

**Second Class Humans:
Changes in the Depiction of Clones in Literature and Film**

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Term Paper



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**Second Class Humans:
Changes in the Depiction of Clones in Literature and Film**

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1. Introduction

What would change in the world if human cloning was an established practise? Would clones and not-cloned individuals be regarded as equal or would the former be exploited to the benefit of the latter?

This is a question the genre of science-fiction dealt with on many occasions and which therefore is broadly portrayed in literature and film. The first-ever and probably also most famous book depicting clones is Aldous Huxley's *Brave New World* of the year 1932 in which cloning is the predominant method of reproduction. This book along with *Never Let Me Go* by Kazuo Ishiguro and the contemporary TV series *Orphan Black* produced by BBC America will be the base to answer the question whether the depiction of clones in literature and film changed within the span of the more than 80 years in which clones exist in the minds of authors and scientists and whether the clones nevertheless still are regarded as second-class humans.

Ever since the sheep Dolly was born in 1996 as the first-ever successfully cloned mammal, also the duplication of humans began to move into the realm of possibility in the minds of most people. Nevertheless some time still had to pass until attempts in the cloning of primates were fruitful and hence another step towards the feasibility of human cloning was taken. The first-ever successful attempt in the cloning of a human from adult cells was announced in 2008 by Samuel H. Woods who created together with his team embryo copies of himself by Somatic Cell Nuclear Transfer (SCNT) which were later destroyed. Nonetheless Samuel H. Woods is considered to be the first man who cloned himself.

Whilst human cloning gets more realistic with every new successfully cloned animal, its progress is slowed down drastically by an ethical debate whether the cloning of humans is morally unobjectionable or should be prohibited. Even if the moral question itself is regarded as secondary also scientists admit having objections towards human cloning insofar as they fear the danger of exaggerating the potential benefits and therefore the abuse through commercialisation of the process.

Due to the fact that this term paper will concentrate on the changes in the depiction of clones, it is not possible to give a full account of the scientific background (e.g. different cloning techniques), because this would go beyond the constraints of the

paper. Instead I will focus on only two aspects I consider to be essential to the following analysis: the aforementioned Somatic Cell Nuclear Transfer and the In Vitro-Fertilisation. Furthermore, only the first two seasons of *Orphan Black* will be included in this paper, because solely Season 1 and 2 are available on DVD yet.

This term paper will start with a brief explanation of the different types of cloning, the SCNT, the in vitro-fertilisation and genetic chimerism followed by a plot summary and a description of the cloning projects (the Hatcheries and Conditioning Centres in *Brave New World*, the Donor Program in *Never Let Me Go* and the Project Leda in *Orphan Black*) and the surrounding societies for each example. Additionally, the three examples will be compared in different aspects allowing afterwards a conclusion about whether the depiction of clones in literature and film has changed within the span of more than 80 years.

2. Scientific Background

2.1 Types of Cloning

If one engages oneself with the matter of cloning, first of all there should be differentiated between the various types: Both prokaryotic cells such as yeasts and bacteria and the cells in eukaryotic organisms (e.g. humans) replicate themselves asexually and can therefore be classified as natural clones. Excepted from this are only gametes (sperm cells and oocytes) which do not undergo the process of mitosis. Furthermore, there is the artificial process that can be subdivided into reproductive cloning and therapeutical cloning. Reproductive cloning aims at creating a fully functioning genetically identical being whereas therapeutic cloning has the goal to produce cells to use in transplants or medicine (Rugnetta).

Additionally, the “natural” kind of clones, monozygotic twins, have to be mentioned. They emerge when a zygote is multiplying itself in the womb and then is divided so that two genetically identical fetuses develop (A Dictionary of Biology).

