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The Theme of “Man Playing God” in *A Clockwork Orange* and
Flowers for Algernon

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Z á s a d y p r o v y p r a c o v á n í :

First, using secondary literature and other types of theoretical (even theological) sources, the author of the BP should describe exactly how she will define and use the term "man playing God" in her work. Next, using her definition, a brief outline of important works of literature that feature these themes should be featured, especially how specific plot events, ideas and characters express different aspects of "man playing God." The following chapter should concentrate on the historical period of the 1950s and 1960s in terms of both actual scientific experiments on controlling behavior as well as how technology is represented in dystopian and other types of literary works. A very short biographical sketch and summary of the most important works of Keyes and Burgess should come next, with emphasis on the theme of "man playing God" in other works of theirs. Then the longest and most important part of the BP should be an analysis of the two chosen works using the tools defined in the earlier chapters. Finally a comparison and contrast of how the theme "man playing God" is approached in both works should be described. Other later literary works influenced by A Clockwork Orange and Flowers for Algernon may be compared and / or film versions of the two chosen works may be referred to.

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Abstract

The bachelor thesis focuses on human experimentation and particularly on the ethics of experiments performed for the purpose of changing human nature. This theme is expanded and illustrated by important dystopian works of literature as well as actual medical and psychological experiments. These findings are then used to analyze and compare the application of science and technology as portrayed in the novels *A Clockwork Orange* and *Flowers for Algernon*.

Key words

experiments, science, technology, nature, God, ethics, dystopia, Burgess, Keyes

Abstrakt

Tato bakalářská práce se soustředí na vědecké pokusy prováděné na lidech, zejména pak na etiku pokusů prováděných za účelem změny lidské povahy. Toto téma je rozvedeno a doloženo na významných dílech dystopické literatury, a zároveň na současných lékařských a psychologických pokusech. Získané poznatky jsou použity k analýze a porovnání uplatnění vědy a techniky zobrazené v dílech *Mechanický pomeranč* a *Růže pro Algernon*.

Klíčová slova

pokusy, věda, technika, příroda, bůh, etika, dystopie, Burgess, Keyes

Table of contents

Introduction	8
1. Definitions of “Man Playing God”	10
1.1. Religious Interpretation	10
1.2. Secular Interpretation	11
1.3. Cognitive Enhancement	12
1.4. Behavioral Modification	12
1.4.1. Aversion Therapy.....	13
2. Actual Scientific Experimentation	14
2.1. History of Research Ethics	14
2.2. Cognitive Enhancement	14
2.3. Behavioral Modification	16
2.3.1. Project MKULTRA	16
2.3.2. Teen Help Programs	16
2.3.3. Treatment of Homosexuality	17
3. The Theme of “Man Playing God” in Literature	19
3.1. American and British Literature until the 1950s	19
3.2. American and British Literature in the 1950s and 1960s	20
4. <i>Flowers for Algernon</i>	23
4.1. Author	24
4.2. Plot Overview	24
4.3. Reflection of “Man Playing God”	25
5. <i>A Clockwork Orange</i>	30
5.1. Author	31
5.2. Plot Overview	32
5.3. Reflection of “Man Playing God”	32
6. Comparison of <i>Flowers for Algernon</i> and <i>A Clockwork Orange</i>	38
7. Conclusion	43
Resumé	45
Bibliography	50

Introduction

The indisputable fact is that medical research is in our time considered as an essential part of human progress, and helps to move the border of our knowledge and abilities a little further. Furthermore, we all benefit from advances in medical research, for instance from the discovery of antibiotics or from having been vaccinated against diseases such as smallpox and polio. However, experimentation involving human beings, which is regarded as necessary for improvements in health and welfare, still raises ethical questions. The suspicion and distrust of some people stems especially from the fact that history has revealed also an unpleasant and dangerous side of human experimentation. An example of an unprecedented violation of fundamental human rights and medical ethics is the research performed by some physicians in Nazi Germany and other locations during World War II. The experiments were conducted without the informed consent of the patients, and the relationships between physicians and patients could be more accurately described as the relationships of researchers and their subjects. The main aim of this bachelor thesis is to analyze scientific research on humans and the morality thereof as portrayed in two dystopian novels, *Flowers for Algernon* written by Daniel Keyes and *A Clockwork Orange* by Anthony Burgess. Both works depict the effort of scientists to change human nature with the help of scientific procedures as well as negative consequences caused by such interventions.

This thesis consists of seven chapters. The first part examines the central term “man playing God” from both a religious and secular point of view. Focus is placed particularly on the use of cognitive enhancement and behavioral modification, which are the technologies portrayed in *Flowers for Algernon* and *A Clockwork Orange*. The next section explores the methods mentioned above in terms of actual scientific experimentation on human subjects. Moreover, this part also contains a brief history of the development of research ethics in the 20th century and presents some of the most important and influential international protocols on medical research. The following chapter concentrates on the outline of significant works of British and American literature that feature the theme of “man playing God” as defined in the previous parts. Special attention is paid to literary works from the period of the 1950s and 1960s, when *Flowers for Algernon* and *A Clockwork Orange* were published. The two following chapters are aimed at the analysis of the chosen works. Each

chapter includes brief biographical information about the author, a concise overview of the story and an analysis based on the findings explored in the theoretical part. The analysis deals mainly with the relationship between the main characters, Charlie Gordon and Alex DeLarge, and the scientists in charge of scientific experiment. Some works of literature, for instance Mary Shelley's *Frankenstein* and Huxley's *Brave New World*, along with the *Declaration of Helsinki*, a statement of ethical principals regarding human experimentation, are used as the tools of analysis. The sixth chapter is devoted to comparing and contrasting both works and to a summary of their common features.

1. Definitions of “Man Playing God”

1.1. Religious Interpretation

In Judeo-Christian traditions the term “man playing God” is applied to situations in which human beings are playing a role that is normally associated with a higher power. Jehovah or Yahweh has arranged a plan for the world and has put forward certain commands for humans to follow, and therefore it is morally wrong of “mere mortals” to, for example, manipulate the basic structures of life forms. (Erler 2010)

The first case of “playing God” refers to the Bible and the original sin of Adam and Eve. According to the biblical story, Adam and Eve were living happily in the Eden as long as they followed God’s guidance and obeyed his rules. However, the snake convinced Eve and Adam to eat the forbidden fruit which would give them forbidden knowledge – wisdom. God punished their disobedience by casting them out of the Eden and their sin passed on to future generations in the form of mortality. Another example from the Bible, the story of the Tower of Babel, portrays mankind which attempted to be closer to God and thus built a tower that could reach the heavens. God punished their pride by destroying the tower and scattered the people all over the world, confusing their languages. Michael D. Guinan, professor of Old Testament and biblical spirituality at the Franciscan School of Theology in Berkeley, claims that every human attempt to replace or imitate God is followed by a punishment and the consequences of such actions are often destructive: “When we violate our creaturehood, when we reject being image of God and try to play God, now, as then, we bring “death” (in the rich biblical sense) and brokenness into the world.” (2007)

However, in many particular cases interventions in some areas, for instance the applications of technology for medical purposes, are believed to be beneficial. Furthermore, the use of science and technology for the common good is for a lot of people not only ethically acceptable, but even a moral imperative for humans, and is positively advocated as a part of the good stewardship of the earth's resources for human benefit. (Baylis; Robert 2004: 4)

The turning point in the Renaissance perception of science as blasphemy against God came during the 17th century with Scientific Revolution. The Age of Enlightenment put an emphasis on human knowledge and observations instead of theological dogmas, and philosophers introduced the idea that rather than being “a subject to the whims of fickle Gods,”

humans themselves should influence nature. (Shuttleworth 2011) Reverend Alan Billing, director of the Centre for Ethics and Religion at Lancaster University, stated that in his view, playing God is “precisely what the human vocation under God is.” He claims that when Adam and Eve were expelled from the Garden, they had to make ethical decisions without God’s help, only on the basis of their own reason. Billing believes that in that sense, people are forced to play God all the time, which includes also making difficult decisions about medical research. (2008)

1.2. Secular Interpretation

The secular interpretation of the phrase deals with the allegation of interfering with nature, in a sense “all human activity that produces changes that otherwise would not have occurred.” (Macer 1990) This view is based on the presumption that we, as human beings, have the ability to modify and manipulate our environment to suit our needs and purposes, and in that sense, we are playing God. Nevertheless, at the other end of the spectrum are people who consider wisely-done interventions in nature as necessary. As the challenges of disease, poverty, environmental degradation and other issues appear more and more pressing, some scientists and government leaders are convinced that “playing God” is the only successful way of dealing with such problems. Darryl Macer, director of the Eubios Ethics Institute¹, supports the use of science and technology “in ways consistent with “good life” (eu-bios),” stating that:

The fact that we have practical requirements, such as to feed, house and heal people of the world, are major justifications for the pursuit of practical knowledge in any system of religion or philosophy that places a high value on human life. (1999)

Depending upon the situation, the context for the actions in which human beings have been accused of "playing God" may vary, and their interpretations could take on differing shapes. Among the most commonly discussed issues are tinkering with nature and introducing irreversible changes into the environment, deciding when to begin and end life, sex selection, eugenic testing, genetic engineering, making decisions about the fate of our fellow human beings, and taking advantage of

¹ The Eubios Ethics Institute is a nonprofit group that aims to stimulate international discussion of ethical issues.

(exploiting) one's fellow human beings (De Castro, Alvarez 2003). For the purposes of this paper, the two last actions listed above are relevant, dealing with manipulation and control of human beings and their behavior, and thus determining a person's destiny. These issues will be further developed and examined in terms of cognitive enhancement and behavioral modification.

