloning. According to Huxley, 'Bokanovsky's Process is one of the major instruments of social stability' (Huxley, 2007), since it helps determine the grades of the intelligence of the embryos, and thus create a special hierarchy in this Brave New World. The people there are subdivided into five castes. From the best, or the most intelligent, called the Alphas, to the underprivileged people, called the Epsilons.

The rigid castes system of Brave New World emphatically signals status, intelligence, and worth. To distinguish which cast certain people belong to, members of the same group wear identical clothes; Alphas wear gray, Betas mulberry or maroon, Gammas green, Deltas khaki, and Epsilons black. So the following hierarchical pattern is developed. Alphas and Betas are the most intelligent citizens in the society. They work as Directors in important factories, moreover, the Alphas plus work in the World Centre, and they have to deal with the stability of the society, or better to say, control it.

The Betas work as Directors in small factories or in the Central London Hatchery and Conditioning Centre. They are in fact the administration whose duty is to guarantee the basis of *Brave New World*. The other castes of the society produced by the Bokanovsky-Process are Gammas, Deltas and Epsilons, who appear to be less intelligent than Alphas and Betas. "The lower the caste the shorter the oxygen. The first organ affected was their brain." (Huxley, 2007). They work in the norm centre or in a lift and have only minor tasks which they have to fulfil. As Huxley says '...in Epsilons we don't need human intelligence' (Huxley, 2007). They are small, ape-like and underprivileged. Through biological pre-design, human beings have long since been stripped of their free will.

Science in Brave New World - The theme of *Brave New World* is not the advancement of science as such, but rather how this advancement affects human individuals. In other words, human biology – and human nature itself – could become the objects of scientific manipulation (Wesley, 2004). *Brave New World* portrays a future in which science is not the savior of humankind, but its conqueror.

At the very beginning of the novel the reader is confronted with the misuse of science. Instead of protecting family life and natural birth, humans are industrially bred in bottles on assembly lines in huge laboratories. The ovaries from females are surgically removed, kept alive in incubators, inspected for abnormalities and after that, artificially fertilized in glass boxes. Whereas the ova of the Alphas and Betas, the most intelligent caste in the World State and on top of the special society's hierarchy, remain in the incubator, the Deltas and Epsilons, the less intelligent and underprivileged, undergo the "Bokanovsky Process".

The genetic structure of the DNA is furthermore manipulated by adding alcohol, chemical additives or by depriving the embryos of oxygen, in order to determine the basic inherited characteristics of life. The Delta and Epsilon embryos, for example, are made nearly stupid by adding a high amount of alcohol to their blood surrogate, which causes brain damage. Not only is the intellectual capacity of an individual influenced by genetic engineering, but also the outward appearance. Hence, the lower castes in society are smaller and ape-like.

Obviously, genetic engineering and the "Bokanovsky Process" work as two pillars in the World State. *Community* is formed by the production of identical clones. *Stability* can be kept, because behaviour, skills and the grade of intelligence are conditioned and simultaneously predictable. The term *identity*, the third part of the World State's motto "Community, Stability, Identity", should actually be the nucleus and the wonder of the creation of new life, but in this world it is nothing more than a propagandistic motto or, if it exists, then only in the form of identification with the caste someone belongs to and as a result of genetic engineering. This conditioned identity furthermore ends in a kind of „perfection“ in one's lifetime by psychological conditioning.

Psychological Conditioning in Brave New World - How extensive the psychological conditioning is and how deep it is rooted in the minds of the individuals is illustrated in the words said by the "Director of the Hatcheries and Conditioning": "Till at last the child's mind *is* these suggestions, and the sum of the suggestions *is* the child's mind. And not the child's mind only. The adult's mind too – all his life long. The mind that judges and desires and decides – made up of these suggestions. But all these suggestions are *our* suggestions!" (Huxley, 2007).

From the moment of being born in the World State, the citizens are under the heel of the state's conditioning methods with contents according to their class. By "Pavlovian-style behavioural conditioning" and hypnopaedia, the World Rulers are able to form the identities of their dependents as required (Pears, 1998).

People in *Brave New World*, in fact, are manipulated even before their lives start. In order to prevent the unpleasant existence of any handicapped life forms all eggs are examined for abnormalities. Most of the eggs that passed this examination are multiplied in Bokanovsky's Process, which is actually "a series of arrests of development" (Huxley, 2007) using X-rays, cold and high doses of alcohol on the fertilised eggs stimulating it to bud, so that you get many eggs out of one. This all means that there is a biological mass production, where all qualities are controlled, and in this way the Bukanovsky's Process becomes "one of the major instruments of social stability" (Huxley, 2007).