2.2 In Vitro-Fertilisation

The cloning process in two of the three examples (*Brave New World* and *Orphan Black*) is introduced to happen via in vitro-fertilisation (IVF), whereas the method in *Never Let Me Go* stays unmentioned. Although IVF has long been a common

practice in animal breeding (Abdullah), it was not until 1978 that the first successfully through IVF created baby Louise Brown was born (Hutchinson).

The in vitro-fertilisation is a technique performed outside the living body (“in vitro” literally means “in glass”, e.g. in a test tube or in a Petri dish whereas the opposite “in vivo” is made to be exerted inside the living organism). Mature oocytes are harvested from the female’s ovary in order to be fertilised externally. The blastocyst is then implanted into the woman’s uterus (A Dictionary of Biology).

2.3 Somatic Cell Nuclear Transfer

The Somatic Cell Nuclear Transfer (SCNT) describes a cloning technique in which an ovum that had its own nucleus removed gets injected a new nucleus from a body cell of another being. The oocyte then develops into a zygote. If implanted into the womb of a surrogate mother, a fetus will evolve which is nearly completely genetically identical to the being that donated the somatic (body) cell (Stocum). This technique is the most common and used for the most attempts in cloning of animals. Additionally, SCNT bears the possibility to resurrect extinct species like the Pyrenean ibex. Celia who died in 2000 was the last of her kind and with tissue that was harvested by scientists just a few months before her death the first-ever endeavour to bring an extinct species back to life was made. Eventually, in 2003 a Pyrenean ibex baby was born, but it died within a few minutes (Morton).

2.4 Tetragametic Chimerism

Tetragametic Chimerism is a form of genetic chimerism and describes a single organism that consists of genetically distinct cells. This can happen for example when two non-identical twins merge inside the womb (Rogers).

3. Brave New World

3.1 Plot Summary

The dystopian science-fiction novel *Brave New World* by Aldous Huxley follows the story of Lenina Crowne and Bernard Marx who are inhabitants of a totalitarian global society in the distant future (2540 A.D./ 632 A.F.). The society is clearly hierarchially divided into different groups of which the lowest three groups (that make up a majority of the entire population) consist of cloned individuals. The protagonists

Lenina and Bernard (who themselves are no clones), on trip to a Savage Reservation far away from the rules of the World State, encounter Linda who got left-behind after being separated from her group and her son John whose father is revealed to be Bernard's boss. Being brought up in the reservation and taught to read only by a scientific manual and a collection of Shakespeare's works, John becomes famous as the "Savage" when he and his mother return with Bernard to the World State. The relationship between Lenina and John fails caused by the difference between John's Shakespearean view of romance and Lenina's World State-coined unconcerned attitude towards sex. After John attacks some lower caste children, Bernard and his friend Helmholtz are exiled for their behaviour whilst John tries to flee civilisation and begins to purify himself from society through self-mortification. This behaviour is witnessed and soon hundreds of bystanders including Lenina arrive at John's house. Seeing her whom he both loves and hates he attacks Lenina with his whip. Later arriving journalists discover that he hanged himself.

3.2 The Conception of Society and the Manipulation of Clones

3.2.1 The Society

Individual countries are abolished; instead an economy-orientated World State is governed by ten so-called World Controllers in a totalitarian aristocracy (Huxley 28). Society is divided into different castes numbered from Alpha to Epsilon whereby the Alphas constitute the most superior class (Huxley 22). A new religion has developed with the industrialist Henry Ford as central character. This leads to saying "Thank Ford!" (Huxley 68) instead of "Thank Lord!" like nowadays and the worshipping of the "T" (an allusion to his model T (Huxley 44)) instead of the Cross (Huxley 68-69). The beginning of a new era is also stressed by using A.F. (after Ford) instead of AD (Huxley 2).

Nearly all parts of everyday life are controlled by the state: Human embryos are raised artificially (Huxley 2-12), intimate relationships whether romantic or familial and corresponding terms are frowned upon (Huxley 19, 34) and the ideal citizen hardly ever spends time on his own (Huxley 38). Instead communal activities are predominant including the promotion of sex as a group activity and the consumption

of the hallucinogenic drug “Soma” (Huxley 69-74).