1.3. Cognitive Enhancement

In accordance with the prediction that the twenty-first century is the century of neuroscience, scientists are recently developing more and more ways to alter brain functions, which can be used to enhance the cognitive sphere of healthy individuals as well as to treat people with mental dysfunction. (Farah 2012) Enhancement itself means the effort to make someone better than “well”; cognitive (intellectual) enhancement is then defined as “the amplification or extension of core capacities of the mind through improvement or augmentation of internal or external information processing systems.” (Bostrom; Sandberg 2009)

A very important aspect that must be considered when evaluating ethical side of cognitive enhancement is the distinction between therapy and enhancement. Therapeutic treatment serves as a way of correcting a disease or defect and thus brings an individual back to normal state. On the other hand, enhancement improves the health of individuals that otherwise functions at normal levels. (Moran 2011) In practice, it is often difficult to establish firm boundaries between therapy and enhancement, and such distinction could be also argued as practically insignificant. For example, someone with naturally poor memory could be after cognitive enhancement still worse than other person with a far better memory without intervention. Therefore, a cognitively enhanced person is rather defined as someone who has benefited from an intervention that improves his cognitive skills rather than someone with extraordinary high cognitive capacities. (Bostrom; Sandberg 2009)

1.4. Behavioral Modification

The second way of manipulation and control of human behavior is through the use of learning called classical conditioning, applied in the form of behavioral therapy. This technique is based on the assumption that people have learned to be the way they are,

and thus it is possible, under the right circumstances, to change their behavior by relearning.

1.4.1. Aversion therapy

The most powerful version of behavioral modification, in which the goal is to decrease or eliminate undesirable behavior, is called aversion therapy. An uncomfortable stimulus (causing a strong feeling of dislike or disgust) is paired with an undesirable behavior and this association leads to its reduction or elimination. (Coon, Miterrer 2010: 504) Behaviors that have been treated with aversion therapy include such addictions as alcohol and drug abuse, smoking, pathological gambling and sexual deviations. A variety of means have been used as aversive stimuli, involving most often chemical and pharmacological stimulants, but also electric shocks or different kinds of unpleasant noises or tastes. Treatment in the form of aversion therapy has generated numerous supporters among clinicians as well as the general public; its effectiveness and long-term benefits have been especially highlighted. On the other hand, some critics consider this approach morally unacceptable. Their view maintains that aversion treatment causes uncomfortable consequences like nausea and vomiting, and these effects sometimes lead to poor compliance with treatment, high dropout rates and also aggressive patients. (Encyclopedia of Mental Disorders/Aversion therapy)

2. Actual Scientific Experimentation

2.1. History of Research Ethics

Although there have been some attempts to create the rules of research ethics dating from the early 20th century, the first significant set of principles was the *Nuremberg Code* from 1947. The *Code* stated that certain types of medical experiments on humans are ethically acceptable when “kept within reasonably and well-defined bounds,” and contained ten ethical principles for physicians to obey when conducting research involving human subjects. (Elnimeiri 2008) Another important organization aimed at ethical obligations of physicians is called the *World Medical Association (WMA)*, established in 1947. The main goal of the *WMA* is the promotion of “the highest possible standards of ethical behavior and care by physicians, at all times.” One of the most important declarations adopted by the General Assembly of *WMA* is the *Declaration of Geneva* from 1948, which serves as a revision of the *Oath of Hippocrates*, the oldest formulation of physicians’ dedication to the humanitarian goals of medicine. The most complete policy statement of the *WMA* regarding human experimentation is the *Declaration of Helsinki*, originally adopted in 1964. The *Declaration of Helsinki* combines the ten developed principles stated in *Nuremberg Code* with the *Declaration of Geneva*, and reflects the changes in medical practice from the term “human experimentation” as described in the *Nuremberg Code*, using additional principles for medical research. The most notable change from the *Nuremberg Code* is a moderation of the conditions of the voluntary consent of human subjects, which has moved from “absolutely essential” to many exceptions, enabling that a consent should be obtained in certain cases by an independent physician, a legally authorized representative or by a special committee. These changes have caused that the violation of voluntary consent and other principles occurs quite commonly even nowadays, as can be seen in the following examples. (World Medical Association/Declaration of Helsinki)

2.2. Cognitive Enhancement

Some ways of cognitive enhancement have been practiced for years and are culturally acceptable and established. The most common examples of so called environmental methods are education and mental training, yoga, martial arts and

meditation. Other forms include caffeine, herbal extracts or a wide range of energy drinks that should “turbo-charge” the brain of consumers. By contrast, there are also more unconventional ways of enhancing our cognitive skills, involving drugs, gene therapy or even neural implants. All of these are regarded to be experimental at present and have caused serious concerns about their effects as well as issues of safety. (Bostrom, Sandberg 2009)

A frequently asked question in recent years is whether it would be possible to treat someone who doesn't meet the diagnostic criteria for a psychological disorder but simply suffers from poor reasoning skills. (Moran 2011) As far as the scientists can tell, IQ is near impossible to improve, no matter if in healthy or mentally retarded people. Arthur Jensen, professor of educational psychology at the University of California, stated that all interventions in the 1960s that were aimed at increasing intelligence failed, and the failure still remains valid and unchanged today. The explanation of such failure can be partially explained by a principle called Algernon's Law, named after a mouse from the novel *Flowers for Algernon*, which dies shortly after its intelligence has been radically increased. Famous advocate of artificial intelligence Eliezer Yudkowsky states in his essay about Algernon's Law that the reason why all the experiments failed is due to the fact that “any simple major enhancement to human intelligence is a net evolutionary disadvantage.” In simplified words, the abbreviation TANSTAAFL (there ain't no such thing as a free lunch) serves as an explanation that if we improve one aspect, another could get worse:

Often, if you use a drug or surgery to optimize something, you will discover penalties elsewhere. If you delay aging and length lifespan as is possible in many species, you might find that you have encouraged cancer or - still worse - decreased reproduction [...]. If you try to enhance attention with an amphetamine, you destroy creativity, or if the amphetamines reduce sleep, you damage memory consolidation or peripheral awareness; or improving memory (which requires active effort to maintain also increases sensitivity to pain and interferes with other mental tasks; if a mouse invests in anti-aging cellular repairs, it may freeze to death, and so on.

The enhancement of IQ itself seems to be a great challenge. Not only do scientists know the potential risks that could be caused by such intervention, but there are no

techniques whatsoever to make a person a few factors or only few percentage points smarter. (gwern/Algernon's law)

2.3. Behavioral Modification

2.3.1. Project MKULTRA

From 1951 until 1972, the CIA conducted mind control experiments based on behavioral modification that were tested on their own employees, military personnel, doctors, prisoners and mentally ill patients. The first projects which were known as Bluebird and Artichoke later transformed into the famous Project MKULTRA, established to counter Soviet and Chinese research in the field of brainwashing and interrogation techniques. (Heal-online/Mind control)

Project MKULTRA (1953-1966) was concerned with the study of substances that would enhance the ability of person to withstand torture and coercion during interrogation, substances which would produce physical disablement such as paralysis, and methods and materials which would cause amnesia for events preceding and during their use. (McGonigle 1999) Researchers involved in the project used various types of drugs such as LSD, heroin, morphine, marihuana and sodium pentothal in order to manipulate and alter brain functions, usually without the awareness or voluntary consent of the human subject. Some eight thousand pages of previously undisclosed documents that were located in 1977 have proved that at least two people died as a result of experiments and others have suffered impaired health as a consequence of the testing. (Montserrat-Howlett 2009) For instance, it is estimated that between 1955 and 1958 LSD was secretly administered to more than a thousand U.S Army soldiers. The United States Army Intelligence Corps denied the charge of a violation of the *Nuremberg Code* and refused the responsibility for administration of LSD to soldiers, claiming that "in intelligence, the stakes involved and the interests of national security may permit a more tolerant interpretation of moral-ethical values [...]" (McGonigle 1999)

2.3.2 Teen Help Programs

In the 1970s, a few years after the end of projects run by CIA, behavioral modification methods were introduced, alike in *A Clockwork Orange*, in order to

achieve the conversion of problem teens into “decent” citizens. Two schools in Mexico and in the Czech Republic that were operating under the name of the *Teen Help* program have been already shut down because of suspicions of abuse and concerns about children being illegally confined. Nevertheless, such programs are still operating all over the world. The *World Wide Association of Specialty Schools*, also known as *Teen Help*, is running seven rehabilitation programs including 950 children at the age of 12-18. The programs involve a strict code of conduct and harsh punishment for violations. The most important part of the therapy is a group seminar, where patients discuss their personal issues, including above all “trust, choices, responsibility, anger and especially self-esteem.” Yet, the methods have been criticized by a number of former participants as well as by some families of children involved in the programs. For instance, Dr. William Sargant directly compared the techniques used at the programs for problem teens to the brainwashing procedures used in Communist China and Stalinist Russia. He argues that the behavior modification program industry is based on the same phases as the original brainwashing procedure, namely the phase of physical control, the phase of intense indoctrination, the phase of crisis and breakdown and finally the implantation of new behavioral patterns. (Heal-online/Mind control)

2.3.3. Treatment of Homosexuality

Aversion therapy, along with other kinds of biological treatment, was for some time commonly used in order to cure behavior disorders, mostly alcoholism and sexual deviation. In the first part of the 20th century, the idea that homosexuals should be “re-oriented” with the help of science and medicine was particularly popular. After pressure from gay rights campaigners, aversion slowly died out in the 1970s. (Rachman; Teasdale 1969: 12)

In the 1950s and 1960s the men convicted of homosexuality experienced techniques involving electric shocks, hallucinogenic drugs and brainwashing. A lot of men volunteered for the treatment under the threat of prison, some were sentenced to therapy by court and some also volunteered in order to get rid of their “disease.” The participants were usually shown pictures of naked men and at the same time given an electric shock or drug to make them sick. As a form of reward after the therapy, they were shown pictures of naked women or even taken out on dates with nurses. Such

practices caused numerous injuries and even death. (Wheeler 2003) For instance, in 1962 was twenty-nine year old Captain Billy Clegg-Hill arrested and sentenced to six months of aversion therapy. He died after three days of treatment, according to doctors of natural causes. It was revealed many years later that he died from a coma resulting from injections of apomorphine, a strong vomit-inducing drug, while he was forced to look at pictures of men, in order to associate same sex desire with nausea and vomiting. (Montserrat-Howlett 2009)