Next step in manipulation, or control of reproduction in this society is the application of Podsnap's Technique on eggs, in order to shorten the process of maturity from 30 to 2 years. With this extensive pre-natal manipulation the fundamentals of the World State are forged: a society divided in classes without any possibility of movement within or between the castes is assured. In this society every single person – already before one is even born – has a special task and conditioning assures that he will be able to do his duty with the greatest possible efficiency. And what is most important, everybody will like his task. The childhood of each member of the civilised new world is a series of different manipulative attempts.

Neo-Pavlovian Conditioning is a variation of Ivan Petrovich Pavlov's conditioning of animals. In *The Brave New World* this method is used on children. But unlike the dogs the children are not confronted with pleasures but with odds. On a bright meadow the children are brought together with books and flowers. After a short period that gives them a chance to have a quick look at the books and then the conditioners activate a noisy alarm bell. Additionally the children are treated with electric shocks. Consequently children quickly get a natural antipathy of literature and nature and in future they will try to avoid those horrifying things. In order to deepen this hatred the procedure is repeated 200 hundred times and in the end one must confess: "What man has joined, nature is powerless to put asunder." (Huxley, 2007). In brief, Neo-Pavlovian Conditioning tells the children what to like and what to hate.

Entertainment - 'In *Brave New World*, people become happy by obtaining a lot of leisure, such as the 'consumption of mass-products, by doing sports like electromagnetic "Obstacle Golf", by frequent sexual encounters with changing partners, "the feelies", and of course the utopian wonder-drug "soma". All these institutions and means have been developed for the society to satisfy basic, human needs.'⁶⁹

In the society of *Brave New World* everything is done in order to satisfy people's needs. However, there is still a lot of time when people cannot be totally satisfied. This is when soma comes into play, especially with the people of the lower casts. Soma is one of the chief means of guaranteeing the inhabitants against any kind of destructive or creative emotional tension. The word "soma" could be derived from the Latin word *somnium* which means "the dream" or from *somnus*, "the sleep". If they feel sorrow, pain, anger, jealousy or other negative emotions the universal solution always seems to be soma. Soma keeps people away from dealing with their problems or having a critical look at them. Therefore life for *Brave New Worlders* was made emotionally easy. In short, people were saved from having any emotions at all.

Soma is also used for sick and dying people in hospitals, where patients get it big amounts in order to ease their suffering and pain, especially before death. However, the counter effects are there, so these patients cannot think clearly any more, and need this drug until they are dead. This is infact hoe people manage to escape from reality by taking soma. However, there are other drugs offered by the Internal and External Secretion Trust, in order to to keep people fit, young-looking and happy.

⁶⁹ <https://www.grin.com/document/106155>

So, soma in fact is considered to be the perfect replacement for religion and God.. People on the whole world consume the same drug and everyone has enough of it so there is no need for envy or hate. In fact, soma even calms your rage and makes you more tolerable and patient. “Christianity without tears – that’s what soma is.” (Huxley, 2007). Another form of entertainment in the *Brave New World* is the new form of cinema, named Feelies. In feelies in the *Brave New World*, the audience gets impressions conveyed by sense of touch and smell as well, not only visual and audio. At the beginning of the movie a scent organ spills a diversity of fragrances through the theatre and delights the audience by smells of rosemary, lavender or sandalwood and new-mown hay. After that a music machine produces sounds of synthetic music and warbling human voices that changes its heights every couple of seconds to fascinate the listeners.

Obstacle Golf, centrifugal bumble-puppy, escalator squash and Riemann-surface tennis are popular activities in the *Brave New World*. Obstacle Golf is based on electromagnetic technologies, which means that the metal ball rolls into the hole almost automatically. In this way, nobody ever loses, so fast feelings of success and no feelings of depression or disappointment are provoked. As far as relationships are concerned, there are no stable relationships in *Brave New World*, just short sexual affairs for mere fun. Already in their childhood the inhabitants of the *Brave New World* are indoctrinated with the state’s ideology. Therefore children are encouraged to play sexual games, in which they explore one another’s bodies. This game has been induced to lead them to an uncomplicated, natural relation to their bodies and to prevent any adult feelings of guilt concerning sex. The society of the *Brave New World* is loveless, because love between men and women and love within a family is taboo. Families do not exist anymore, because children are “decanted”, raised and educated by the state.