Furthermore, the individuals are encouraged to consume with slogans like “Ending is better than mending” (Huxley 42).

3.2.2 Growing up in the World State

Most of the World State's inhabitants are clones, because the mechanisation of the reproduction process that takes place in “hatcher[ies] and conditioning centre[s]” (Huxley 1). Every oocyte that is predetermined to become a member of the lower castes (Gamma to Epsilon) undergoes the so-called Bokanovsky's Process, a technique that allows “ninety-six human beings where only one grew before” (seventy-two humans is seen as a good average). Bokanovsky's Process uses a rather radical treatment consisting of hard X-rays, bathing the fertilised eggs in alcohol and freezing them to animate them to bud into two to eight zygotes each (Huxley 3-4).

The revolutionary way of raising embryos includes also another technique, the Podsnap's Technique, used to accelerate the process of ripening. Both methods together allow about eleven to seventeen thousand individuals yielded from a single ovary in just two years (Huxley 5-6). Only thirty percent of the females are allowed to develop normally in order to gain new ovaries for the maintenance of the society, the others are sterilized by regularly adding male sex-hormones (Huxley 10).

Furthermore, members of the lower classes are deliberately held below par by creating an oxygen-shortage inside the body, because characteristics such as intelligence or normal outward appearance are not needed to do their assigned work (Huxley 11). But the conditioning of the little humans has just began.

There were several methods encouraging the caste system: Lower caste babies are conditioned to a downright fear of books and plants due to a shock treatment that should compel them to use transportation and consume manufactured articles (Huxley 15-19). Moreover, the future workers are accustomed to the difficulties their jobs later will have like extreme temperatures or caustic and toxic chemicals (Huxley 12-14). The mind of every single individual is also shaped by hypnopaedia (sleep-teaching) where it gets inculcated the reluctance of lower castes and the contentment with its own caste until the infant believes that these are his or her own thoughts.

4. Never Let Me Go

4.1 Plot Summary

Kazuo Ishiguro's *Never Let Me Go* is told from the point of view of Kathy H. writing a diary in the late 1990's (Ishiguro 1) and follows the story of her, Ruth and Tommy, three friends living at Hailsham, an English boarding school. They are told that their health is most important, but never any reason is given until Miss Lucy (one of the guardians) tells them their purpose: the children are clones, brought up for the sole purpose of donating their vital organs to “normal” people. Between Ruth, Tommy and Kathy develops a complicated relationship when Kathy becomes fond of Tommy, however he begins a relationship with her best friend Ruth.

At the age of 16 they leave Hailsham and begin to live with other clones until they are needed as donors. During a trip to Norfolk, they hear about the rumour that Hailsham students can postpone their donations for a couple of years if they can prove that they are truly in love. Tommy proposes that Madame (a woman who visits Hailsham to collect the best artworks of the students to put into her gallery) collected their art at Hailsham to use as prove for their love.

Following a series of fights with Ruth, Kathy leaves the group to become a carer for other clones during their donations. Ten years pass until Kathy meets Ruth again who is in a very bad condition after her first donation and becomes her carer. Ruth suggests to make a last trip together with Tommy in which she apologises for keeping Kathy and Tommy apart although she knew that they were interested in each other. She tries to make it up by giving them Madame’s address to allow them getting a deferral. Soon after this encounter Ruth donates again and dies.

Kathy later decides to become Tommy’s carer and they develop a romantic relationship. Bringing Tommy’s new pieces of art with them, they visit Madame to learn that they are in fact no deferrals and the reason why she collected their art was not to look into their souls, but to prove that clones have souls at all. After a fight Kathy resigns from being Tommy’s carer and when he later dies she is left alone with her good memories of their time at Hailsham and the fear of beginning the donations herself in the not too distant future.