3. The Theme of “Man Playing God” in Literature

3.1. American and British Literature until the 1950s

The theme of “man playing God” can be found in many works of literature, particularly in those connected with the genre of science fiction. As the first work introducing this genre and at the same time also the theme of “man playing God” to literature is regarded Mary Shelley’s *Frankenstein*, written as far back as 1818. *Frankenstein* is called a gothic novel, a type developed at the turn of the 18th century, one characterized by freedom of thought and the belief in progress and technology. Shelley used some recent technological findings of her time to create a work dealing with the issue of conflict of science versus nature. (Hamberg 2011) The story of a man charmed by natural science and determined to “explore unknown powers, and unfold to the world the deepest mysteries of creation,” depends upon the defiance of God. (Shelley 1994: 46) After all, the subtitle *The Modern Prometheus* refers to the figure in the Greek mythology who betrays the gods by disobeying the rules and bringing the fire to people, whereas Frankenstein usurps divine powers by creating life himself. (Bushi 2010)

Another important writer dealing with the theme of scientific experimentation and the desire of human beings to “play God” is H.G.Wells (1866-1946). Despite the fact that Wells was an advocate of science and technology, his science fiction writing served mainly as a warning of possible horrors stemming from violent disruptions of natural processes. He described the creation of a new species through biotechnology and genetic engineering, but also rejected scientific arrogance and the lack of social conscience and responsibility. In *The Invisible Man* (1897), Wells portrayed the story of a scientist who, after using himself as the subject of scientific experimentation in pursuit of discovering the key to invisibility, experiences the destructive effects of his action. Unable to reverse the results, he slowly goes insane. Wells’ novel *The Island of Dr. Moreau* (1896) depicts a mad doctor experimenting with life forms and creating beings that are half-human and half-animal. Rejecting any belief that “mother nature knows best,” Moreau wants to “conquer nature, to bend it to his will [...], while admitting that he has never troubled himself about the ethics of the matter.” (Best, Kellner 2001; Liukkonen 2008)

Aldous Huxley (1894-1963) and George Orwell (1903-1950) followed in the footsteps of Wells and in their works showed not only the impact of both technology and behavioral experimentation, but dealt also with social and psychological methods of control. Huxley's famous dystopian novel *Brave New World* (1932) presented a world of genetic engineering, cloning and intense behavioral conditioning, in which technology serves as means to create a society independent of nature but also erase all features that make human beings human. Huxley develops the idea that apart from cloning and bioengineering, there is possibly an even more effective (and dangerous) way to shape and manipulate human beings – mind control. People are conditioned in their sleep in order to make them consume and accept given rules, children are objects of aversion therapy, which serves to condition them against liking books. (Pearce 2008) Also Orwell's *1984* (1948) describes a society where people are psychologically conditioned and brainwashed to think according to a certain ideological model, and where the role of God is taken over by Big Brother:

Thoughts and actions which, when detected, mean certain death are not formally forbidden, and the endless purges, arrests, tortures, imprisonments, and vaporizations are not inflicted as punishment for crimes which have actually been committed, but are merely the wiping-out of persons who might perhaps commit a crime at some time in the future. A Party member is required to have not only the right opinions, but the right instincts. (Orwell, 2000: 185)

3.2. American and British Literature in the 1950s and 1960s

Science fiction and literature in the 1950s and 1960s in general was deeply influenced by the horrors of World War II, and especially the invention of the atom bomb caused that “the dilemmas confronting scientists and technicians became universal concerns.” (Feenberg 1995: 43) Both World War II and the Cold War had shaken the confidence in science, technology and progress, which paradoxically led to what is now called the “Golden Age” in science fiction. As a result of the Cold War and the competition for who would put the first man in space, many science fiction authors as Isaac Asimov, Arthur C. Clarke and Robert Heinlein focused on the theme of exploring the universe, space travelling and alien worlds. More attention was also paid to the social sciences as anthropology, psychology and political sciences, thus science fiction has become more concerned with the complex psychological development of characters, giving rise to a trend known as “soft

science fiction.” (Duvall 2012: 60) Most importantly, there was a big shift from early science fiction, in which nature was exploited by scientists and technicians, to the modern concept in which nature is under the control of humans, indicating even the possible domination of some human beings over others. Scientists are often portrayed as a combination of knowledge, power and evil, and are not credited with new discoveries but mainly blamed for their misuse. (Feenberg 1995: 48)

The theme of “man playing God” in the sense of manipulation with human beings in order to make them as flawless as possible, sometimes against a person’s will, is well portrayed in Charles Beaumont’s short science fiction story *The Beautiful People* (1952). An 18-year-old girl, Mary, lives in a society where things like sleeping, eating or reading books are considered as a waste of time and everything that matters is external, artificially created appearance. When Mary refuses an enhancement procedure called Transformation, which is used to make all people beautiful according to the same standards, she becomes literally a public enemy. The society does not accept her wish to stay natural and imperfect, and makes every possible attempt to force her into the procedure. The story reveals the common post-Enlightenment idea of the conflict between science and nature, as well as the desire of human beings for perfection, even if it means making important decisions about other people’s destiny. (Best science fiction stories/The Beautiful people)

Another short story dealing with not accepting the natural state of things is *Harrison Bergeron* (1961) by Kurt Vonnegut. Although it presents the same issue of the lack of free will and the fight of society versus individual as in *The Beautiful People*, the story itself is based on a rather opposite problem. The gifted and talented people are forced to wear handicapping equipment to make them more “average” and equal. People with above normal intelligence are made to listen to unpleasant noises in order to prevent them from “taking unfair advantage of their brains,” ballerinas must wear weights to counteract their dancing skills and pretty people must hide their faces behind masks and big glasses to hide their good looks. (Vonnegut 1961:1)

Control of human beings and their fate could be also found in the science fiction novelette *The First Man* (1960) by Howard Fast. It portrays a scientific project in which a group of gifted children is raised in an artificially created environment and thus turned into super humans who are both physically and intellectually superior to

“normal” people. The scientists are well aware of the risks they undertake and realize they must follow certain rules and limits:

We are tampering with human souls - and perhaps even with human destiny. But if we go to create man, we must be humble. We are the tool, not the craftsman, and if we succeed, we will be less than the result of our work." (Fast, 1960)

The story does not show the peril of using science and “playing God” simply in order to discover the limits of human abilities, but the main goal is to show the desire and hope to improve a society where “we kill, we torture, we hurt and destroy as no other species does.” (1960)

4. *Flowers for Algernon*

The original short story *Flowers for Algernon* was published in 1959 in *The Magazine of Fantasy and Science Fiction*. The well received story won a Hugo Award for the best science fiction story of the year and was adapted as a television play *The Two Worlds of Charlie Gordon* two years later. In 1966 Keyes published the expanded novel version of the story, which won the Nebula Award, given every year by the Science Fiction and Fantasy Writers of America. In 1968 was released a film adaptation of the novel, *Charly*, and the actor Cliff Robertson won the Academy Award for his portrayal of the main character. *Flowers for Algernon* has been among other media also adapted as a stage play and a musical, *Charlie and Algernon*, performed for instance at the Queen's Theater in London and on Broadway. (danielkeyesauthor.com)

4.1. Author

Daniel Keyes was born in New York in 1927. After receiving a B.A. degree in psychology at Brooklyn College, he was briefly employed as an associate fiction editor and then taught English at high school. In 1961, Keyes received an M.A. degree in English and American literature and left New York to teach creative writing at Wayne State University and later at Ohio University, where he was appointed Professor of English and Creative Writing. Apart from his most famous work *Flowers for Algernon*, Keyes has published other novels, for instance *The Touch* (1968) and *The Fifth Sally* (1980), the latter examining the issue of multiple personality disorder. The same theme has also appeared in the two of his nonfictional books, *The Minds of Billy Milligan* (1981) and *The Milligan Wars: A True Story Sequel*, about a first person in history who was acquitted of major crimes on the grounds of having a multiple personality. In 2000, Keyes published his memoir *Algernon, Charlie and I: A Writer's Journey*, in which he described the process of creating *Flowers for Algernon* as well as events that followed its publication. (danielkeyesauthor.com)

4.2. Plot Overview

Flowers for Algernon reveals the story of Charlie Gordon, a 32-year-old man with very limited intelligence who is determined to become smarter. Due to his high

motivation and enthusiasm for learning, Charlie is chosen by two scientists, Dr. Strauss and Professor Nemur, as the first human subject to test a new technique for increasing intelligence. After undergoing a surgical experiment, Charlie's IQ sharply increases, and reaching a cognitive capacity of a genius, he ironically surpasses the doctors who have performed the operation. Charlie starts a new life – he leaves his menial job in a bakery, starts a romantic relationship with his former teacher Alice and devotes himself to his own research on the IQ experiment. However, it is just his high intelligence that causes his disappointment and disillusionment. He realizes that the friends and doctors he had trusted only took advantage of him, and his relationship with Alice is disrupted by his emotional instability. Most importantly, the effect of the experiment turns out to be temporary, since the first subject, the mouse Algernon, slowly loses his intelligence and dies. Despite his desperate attempt not to lose his obtained knowledge, Charlie in the end returns to the same intellectual level as he was before the operation.

4.3. Reflection of “Man Playing God”

The novel *Flowers for Algernon* provides an example of the use and abuse of science, stemming from the attempt to make a human being better than it is by nature. The tragedy of the main character, Charlie, is caused by the limited understanding of the scientists, along with their desire to fix “one of nature's mistakes,” taking for granted that intelligence is the defining aspect of the value of human life. (Keyes 2002: 112) Keyes himself stated that the novel is based on “the pathos of a man who knows what it is to be brilliant and to know that he can never have the things that he tasted for the first time.”(2000: 68) This notion is supported by the fact that it is not Charlie himself who caused the downfall but the flaw in an experiment carried out by men who were intentionally “playing God,” and thus changed another person's destiny.