Pleasure and luxury – Prosperity in the *Brave New World* is assured by consumption. As long as people continue to consume in the mindless way they are used to do, employment for the world’s workforce is guaranteed. One might say that consumption was made use of to create a pleasant world with full employment and a lack of real spare time. It is clear that – even if the price was high – the new world knows no hunger or poverty. Even if only a member of the lowest caste everybody lives in satisfying living conditions. Money – although still existing – is obviously available abundantly. People enjoyed. Science allowed introducing fantastic new sports that required an unbelievable amount of technical equipment. The use of new transportation methods like helicopters or rockets gave people the possibility to travel everywhere they wanted to go. And after all, the entire world now was clean and lovely, but of course, at the price of culture and nature.

In this society, people lived as they wanted, behaved as they wanted, as they were obscene, believing that “everyone belongs to everyone else” (Huxley, 2007). Consequently monogamy and also marriages and families have been abolished. and polygamy has become absolutely usual in the *Brave New World*. This attitude towards sexuality, of course, would result in a tremendously increasing birth rate and therefore Ectogenesis and birth control was introduced. Consequently regulating population’s growth seemed to be unavoidable.

So the abolishment meant several improvements for the stability of the World State. First, the immediate conflicts occurring with families and love like perversions, madness and misery, the unwanted fruits of passion and the unfulfilled desires and the unhygienic and confining living conditions in tight homes were solved. Second, the World State had now the possibility to regulate births according to its wishes. Third, with the existence of families the duty to bring up children was handed to the state and therefore conditioning could be practiced to an unprecedented extent.

Conclusion - Written almost a century ago, *Brave New World* portrayed a society in the future where science and technology developed tremendously and encapsulated most of the society. People in Huxley's era experienced the industrial revolution and huge advancement in science. The possibility to be reproduced fast and in large numbers to the smallest details and still look the same was revolutionary. Science must have seemed as a miracle just as we perceive it today.

The Huxley's society is predestined scientifically and biologically to be divided in classes and conditioned through various methods which today we call them "brainwashing". Brainwashing is not a good term and it cannot be applied in today's society. Although, societies throughout history, have been divided in classes. We learn about these societies and the results are similar everywhere, people felt they were suppressed and raised against their superiors. In our modern world the division is between the rich and the poor, and same tune is played again. The rich are the elites (a small minority) and the poor are the society (working class – majority).

The majority thinks that this is not fair and that the current system is not working for them, thus we need change in society in order that we could have equal opportunities in all spheres of life and equal share of wealth. Even though human cloning is present, and science is way advanced than it was in Huxley's era, the science cannot help here. Who knows what the future brings. There are no relationships in *Brave New World*. There are no families and the humans are decanted. The worries of having a family and raising kids are unknown to the members of the Huxley's society. A world without a family makes the society less human.

What makes us human is the feeling of love, mercy, compassion, etc. which we experience in our family from the young age. In contemporary world the role of the woman has changed therefore many women do the same jobs as men, thus less time to care for the children. Children are brought up in independent nurseries. And even if parents would have their children conditioned in special schools, the efficiency is still questionable. One particular aspect of society that we can say that *Brave New World* and modern society have in common is consumption. We live in a capitalist society just as Huxley did, and the consumption is an important aspect of the economy. The economy needs a purchasing power in order to sustain itself. Without the purchasing power the economy fails. But, what makes the society in *Brave New World* differ from our world is "the conscription of consumption" (Huxley, 2007), which forces its citizens to meet certain quotas of consumerism in order to stimulate the economy.

The production of drugs by the pharmaceutical industries is widely present in modern world. But they didn't come up with the production perfect drug, like soma that makes people happy. Huxley believed in science making it someday possible to produce a perfect drug. However, today all drugs – even if they might have some positive effects illustrated in the book – still come along with massive damage for the body. Sigmund Freud used to give cocaine to his patients in order to cure their mental disorders. He even called it "miracle drug" (Klein, 2018).

Nowadays we know that it might have even deepened them. A perfect drug is most probably nonexistent. Furthermore a direct search for one like it is presented in the book would be beyond impossible due to its prohibition of consumption, production and research on mind-influencing drugs in most of the countries of the world, and the costs would be immense. *Brave New World* has become a synonym for the changes in society that come from the use of science. If it is going to become a reality in many years to come, no one knows, but reading it makes us wonder for the future and the progress of the human society. Science expanded its influence in our society and with that it expanded our imagination for the future, just as it inspired Huxley's imagination for the future.

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