4.2 Life at Hailsham and the Purpose of Clones

Clones in *Never Let Me Go* are created to be used as organ donors in order to extend the lifespan of the “normal” people. They have no choice but to let their organs slowly get harvested until they “complete” (Ishiguro 203) or to put it otherwise: die. Furthermore the clones are all infertile although it is never stated explicitly what the reason for this is (Ishiguro 82).

The boarding school Hailsham in which Kathy and her friends grew up was one of a few attempts to let the clones live in a more humane surrounding than at some other places with much worse conditions. It was closed down after the “Morningdale Scandal” when the scientist James Morningdale tried to create children with superior characteristics such as enhanced intelligence and the “normal” people begin to fear the possibility of superhumans or, to be more specific, superclones that could take over the leadership of society (Ishiguro 258-259). As long as clones were created in order to be part of the donor program for the benefit of the “normals”, they were more or less accepted, but these soulless creatures (how they were seen as in the minds of most people (Ishiguro 255)) should not be superior to the “real” humans (Ishiguro 259).

Life at Hailsham excluded contact to the world outside the fences of the premises of Hailsham. The only contact to “real” humans that the children experienced except from their teachers was when Madame visited (Ishiguro 30) or when once every month some men brought new toys and clothes (Ishiguro 41). Only when they had to leave the boarding school some time after they become 16 years old (Ishiguro 76) they had to cope with the rest of the world. In preparation for leaving Hailsham there were a couple of role plays to familiarize them with living on their own (Ishiguro 108). The daily routine consisted of basic lessons like biology or geography and free time. All in all the lessons have focussed on the encouraging of the students to produce art like poetry or paintings of which the best works got collected by Madame (Ishiguro 30) to prove that the clones have “souls at all” (Ishiguro 255). In indirect preparation for their later role as donor they were told that their health is extremely important and harmful actions like smoking are strictly forbidden (Ishiguro 67).

5. Orphan Black

5.1 Plot Summary Season 1 and 2

The TV series *Orphan Black* revolves around a group of women who discover that they are clones and try to solve the mystery of their origin.

The series opens with Sarah Manning witnessing a woman's suicide who appears to be her doppelganger. With only a short moment of hesitation Sarah takes on the woman's identity, a cop named Beth Childs. Quickly she discovers that she is a clone and has many sisters spread throughout North America and Europe. Together with two of them, Alison Hendrix and Cosima Niehaus, Sarah continues the search for their origin and discovers a movement called Neolution whose members believe that humans have the power to direct their evolution via genetic engineering. Furthermore, they get to know that each clone is watched by a closely affiliated person such as husband or boyfriend. A religious group called the Proletheans is introduced that believes the clones are abominations and should be therefore killed. They send Helena, the slightly psychopathic "lost" clone, to murder her sisters. Sarah eventually discovers that she has a twin sister and that this sister is no-other than Helena. The Dyad Institute, headquarters of the Neolutionists, tries everything to get hold of Sarah's daughter Kira, Sarah being the only clone able to bear children. Sarah finds out that the cloning project she and the others are part of is called "Project Leda".

Believing that Kira was kidnapped, Sarah takes Beth's colleague Arthur Bell into confidence. Later she discovers that the kidnapping was staged by Mrs. S., Sarah's foster mother, to get Kira to a safe place. All precautions are useless for they are located again and again on their flight. Although Sarah shoots Helena, they later ally to search for more answers. They are separated and Helena is taken to a Prolethean family that accommodates her. Meanwhile, Cosima delves for a cure for the respiratory illness that already killed at least two of the clones and now threatens also her life. Rachel Duncan, the only clone that was raised self-aware, kidnaps Kira from the clinic she was in to donate bone marrow to cure Cosima. Sarah's only chance to see her again is to surrender. She escapes again, leaving Rachel severely hurt. Marion Bowles, a high-ranking official of Topside - a group that controls Dyad - reveals that there is parallel line of male clones, the "Project Castor".