Professor Nemur's conduct of Charlie within the cognitive enhancement experiment indicates that he is not motivated entirely by the thought of helping Charlie and others, but to a large extent also by acquiring fame and admiration. Owing to Charlie's increasing popularity, Nemur becomes jealous of the attention his “guinea pig” is getting, and as Charlie notices, often points out that it was him who made him a real human. (Keyes 2002: 101) However, the crucial moment when Charlie fully

realizes his role in the project occurs during a science conference. Charlie, together with Algernon, is presented as merely the great success of his “creators.” Nemur is openly boasting of his skills and makes a clear point that without him, Charlie would have remained an inferior being:

When Charlie came to us he was outside of society, alone in a great city without friends or relatives to care about him, without the mental equipment to live a normal life. No past, no contact with the present, no hope for the future. It might be said that Charlie Gordon did not really exist before this experiment.” (2002: 112)

Moreover, Charlie notices that not only the scientists directly involved in the experiment, but all the experts present perceive him as a mere subject “who had no existence outside the laboratory.” (2002: 112) Not long before the conference takes place, Charlie has also acknowledged that he is no longer welcomed in the bakery he once frequented, since his former friends could not bear the thought that they have suddenly become “inferior to the moron.” (2002: 74) Science fiction critic Thomas D. Clareson called this a double edged theme of the novel, by which Charlie suffers both from “the unthinking brutality with which society treats the mentally retarded and the terrible isolation of soaring intellect,” and thus it is very difficult for Charlie to find a place to belong. (1990)

Clareson also expressed the idea that Keyes “revitalized the myth of Frankenstein” by projecting Mary Shelley’s creature into the character of Charlie Gordon. (1990) In both works, there is an effort of scientists to “penetrate into the recesses of nature” and to shape it according their wishes. (Shelley 1994: 46) Frankenstein creates a monstrous, though gentle living being, but he is soon horrified by his actions and abandons the creature. The unhappy monster becomes embittered after being resented by other people for its appearance and starts to take revenge on his creator. Likewise, Nemur and Strauss enable Charlie to experience the life he has always dreamed of, the life where he would “have lots of friends who like me,” but after finding out that his state is only temporary, it is Charlie alone who has to deal with the consequences of their intervention. (Keyes 2002: 9) Furthermore, instead of his wish to gain new friends, he loses his old ones and is even reproached by Nemur for developing from “a likeable, retarded young man into an arrogant, self-centered, antisocial bastard.” (2002: 172) On the other hand, despite Charlie’s tense

relationships with Nemur and Strauss, he believes that their technique, if improved, can still be used:

If I could be made into a genius, what about more than five million mentally retarded in the United States? What about the countless millions all over the world, and those yet unborn destined to be retarded? What fantastic levels might be achieved by using this technique on normal people. On geniuses? (Keyes 2002: 139)

One possible interpretation is that Charlie, as well as Frankenstein, might for a while become a “crazed scientist,” obsessed by the idea of ‘playing God’ with human intelligence. (Clareson 1990) His motivation, unlike Nemur’s and Strauss’, is however caused by his experience of a man who “has lived in both worlds” and by his unprecedented knowledge. (Keyes 2002: 139) What both Keyes and Shelley imply is that it is the lack of ethical conscience along with the inability of the scientists to take back or rectify their actions that gives rise to failure and the downfall of all involved.

Another parallel can be found in *The Island of Doctor Moreau* by H.G. Wells, this time between the characters of Professor Nemur and Doctor Moreau. Fascinated by his power to interfere with nature, Moreau is trying to transform animals into humans, determined to make scientific progress at any cost. Best and Kellner defined as the main theme of Wells’ novel the conflict within a human being capable of reason but still obsessed with the idea to “become God-like in his power to design species.” (2001) Interestingly, one character from *The Island of Doctor Moreau*, journalist Prendrick, compares Moreau to Dr Frankenstein, pointing out his scientific arrogance and devotion to “man-making,” which are the exact traits that Charlie perceives in Nemur’s conceited behavior towards him:

You’ve boasted time and again that I was nothing before the experiment, and I know why. Because if I was nothing, then you were responsible for creating me, and that makes you my lord and master. You resent the fact that I don’t show my gratitude every hour of the day (Keyes 2002: 172)

The difference is that whereas Nemur refuses the accusation of having exploited Charlie in order to “reap the honors,” Moreau admits directly that he has never cared about the consequences of his actions and has “gone on, not heeding anything but the question I was pursuing [...]. (Keyes 2002: 172, Wells 1896)

Two minor characters from the book, nurse Hilda and Charlie's coworker from the bakery Fanny Birden, use direct references to Bible and raise religious objections to the experiment. Hilda appears in Charlie's life only for one day, taking care of him immediately after the cognitive enhancement performance. She admires Charlie's courage to have undergone the experiment, but at the same time compares the operation to the original sin of Adam and Eve, who disobeyed God's command and acquired forbidden knowledge. Hilda is the first person expressing a negative attitude towards the operation and tells Charlie that if God wanted him to be smart he would have made him that way. Charlie is scared by the idea that he has possibly made God angry and is confused by Hilda's advice to pray and ask God to forgive him for what the scientists have done, even doubting his decision to take part in the project. Due to Hilda's criticism Nemur and Strauss, who were in her opinion tampering with things they have no right to she is immediately replaced. Charlie's new nurse informs him that Hilda was transferred to another part of the hospital. (Keyes 2002: 12) The second person that considers the experiment an open defiance against God is Fanny Birden. After Charlie becomes more intelligent, Fanny is the only person at the bakery who doesn't sign the petition for Charlie's notice, when other co-workers refuse to work with Charlie due to his changed behavior. On the other hand, Fanny admits that she preferred Charlie when he was an ordinary and dependable man, remarking that there is something "strange" about him. Although she doesn't know exactly what has happened to Charlie, like Hilda, she expresses the opinion that it was not right:

If you'd read your Bible, Charlie, you'd know that it's not meant for man to know more than was given to him to know by the Lord in the first place. The fruit of that tree was forbidden to man. Charlie, if you done anything you wasn't supposed to – you know, like with the devil or something – maybe it ain't too late to get out of it. Maybe you could go back to being the good simple man you was before. (2002: 75)

At this point, it would be interesting to recall the words of Alan Billing (from 1.1), who maintains quite a contrary view, claiming that the fact that God expelled Adam and Eve from Eden was in fact a positive thing, because people have since then been forced to use their "faculty for moral discernment – their reason." (2008) Charlie as well disagrees with Fanny's conviction and responds in a very different way than he did to Hilda. He refuses to have done anything wrong by enhancing his intelligence

and tries to explain to Fanny that he is like a “man born blind who has been given a chance to see light.” (Keyes 2002: 75)

Using the World Medical Association’s *Declaration of Helsinki* (1964) as the main criterion, the whole experiment can be examined through analyzing the practical steps taken in order to perform the cognitive enhancement procedure. Firstly, Dr Strauss and Professor Nemur conducted the surgery of Charlie on the basis of a thus far successful experiment on an animal, the mouse Algernon. In this case, they followed the principle which states that medical research involving a human subject should be based on laboratory and animal experimentation. The doctors, however, subsequently ignored the requirement not to continue in research “unless they are confident that the risks involved have been adequately assessed and can be satisfactorily managed.” (World Medical Association/Declaration of Helsinki) Being well aware that the overall results and permanency of the intervention on Algernon would only be evident after an extended period of time, the scientists performed the same surgery on Charlie soon afterwards, admitting that “we decided to risk it with you because we felt there was very little chance of doing you any serious harm [...]” (Keyes 2002: 152)

Secondly, the *Declaration of Helsinki* requires that “for a potential research subject who is incompetent, the physician must seek informed consent from the legally authorized representative. (World Medical Association/Declaration of Helsinki) Taking into consideration Charlie’s mental state, the consent for the operation was obtained from his sister Norma, who would, as Charlie later ironically remarks, just as well give the approval for his execution. Despite the fact that Charlie keenly agrees with the operation, even after being told the possible complications, it is obvious that as a mentally disabled person, he is unable to fully comprehend the situation. When Charlie finds out that his new cognitive abilities are temporary and Nemur tells him that they tried to explain this to him in the beginning of the project that such a situation might occur, Charlie responds: “I had that written down in my progress reports, at the time,” [...] “though I didn’t understand at the time what you meant by it.” (Keyes 2002: 152)

It is important to realize that *Flowers for Algernon* does not take a fairly negative attitude to scientific progress itself. The character of Doctor Strauss could be to some

extent seen as a defender of science, stating the fact that most interventions necessarily involve also a certain risk:

No one can ever know in advance if a project is going to result in something useful. Results are often negative. We learn what something is not – and that is as important as a positive discovery to the man who is going to pick up from there. At least he knows what not to do. (2002: 170)

Charlie himself, though suffering the consequences of the failed experiment, acknowledges that “there are so many doors to open” and is eager to undertake his own research to help others. (2002: 139) As has been written earlier, he does not condemn science for what has happened to him but blames the researchers for their conduct. By saying that “all too often a search for knowledge drives out the search of love,” Charlie expresses a theme that resonates throughout the whole book. The novel challenges the belief of those like Nemur, who are persuaded that “someone with an I.Q. of less than 100 doesn’t deserve consideration.” (2002: 172) Keyes emphasized the importance of empathy towards other people and demonstrated that even though there is no direct violation of legally set principles, the ethics of medical research that involves humans on both sides can be never absolutely guaranteed. (Reynolds 1999)

5. *A Clockwork Orange*

A Clockwork Orange was first published in Britain in 1962, receiving rather cold reactions from reviewers. The book had a better reception the same year in the US, where the novel was released without the last chapter. The shortened version of the story has become more known than the unabridged English version, since Stanley Kubrick used the US text when making the popular 1972 book adaptation of *A Clockwork Orange*. Both book and film became a subject of great controversy and were accused of being “an incitement to violence.” The book disappeared from many libraries, and Kubrick for a time even withdrew the film from distribution in Britain. Burgess himself was not content with Kubrick’s conception of *A Clockwork Orange*, which lacks the original book’s “moral integrity” and in 1987 produced his own dramatic version of the novel, including its final chapter. *A Clockwork Orange* was also dramatized by the Royal Shakespeare Company in 1990 and in 2005 was included in the *Time* magazine’s list of the 100 best English-language novels since 1923. (Morrison in Burgess 2000: xvi-xxi)

5.1. Author

Anthony Burgess was born in 1917 in Manchester and studied English at the local university. He was drafted into the army in 1940 and after demobilization worked as a college lecturer and a grammar school master. From 1954 to 1960 Burgess was a colonial education officer in Malaya and Borneo, where he started writing his early work *The Malayan Trilogy*. In 1959 he was diagnosed with an inoperable brain tumor and was given less than a year to live. As a result of that Burgess became a full time writer in order to insure his wife’s financial security. However, the doctors’ prognosis proved wrong and Burgess went on to write over thirty novels, including his best known novel *A Clockwork Orange* (1962) and other works, for instance *Nothing Like the Sun* (1964), *Tremor of Intent* (1966) and *The End of the World News* (1982). Until his death in 1993, Burgess among other works composed three symphonies and over 150 other musical works, produced several language studies and translations from various languages, and wrote numerous reviews and newspaper articles. (anthonyburgess.org)

5.2. Plot Overview

The story of *A Clockwork Orange* takes place in the future and traces the life of Alex de Large, a fifteen-year-old boy who loves classical music and extreme violence. As a leader of a teenage gang of hooligans, Alex spends nights on street, enjoying robbing, beating and raping. One evening, after breaking into a house and accidentally killing an old woman, Alex is betrayed by his alleged friends, arrested and sentenced to fourteen years in prison. Two years later, Alex is chosen as the first candidate for the Ludovico technique, an experimental treatment for violent behavior introduced by government in order to cut down on crime. Alex is injected with a substance that brings on extreme nausea while being forced to watch violent movies accompanied by classical music. Owing to the fact that any thought or scene of violence makes Alex sick, after two weeks of the treatment he becomes not only harmless but also defenseless. In addition, the Ludovico technique has unintentionally ruined his love of classical music, which he from now on associates with violence. After his release, Alex is rejected by his parents and subsequently beaten both by his former victims and friends, all of them taking advantage of his inability to defend himself. Alex then finds shelter in the house of writer F. Alexander, whose wife died soon after Alex and his gang raped her two years ago. At first the men feels pity for Alex and decides to use the story of his mistreatment against the government, but after he recognizes Alex by the youth's usage of teenage slang called *nadsat*, he wants the boy to suffer. Alexander and his friends lock Alex in an apartment and play him Beethoven's 9th Symphony over and over. Alex attempts suicide to get rid of the pain caused by the side effect of the treatment and ends up in the hospital. Finally, the treatment is proclaimed to be a failure and doctors from another government restore Alex to his previous state. Back to normal, Alex spends his time with a new gang that engages in the same violent behavior as had his old group. However, he becomes discontent with his life and decides to start a family and live an "ordinary" life.

5.3. Reflection of "Man Playing God"

The American psychologist B. F. Skinner, a successor to Pavlov, believed in the necessity to change human behavior completely in order to create a better-organized society, and he introduced the idea that control by the environment should replace

the control exercised by autonomous man. (Skinner 1971: 26) Noam Chomsky aptly captured the public acceptance of Skinner's work in *The Case Against B. F. Skinner* by saying that Skinner is "accused of immorality and praised as a spokesman for science and rationality in human affairs." (Chomsky 1971) Burgess was a determined opponent of Skinner's theory and even labeled the psychologist's well known book *Beyond Freedom and Dignity* as one of the most dangerous books ever written. (Gichrist 2012) The negative attitude towards mind control as expressed in *A Clockwork Orange* is thus largely his response to Skinner's strongly held belief that "science and technology had reached the point at which, with one great push, the thing could be done." (Skinner 1971: 12)

The government and scientists are throughout *A Clockwork Orange* portrayed as uncaring of Alex's feelings, and they do not attempt to conceal their intentions of using the Ludovico Technique for purely pragmatic reasons. The Minister of the Interior, who has responsibility for the whole project, admits that the principal reason for the introduction of human conditioning on "common" criminals is that the state needs more prison space for political offenders. This character represents the attitude of the whole government, which is not concerned with questions of ethics, and is willing to sacrifice the rights of individual in order to stay firmly in control of the state. Also the chief scientist in charge of the experiment, Dr Brodsky, is depicted as a cold and detached person, referring to Alex as his subject. Brodsky is at the end of the treatment obviously satisfied with his work and proudly explains that Alex is now "ready to be crucified rather than to crucify, sick to the very heart at the thought even of killing a fly." (Burgess 2000: 96) The immorality of the experiment is also clearly confirmed by the response that is given to the chaplain after he objects that the treatment made Alex incapable of moral choice:

"These are subtleties," like smiled Dr Brodsky. "We are not concerned with motive, with the higher ethics. We are concerned only with cutting down crime." "And," chipped in this bolshy well-dressed Minister, "with relieving the ghastly congestion in our prison." (2000: 94)

Moreover, when Alex objects to the use of his beloved classical music as a part of the technique, Brodsky's assistant Dr Brenom argues that even though music was not intended to cause Alex more suffering, the governor will be pleased to hear that this serves as a punishment. Despite Alex's requests to stop the experiment, the doctors

insist that once he agreed to take part in the project, he must leave all decisions to them. Likewise, Alex is not taken seriously during the demonstration of the treatment before the audience, where he is introduced as a model citizen. He remarks that he is tired of being treated like an animal and that no one really cares about him as a human being. One “professor type” admonishes him for his impudence in interrupting the lecture and says Alex that he has no right to complain and must face the consequences of his choice. (2000: 94) All these examples imply that the moment Alex gave his consent to the treatment, he had ceased to be perceived as a human being with his own opinions and needs. Although Alex has caused a lot of suffering to others and thus it might not be easy to feel sympathy for him, it is hardly possible to disregard “the blatant hypocrisy of Alex’s co called rehabilitators.” (Bertrand 2010)

Similarly to Charlie Gordon, Alex also voluntarily agrees to take part in the experiment. But contrary to Charlie, who really wants to change his life, Alex considers the intervention as an easy way out of prison, assuming that “it gets you out quickly and makes sure that you don’t get in again.” He is determined to use all possible means to avoid his punishment, yet, after the chaplain’s warning that the technique is still in the experimental phase and “very simple but drastic,” Alex admits that he shares his doubts about the safety of such treatment. (2000: 62) Despite his misgivings, Alex does not put much effort into learning more about the experiment, which is a carelessness for which he later pays a high price. Without asking, Alex signs the document stating that his sentence is being commuted to submission to the treatment. The fact that Alex is not informed about the way the experiment will be conducted before he gives his consent, though he himself does not demand any detailed information, is an evident violation of the *Declaration of Helsinki*, which states that every potential human subject must be adequately informed of the aims and methods of the experiment as well as of “the anticipated benefits and potential risks of the study and the discomfort it may entail, and any other relevant aspects of the study.” (World Medical Association/Declaration of Helsinki) It is only few hours before his first therapy session that Alex asks Dr Branom in passing exactly what they are going to do to him. The only hints that the assistant drops are that Alex will watch special films and will be given a shot in the arm after every meal, which Alex initially considers to be vitamins. He is thus far

from being sufficiently informed of methods as well as possible risks. (Burgess 2000: 73)

The perception of science and technology in *A Clockwork Orange* is in many ways similar to Huxley's *Brave New World*. Both dystopian works present science as the means of control and manipulation of individuals by an authoritarian government. In *Brave New World*, technology brings society "out of the realm of mere slavish imitation of nature into much more interesting world of human invention." (Huxley 1932) The government controls the destiny of people from the very beginning, determining gender as well as person's future social position. Humans are artificially fertilized and then born in special bottles, while each embryo is predetermined to become a member of one particular caste. Whereas Alphas are the future leaders and controllers, the members of the lowest caste Epsilon are destined to work manually. Therefore, Epsilon embryos undergo various procedures including oxygen deprivation in order to be less physically attractive and principally less intelligent than the members of higher castes. Also the application of aversion therapy on the principle "what man has joined, nature is powerless to put asunder" is depicted in both works. (Huxley 1932) In order to reinforce the obedience of future citizens, small children in *Brave New World* are exposed to electric shocks and loud noises when they touch books or flowers. Alex is conditioned with the use of nausea inducing drugs in combination with extremely violent movies. Although some techniques of oppression are similar, *Brave New World* illustrates an even more extreme form of control than *A Clockwork Orange*. While Alex is subjected to the aversion therapy in order to be reformed, the procedures in *Brave New World* serve as a safeguard against possible misbehaviour and disobedience, and thus any act of violence is practically out of the question. Interestingly enough, Huxley did not ultimately reject behavioural interventions and even developed the theme of "Pavlov for positive purposes" in his novel *Island* (1962). Comparing the two works, Newman pointed out that Burgess, although his novel does not appear to be as "frustrating" as Huxley's work, attempted to indicate that the conditioning of criminals and violent offenders can be quite easily turned into the conditioning of all people as portrayed in *Brave New World*, and therefore *A Clockwork Orange* is a warning against slippery slope of government's "playing God" with human beings. (1991: 68)

Alex can be also compared to Winston Smith, the main character of Orwell's novel *1984*, Winston Smith. Both protagonists are seen as a threat to the government's rule and therefore their behaviour must be radically "improved." There is a certain resemblance between brainwashing and the mind control techniques used by the Ministry of Truth in *1984* and by the Ministry of the Interior in *A Clockwork Orange*. Both Alex and Winston are as rebellious members of society subjected to procedures that involve torture, coercion and physical pain, and then are released as broken and rebuilt beings. The important difference between these two books is that while Winston is brainwashed into thinking that he really "had won the victory over himself" by his surrender to the government, Alex still thinks the same way he had before the Ludovico Technique, but physical pain makes him as obedient as Winston. (Orwell 2000: 261) Like in *Brave New World*, in a sense *1984* portrays more extreme ways to ensure conformity than *A Clockwork Orange*, which can be demonstrated by the fact that Alex is in the end deconditioned because the government is not willing to challenge the accusation that an unsuccessful experiment that has resulted in an attempted suicide.

Burgess's opinions about the use of science and technology as portrayed in *A Clockwork Orange* were strongly influenced by two Catholic thinkers, St. Augustine and Pelagius. St. Augustine believed in original sin and the necessity of divine assistance, while Pelagius denied the predestination of man by God and maintained that all human actions and decisions are "done by us, not born with us." (Newman 1991: 64) *A Clockwork Orange* contains both views; the government represents "the Augustinians in power," who use Alex as a subject of the experiment since his corrupted nature could not be saved without a higher power. Thus, the government takes over the role of God and attempts to reclaim Alex with the help of science. Pelagians are then seen as defenders of Alex's rights, using him in a political struggle as a deterrent example of government oppression. (Morrison in Burgess 2000: xii) Brought up as a Catholic, Burgess accepted the myth of The Garden of Eden, but facing a moral dilemma about whether to prefer the violence of the individual to the violence of the state, he insisted that "it is better to have our streets infested with murderous young hoodlums than to deny individual freedom of choice." (Burgess in Newman 1991: 64) In the novel this opinion is advocated by the prison chaplain, who challenges the ethics of the Ludovico treatment from a religious point of view.

He tells Alex that he does not agree with the experiment but unfortunately there is no point in praying for him because Alex is “passing now to a region where you will be beyond the reach of the power of prayer.” (2000: 72) The chaplain is portrayed as rather naive and foolish man who really believes in Alex’s desire to reform, but this attitude does not downplay the importance of his words and he is definitely one moral voice in the story. When Alex is introduced as the subject at the final presentation of the Ludovico treatment, the chaplain is the only person in the room who openly criticizes the immorality of the intervention that overlooks the basic rights of individuals:

“He has no real choice, has he? Self-interest, fear of physical pain, drove him to that grotesque act of self-abasement. Its insincerity was clearly to be seen. He ceases to be a wrongdoer. He ceases also to be a creature capable of moral choice.” (2000: 94)

Political dissident F. Alexander is another character that rejects the implementation of the technique. Alexander blames the government for the death of his wife and seeks justice, ironically using the actual offender Alex as his main weapon. Unlike the chaplain, Alexander’s motives are not purely religious and his behavior displays certain signs of hypocrisy. Like the government, he is not interested in Alex as an individual but wants to use the youth in order to reach his own goals. When Alex asks Alexander and his friends if his involvement in the campaign against the government would get him cured, they seem to be surprised by his “selfish” way of thinking and tell him that his only concern for now is to be exhibited at public meetings and play the part of a martyr. (2000: 121) However, the dissidents change their mind after finding out that Alex is responsible for F. Alexander’s loss and decide that Alex’s death would cause the government more damage than using him as a living witness. By taking advantage of what Alexander himself has resentfully called “debilitating and will-sapping techniques,” he takes his personal revenge on Alex and forces him to attempt suicide. F. Alexander is thus not a defender of liberty and human rights, but on the contrary, his actions are as immoral as the actions of the government. (2000: 118)

The central idea of the novel is without any doubt focused on the importance of free will, even when it means the free choice of evil. Burgess suggested in his reflection on *A Clockwork Orange* that Alex’s story is the illustration of the fact that “goodness

is nothing if evil is not accepted as a possibility.”(Burgess 1990) As has been already written, Burgess’s choice of behavioural interventions in order to make the point about the morality of making scientific experiments on humans is by no means random. He is reacting not only to the works published by B.F. Skinner, but as well to the actual reports on the use of behaviour modification with American prisoners along with the plans to implement similar techniques in Great Britain. A decade after Burgess’ death there appeared the theory that his main source of inspiration for writing *A Clockwork Orange* was his real involvement in CIA mind control experiments in the 1950s. Although this claim has not been confirmed, the fact is that Burgess devoted a lot of attention to the description of the Ludovico Technique and managed to portray the procedure of behavioral modification in the form of aversion therapy quite precisely. (Morrison 2002)

6. Comparison of *Flowers for Algernon* and *A Clockwork Orange*

A close connection could be made between the way the scientists treat Charlie and Alex, and how the main characters respond to their conduct. While Charlie expects that increased intelligence will help him to establish new relationships with people and live a more quality life, Dr Nemur's and Dr Strauss' main goal is to make a scientific breakthrough in cognitive enhancement, which would of course mean a great career move. The moment of Nemur's triumph comes not when the experiment seemingly works and Charlie's intelligence increases, but when he is about to give a speech on his achievements in front of other scientists: "Finally, it was Nemur's turn to speak – to sum it all up as the head of the project – to take the spotlight as the author of a brilliant experiment. This was the day he had been waiting for." (Keyes 2002: 112) In *A Clockwork Orange*, the scientists perform the experiment primarily in order to help the government to make space for political prisoners, while the most important reason for conducting scientific research – providing significant benefits to individuals and society – does not seem to be their aspiration. Dr Brodsky is depicted as an arrogant man who is not interested in Alex's well-being but on the contrary, he even takes pleasure in the teen's suffering. When Alex begs the doctors to stop the experiment during his first therapy session, Brodsky laughs and adds: "Stop it? Stop it, did you say? Why, we've hardly started?" (Burgess 2000: 79) Charlie and Alex are well aware of the scientists' indifference to their feelings and opinions, and they cannot conceal their disappointment during a final public presentation of their new and "improved" personalities. In *Flowers for Algernon*, Charlie is offended by Nemur's claim that he was basically nothing before the experiment but is in doubt about whether to challenge Nemur immediately during the doctor's speech:

"I wanted to get up and show everyone what a fool he was, to shout at him: I'm a human being, a person – with parents and memories and a history – and I was before you ever wheeled me into that operating room!" (Keyes 2002: 112)

Alex also reacts angrily to the fact that scientists deliberately ignore him and do not allow him to raise any objection to the experiment that has had such negative effect on his life: "Me, me, me. How about me? Where do I come into all this? Am I like

just some animal or dog?” [...] “Am I just to be like a clock-work orange?” (Burgess 2000: 94)

There is a clear parallel between the structure of *Flowers for Algernon* and *A Clockwork Orange*. Both works trace the progress of the main characters, namely their life before the experiment, the changes the intervention brings about and finally a return to their former state. Burgess constructed *A Clockwork Orange* very carefully and divided the novel into three parts, each of them beginning with the same question: “What’s it going to be then, eh?” The first part presents Alex as a young boisterous rebel who is living life by his own rules. In the second part, after he ends up in prison and undergoes the experimental treatment, Alex ceases to be in control of his destiny and the decisions about his fate are made by higher authority – the government. The third part in many ways reflects the first part of the book. Being a victim of those he used to terrorize, Alex is for instance beaten up by a group of seniors lead by an old man that Alex’s gang humiliated two years ago. At the end, Alex is cured of his aversion but he does not return to his old life of violence. His character has morally grown and is prepared to start “a new like chapter beginning.” (Burgess 2000: 141) *Flowers for Algernon* also presents different stages of Charlie’s development. At the beginning, Charlie is portrayed as a very trusting mentally retarded man who likes his job and friends but at the same time believes that higher intelligence would make him happier. In the next part, Charlie experiences the unpleasant side of his increased intelligence after realizing that people often took advantage of his disability. On the other hand, he is not able to come to terms with the fact that the result of the experiment is only temporary and that it is not in his power to change the situation. However, Charlie’s intellectual regression does not mean that he is at the end the very person he was before the operation. On the contrary, similarly to Alex, Charlie has experienced too much to remain unchanged. Even though he has forgotten most of the things he has learned, he is grateful for the opportunity he was given:

Im glad I got a second chanse in life like you said to be smart because I lerned alot of things that I never even new were in this werld and Im grateful I saw it all even for a littel bit. And Im glad I found out all about my family and me. It was like I never had a family til I remembird about them and saw them and now I know I had a family and I was a person just like everyone. (sic) (Keyes 2002: 216)

One of the things that makes *Flowers for Algernon* so powerful is its inventive narrative style. The story is told from Charlie's perspective in the form of "progress reports," which he begins to write for the scientists in charge of the experiment. The early reports contain a lot of mistakes in spelling and punctuation, but as Charlie's IQ increases, his notes gradually become more sophisticated both in style and content. A few months after the operation, his writing is on such a high level that even the doctors have difficulties in understanding and admonish Charlie to write and speak more simply so that they could comprehend his thoughts. Towards the end of the novel, the reports are getting much simpler and the same grammatical and spelling errors as in the beginning appear. These striking contrasts help readers to understand the changes Charlie must go through and enable them to experience the whole story through his eyes. Keyes himself admitted that he started to write the story in the third person but when he was rereading some pages, he started to laugh at Charlie's reactions to a psychological test, and that was the moment when he realized that he must find a different narrative style:

The way I was telling the story, the reader would be laughing at Charlie. That's what most people did when they saw the mentally disadvantaged make mistakes. It was a way of making themselves feel superior. [...] I didn't want my readers to laugh at Charlie. Maybe laugh *with* him, but not *at* him. (Keyes 1999: 99)

Also Burgess used an unusual narrative strategy to depict the world of *A Clockwork Orange* and make Alex's story as authentic as possible. He invented his own slang based mostly on Russian and Cockney English and called it *nadsat*, which is a transliteration of the Russian suffix for "teen." The title of the novel *A Clockwork Orange*, which is a Cockney expression meaning something very strange, always attracted Burgess and he thus decided to create a story that would match it. The idea to develop the theme of the youthful aggression occurred to Burgess as a result of "a new British phenomenon," a noticeable violence of teenagers in the 1950s and 1960s. Burgess wrote the first draft using the 1960s slang but he felt that as a story told by a teenager from the future, new slang must be invented. He found a solution to the language of *A Clockwork Orange* during a holiday in Russia and in a short time he had created a vocabulary of about 200 words. Burgess did not approve of the fact that the old US edition contained a glossary of *nadsat* words, and claimed that a glossary would disrupt his intention to create his own form of brainwashing:

As the book was about brainwashing, it was appropriate that the text itself should be a brainwashing device. The reader would be brainwashed into learning minimal Russian. The novel was to be an exercise in linguistic programming, with the exoticisms gradually clarified by context: I would resist to the limit any publisher's demand that a glossary be provided. (Burgess 1990)

Interestingly, both Daniel Keyes and Anthony Burgess had difficulties finding editors who would accept the original and unchanged versions of their works. In 1958 Keyes submitted the short version of *Flowers for Algernon* to the *Galaxy Science Fiction Magazine* but editor insisted that Keys alter the story so that Charlie would remain intelligent and live a happy life with his love Alice. Keyes refused to do so and sold the unchanged version to the *Magazine of Fantasy and Science Fiction*, which proved to be a right decision because the story became an instant success. However, when Keyes wanted to publish the expanded story in 1965 he was turned down by five publishing companies, since all of them required that the novel have a happy ending. The novel was finally released one year later by Harcourt, which agreed to publish the book without any changes. (locusmag.com/Daniel Keyes interview) While British editors tried to convince Keyes to write a more optimistic ending, Burgess had to deal with quite an opposite problem in the US, specifically with “an American need for pessimism.” (Morrison in Burgess 2000: xvii) Eric Swenson, vice president of Burgess’ publishers W. W. Norton, was not willing to release *A Clockwork Orange* unless the last chapter was dropped. The main reason for publishing the novel incomplete was that not only Swenson, but also a number of critics have considered the last chapter too optimistic. Being skeptical about finding another US publisher, Burgess submitted to Swenson’s demand and the twenty-first chapter was omitted and not restored until 1988. Nevertheless, Burgess never agreed with the opinion that Alex’s return to violence is more realistic, and he wrote in the preface of the first complete edition that he was, similarly to Alex, a victim of a political struggle: “My book was Kennedyan and accepted the notion of moral progress. What was really wanted was a Nixonian book with no shred of optimism in it.” (Morrison in Burgess 2000: xvii) Moreover, behavior analyst Bobby Newman implies that the overall message of the original novel published in Britain offers a slightly different interpretation to the shortened US version. Newman argues that the last chapter changes the focus of the book “from the morality of behavioral

interventions per se to the more general issue of the existence of free will and the State's destruction of same.” (1991: 61)

7. Conclusion

Flowers for Algernon and *A Clockwork Orange* are powerful books which contain unusual plots and extraordinary main protagonists. Charlie is a man who struggles all his life with mental disability, and is mistreated by his mother, co-workers and later by scientists due to his differences. Alex, on the contrary, mistreats other people for his own amusement and enjoys a life of violence. Even though these characters initially seem to have nothing in common, they subsequently participate in medical experiments that strongly influence their lives. This bachelor thesis was written in order to show how *Flowers for Algernon* and *A Clockwork Orange* tackle the same theme of morality of changing the biological functioning of human cognition. Both novels explore the consequences of using science and technology in order to transform someone who does not fit into society. Experimentation on human beings is in both books portrayed as something that is more in the interest of a certain group of people, for instance a government or scientists, rather than as a project that will benefit humankind in the future.

In each novel there are two characters who express negative attitude towards experimentation on humans. Yet, their arguments are based on different grounds. Fanny Birken and Hilda in *Flowers for Algernon* use the Bible and original sin as a main point of reference in order to advocate the opinion that man should not try to play God, even if there is a possibility that such action will bring benefit. They both seem to be strongly biased towards any attempt of humankind to change what God has already created and accuse the scientists of hubris. This purely religious view is different from the one held by the prison chaplain and F. Alexander in *A Clockwork Orange*. Their disapproval of Alex's treatment comes from the aim of government and scientists to transform him into an obedient citizen unable to make his own decisions, as well as from the establishment's attainment of this goal by using violent and painful means. Objections are raised to a concrete violation of human rights and free will but not to scientific research in general.

In *Beyond Freedom and Dignity*, B. F. Skinner expressed an opinion that science applied to "human affairs" will improve the future of humanity, and he ended his book by stating that: "A scientific view of man offers exciting possibilities. We have not yet seen what man can make of man." (1971: 210) In their most famous works,

Keyes and Burgess warned that we are “playing God” through the use of modern technologies and new scientific discoveries which could turn out to be very useful as well as to raise a plenty of moral questions that could never have arisen in the past. Charlie and Alex are subjected to experiments which seem to belong to the second category. The duty of all physicians is to protect not only health and life but also the dignity, integrity and self-determination of every individual, regardless of intellectual or physical differences. To what measure are these values respected and preserved always depends partly on the conscience and character of the researcher, whose responsibility is to decide when and on whom to use an unproven intervention, and whether there is a reasonable likelihood of its benefit. *Flowers for Algernon* and *A Clockwork Orange* contain unprofessional acts of research, including for instance the questionable way of obtaining voluntary consent from both protagonists, which result in failure. To sum up, it is apparent that in a century in which the development of science and new technologies is more rapid than ever before, in question is no longer the capacity of humans to perform certain activities, but their ability to put a reasonable limit to what may be allowed.

Resumé

Vědecký a lékařský výzkum je v naší době klíčovou součástí pokroku, a posouvá hranice lidského vědění a schopností. Bádání na poli medicíny přispělo k objevům, které se postupně staly samozřejmou součástí našeho života, jako jsou například objev antibiotik nebo očkování proti nebezpečným nemocem. Fakt, že většina vědeckých a lékařských projektů s cílem vyvinout nový lék nebo chirurgický postup vyžaduje alespoň v konečných fázích testování na lidech samotných však způsobuje mnoho debat týkajících se etiky a oprávněnosti takových pokusů. Nedůvěra a odmítavý postoj pramení do jisté míry z pochybných a z dnešního pohledu eticky nepřístupných pokusů na lidech prováděných v minulosti. Nejznámějším případem bezprecedentního porušení základních lidských práv a lékařské etiky v moderní historii jsou pokusy vykonávané na věznicích v koncentračních a zajateckých táborech v Německu a dalších obsazených územích během druhé světové války. Pokusy byly prováděny bez dobrovolného a informovaného souhlasu pacientů, kteří se pro lékaře stali pouhými subjekty zkoumání bez nároku na lidská práva, svobodu a důstojnost. Tyto aspekty se v jisté míře vyskytují v dystopických románech *Růže pro Algernon* od Daniela Keyese a *Mechanický pomeranč* od Anthonyho Burgesse. Obě knihy se zabývají snahou vědců a lékařů změnit lidskou povahu pomocí vědeckých postupů, a zároveň také negativními důsledky jejich jednání. Hlavním cílem této bakalářské práce je analyzovat výzkum na lidech popsany v těchto dílech z morálního hlediska, zejména pak způsob, jakým zákroky ovlivní životy a osudy hlavních představitelů.

Práce je rozčleněna do sedmi hlavních kapitol. První kapitola se zabývá definicí a interpretací fráze „člověk hrající si na boha,“ a zkoumá význam tohoto termínu v náboženském i světském kontextu. Pozornost je zaměřena především na výklad „hraní si na boha“ ve smyslu použití technologií sloužících k vylepšení lidských kognitivních schopností (cognitive enhancement) a k pozměnění lidského chování (behavioral modification). Následující část se soustředí na praktické využití těchto metod na poli dnešního lékařského a vědeckého bádání. Kapitola také zahrnuje stručnou historii vývoje lékařské etiky ve 20. století a představuje některé významné mezinárodní dokumenty týkající se zásad a pravidel vědeckého výzkumu. Další kapitola nabízí nástin význačných děl britské a americké literatury, ve kterých se vyskytuje obdobné vykreslení tématu „člověk hrající si na boha“ jako ve dvou

ústředních knihách. Zvláštní pozornost je věnována literárním dílům z období vzniku *Růže pro Algernon* a *Mechanického pomeranče*, tedy 50. a 60. letům 20. století. Dvě následující kapitoly se zabývají samotnou analýzou vybraných děl. Každá z těchto kapitol zahrnuje stručnou biografii obou autorů, přehled děje a následovně podrobný rozbor na základě informací a podkladů z teoretické části práce. Analýza se zabývá především vztahem hlavních postav, Charlieho Gordona a Alexe DeLarge, a vědců zodpovědných za vědecký experiment. K účelu analýzy slouží kromě některých významných děl literatury také takzvaná Helsinská deklarace neboli základní dokument lékařské výzkumné etiky. Předposlední část práce slouží k porovnání *Růže pro Algernon* a *Mechanického pomeranče*, poslední kapitola následovně nabízí shrnutí získaných poznatků a jejich uvedení do souvislostí.

V židovsko-křesťanské tradici se fráze „hraní si na boha“ vztahuje k situacím, ve kterých lidé zastávají roli zdánlivě náležející vyšším silám. Bůh stvořil a uspořádal celý svět, a zároveň také určil jistá příkázání, jimiž by se lidé měli řídit. Je tedy morálně nesprávné, aby sami obyčejní smrtelníci manipulovali s věcmi, které jsou odjakživa pevně dané. První případ „hraní si na boha“ je popsán už v Bibli, kde Adam a Eva neuposlechli Boží příkaz a jedli ze stromu poznání dobra a zla. Trestem za jejich troufalost a namyšlenost bylo vyhnání z ráje, přičemž všechny budoucí generace jsou v důsledku jejich hříchu odsouzeny ke smrtelnosti. Náboženská interpretace „hraní si na boha“ tedy vychází z předpokladu, že každý pokus člověka o napodobení nebo nahrazení Boha a jeho schopností je následován trestem ve formě nepříjemných a často přímo zničujících následků. I když se může zdát, že fráze nabízí pouze nábožensky orientovaný výklad, často se „hraní si na boha“ používá jako nařčení z nadměrného či nepřirozeného vměšování se do přirozeného chodu přírody. Toto stanovisko je založeno na předpokladu, že lidé mají schopnosti umožňující jim přetvářet a dokonce ovládat svoje prostředí tak, aby co nejlépe sloužilo jejich potřebám a účelům, a tím pádem se do jisté míry staví do pozice bohů. Na druhé straně, spousta lidí v čele s vědeckými pracovníky zastává názor, že rozumně zvážené zásahy do přírody (a tím pádem i do lidského přirozeného prostředí) jsou v dnešní době nezbytné, neboť jsou jediným efektivním způsobem, jak bojovat se závažnými chorobami, chudobou a dalšími celosvětovými problémy.

Ačkoli se pokusy o vytvoření pravidel lékařské etiky objevují již od počátku 20. století, prvním významným souborem zásad a regulací klinických pokusů s lidmi byl Norimberský kodex z roku 1947. Kodex stanovil, že určitý druh výzkumu zahrnujícího lidské subjekty je morálně přijatelný, pokud je ovšem prokazatelně oprávněný a přesně vyměřený. Dokument také zahrnoval deset etických principů, které jsou závazné pro všechny lékaře a výzkumné pracovníky v případě provádění výzkumu na člověku. Významnou organizací zaměřenou na morální závazky lékařů je Světová lékařská asociace (World Medical Association - WMA), která vznikla stejného roku jako Norimberský kodex, tedy v roce 1947. Hlavním cílem WMA je podpora a propagace nejvyšší možné úrovně etického jednání a péče ze strany lékařů. Jedním z nejdůležitějších prohlášení vydaných Generálním shromážděním WMA je Ženevská deklarace z roku 1948, která slouží jako revize Hippokratovy přísahy, nejstarší formulace základních etických principů lékařského povolání. Nejkompletnějším programovým prohlášením WMA, které se týká experimentování na lidech, je Helsinská deklarace z roku 1964. Tato deklarace kombinuje deset rozvinutých zásad z Norimberského kodexu spolu s Ženevskou deklarací a navíc obsahuje doplňkové zásady lékařského výzkumu. Nejvýraznější odchylkou od dob Norimberského kodexu je zmírnění podmínek potřebných k získání souhlasu pacienta. Původně nedotknutelná zásada nezbytnosti dobrovolného souhlasu potencionálního lidského subjektu nyní poskytuje určité výjimky, například možnost získat souhlas od nezávislého lékaře, zákonného zástupce nebo speciálně určené poroty. Tyto změny vedly v minulých letech k opakovanému porušování principu dobrovolného souhlasu pacienta, stejně tak jako i k nedodržování dalších zásad etického jednání lékařů.

Hlavní postavou Růže pro Algernon je třicetivouletý mentálně retardovaný Charlie Gordon, který se stane prvním člověkem, jež podstoupí operaci za účelem zvýšení inteligence. Experiment je zpočátku úspěšný a z Charlieho se postupně stává génius, jehož vědomosti a schopnosti nakonec předčí i samotné lékaře v čele výzkumu. Charlie opustí svou dosavadní podřadnou práci v pekárně, naváže vztah se svojí bývalou učitelkou Alicí, a začne se věnovat vlastnímu výzkumu možností navýšení IQ. Brzy ale zjistí, že jeho inteligence s sebou přináší i zklamání a rozčarování, a začne si uvědomovat, že jeho domnělí přátelé a později i lékaři pouze využívali jeho postižení pro své vlastní účely. Účinek operace se navíc ukáže jako dočasný, neboť

myš Algernon, která sloužila jako první pokusný subjekt, ztrácí svou získanou inteligenci a následně umírá. Navzdory Charlieho urputné snaze zvrátit svůj osud, i on se nakonec vrací na stejnou intelektuální úroveň jako před operací. Román Růže pro Algernon představuje příklad zneužití vědy pramenící z pokusu učinit lidskou bytost lepší a dokonalejší než od přírody je. Charlieho neštěstí je způsobeno omezeným chápáním lékařů, kteří považují inteligenci za klíčový aspekt určující hodnotu lidského života, a snaží se tak napravit „chybu“ přírody. Jeden z vedoucích výzkumu, Profesor Nemur, se po zdánlivě zdařilé operaci začne vychloubat svým úspěchem a dává Charliemu jasně najevo, že jenom díky němu se konečně stal skutečnou lidskou bytostí. Dr. Nemur se tak staví do pozice Charlieho stvořitele a považuje za samozřejmé, že bez jeho „hraní si na boha“ je hodné obdivu a vděčnosti ze strany Charlieho i veřejnosti. Když však experiment selže a jeho účinky se začínají vytrácet, Nemur přizná Charliemu, že není schopen situaci zvrátit a jeho „božské“ schopnosti jsou očividně limitované. Ačkoli Charlie trpí postupnou ztrátou nově nabytého života, nezanevře na vědu jako takovou, ale viní lékaře ze způsobu vedení experimentu, především z jejich neetického chování vůči mentálně retardované osobě. S ohledem na Charlieho původní mentální stav je například jasné, že nebyl neschopný plně pochopit všechna rizika spojená s operací, což později sám přizná. Souhlas k operaci proto lékaři získají od Charlieho sestry Normy, se kterou nikdy neměl příliš vřelý vztah a s níž se léta nestýkal.

Druhou analyzovanou knihou je Mechanický pomeranč, jehož děj se soustředí na postavu patnáctiletého chlapce Alexe, milovníka vážné hudby a extrémního násilí. Alex je vůdcem pouličního gangu teenagerů, kteří tráví večery především agresivním napadáním lidí a krádežemi. Alex během jednoho z četných vloupání neúmyslně zabije starou ženu a ocitne se tak ve vězení, kde je po dvou letech vybrán jako kandidát na experimentální terapii v rámci vládního programu na snížení kriminality. Experiment je založen na averzivní terapii, při které je Alexovi předem vstříknuta látka způsobující silnou nevolnost a následovně je přinucen sledovat videa s násilným obsahem. Po dvou týdnech Alex není schopen žádného násilí, neboť pouhá představa u něj vyvolává fyzickou nevolnost, a stává se tak nejen neškodným, ale i bezbranným vůči svému okolí. Po propuštění je Alex postupně fyzicky napaden svými bývalými oběťmi a přáteli z gangu, kteří využijí jeho neschopnosti bránit se. Alex následně najde útočiště u protivládního aktivisty F. Alexandera, který byl však

kdysi zároveň Alexovou obětí. Alex se má jako subjekt neetického experimentu stát prostředkem v boji proti vládě, když si ale F. Alexander vzpomene na Alexovu pravou totožnost, i on využije Alexovi slabosti a pokusí se ho mučit. Alex se následně neúspěšně pokusí spáchat sebevraždu skokem z okna a skončí tak v nemocnici, kde po probuzení zjistí, že účinky terapie byly odstraněny. Mechanický pomeranč se stejně jako Růže pro Algernon zabývá etickou stránkou pokusů zaměřených na změnu lidského vědomí a chování. Charakter ministra vnitra například reprezentuje postoj celé vlády, která se nezabývá etickou otázkou experimentu a je ochotná obětovat práva jedince v zájmu obecného cíle. Doktor Brodsky je jako vědec v čele experimentu zobrazen jako chladný až bezcitný člověk, který je pyšný na výsledky svého „hraní si na boha“ a necítí žádné etické pochybení, i když Alex očividně trpí jak během, tak i po ukončení terapie. Chování ostatních vědců vůči Alexovi naznačuje, že ve chvíli, kdy dal souhlas k experimentu, nemá už dále právo zasahovat do jeho průběhu a jeho práva a názory nejsou brány v potaz.

Díla Růže pro Algernon i Mechanický pomeranč se zabývají následky použití vědy a technologie za účelem přetvořit někoho, kdo určitým způsobem nezapadá do společnosti. Pokusy na člověku jsou v obou dílech prováděny ne za účelem přinesení užitku celému lidstvu, ale primárně v zájmu určité omezené skupiny lidí, například lékařů nebo vlády. Ve svých nejslavnějších dílech Keyes s Burgessem varují před faktem, že lidé si „hrají na boha“ pomocí moderních vědeckých a technických objevů, které sice mohou být velice prospěšné, ale také vyvolat spoustu etických otázek, se kterými se lidstvo dosud nesetkalo. Je povinností všech lékařů ochránit nejenom život a zdraví ale také důstojnost a nezávislost svých pacientů, nehledě na intelektuální či fyzické odlišnosti. Do jaké míry jsou tyto hodnoty respektovány a dodržovány záleží vždy částečně na charakteru a svědomí lékaře, jehož odpovědností je rozhodnout v jakých případech a na kom provést neověřený zákrok nebo experiment, a zda existuje opodstatněná pravděpodobnost jeho přínosu. Selhání experimentu v obou analyzovaných dílech je důsledkem neprofesionálního počínání lékařů, jež zahrnuje například sporný způsob získávání informovaného a dobrovolného souhlasu. Je zřejmé, že v době, kdy je rozvoj vědy a techniky rychlejší než kdy předtím, už není hlavním otázkou způsobilost lidí provádět určité činnosti, ale jejich schopnost nastavit přesné hranice toho, co by ještě mělo být z morálního hlediska dovoleno.

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