5.2 The Project Leda

Project Leda consists of at least 13 female clones (number of clones known at the end of season 2): Sarah Manning, her twin sister Helena, Cosima Niehaus, Allison Hendrix, Rachel Duncan, Beth Childs, Katja Obinger, Jennifer Fitzsimmons, Janika Zingler, Aryanna Giordano, Danielle Fournier, the transgender Tony Sawicki (born as Antoinette Sawicki), and Charlotte Bowles. The first twelve of them are the results of illegal cloning experiments beginning in the 1970s and are all born in the year 1984 (Natural Selection 00:27:11). Charlotte, the youngest clone, was created in 2006 as the sole survivor of over 400 attempts to continue the line of Leda clones (By Means Which Have Never Yet Been Tried 00:36:20) although the original genome was lost in a fire (Ipsa Scientia Potestas Est 00:24:22).

All women were conceived in vitro. Either there was a surrogate mother involved who thought that the scientists that approached her were a couple unable to have children themselves (like Amelia, Sarah's and Helena's birth mother) (Unconscious Selection 00:40:37-00:41:30) or a couple using IVF unknowingly got a baby that was not their genetical daughter. (Variable And Full Of Perturbation 00:30:35).

The Projects Leda and Castor have been a military operation with Susan and Ethan Duncan as lead scientists until the Dyad Institute under the leadership of Dr. Aldous Leekie took over Project Leda (By Means Which Have Never Yet Been Tried 00:39:36). Nearly all of the female clones (except Rachel) were the largest part of their lives not aware of their clone nature and therefore had to be observed by so-called “monitors” - romantic partners, family or close friends – that collect information about the behaviour of their specific clone and send these to superiors such as Dr. Leekie (Conditions of Existence 00:31:51).

In order to be able to distinguish the clones and to patent their creation each DNA is expanded with an artificial sequence that is a code for "This organism and derivative genetic material is restricted intellectual property" followed by a tag number (Cosima's tag number is known to be 324b21) (Endless Forms Most Beautiful 00:31:06, 00:38:56-00:40:59).

The original genome for the Leda as well as the Castor clones originates from Kendall Malone due to genetic chimerism (Hodson).

The women are “barren by design” as Ethan Duncan explains to his foster-daughter

Rachel and thus Sarah and is the “failure” being able to bear children (Variable And Full Of Perturbation 00:35:56). This meddling with their genome causes an autoimmune disease resulting in violent bursts of coughing blood and a general feeling of weakness that finally will cost them their lives. Clones known to be affected by this respiratory illness are Katja (who was shot by Helena before the disease could kill her (Natural Selection 00:40:10-00:41:02)), Jennifer (who was promised a cure by Dyad, but died (Mingling Its Own Nature With 00:19:27)) and Cosima who is still fighting to find a cure herself (Endless Forms Most Beautiful 00:09:26).

6. Comparison

6.1 Changes and Differences

6.1.1 Differences between Present and Fictional Societies

Huxley's novel is set in the distant future and the society correspondingly has changed in the more than 500 years. The structures of many societies that are nowadays regarded as advanced seem totally outdated to the inhabitants of the *Brave New World*. *Never Let Me Go* on the other hand takes place in a recent past and the only addition to the reality is the concept of cloning as a way of providing donors for organ transplantations. *Orphan Black* also adds clones to the reality, but in a more subtle way, only including a small number of clones and leaving most of the world population in the dark about their existence.

The surrounding society is an important aspect in the perception of the situation of the clones and in order to allow the reader/viewer to be able to sympathise with the clones and understand their feelings it should not be too different from present societies. *Brave New World* does not deal with the problems that being a clone could carry with it, but rather focusses on the entire dystopian setting. Furthermore the protagonists are non-clones (Bernard is an Alpha Plus, Lenina is a Beta (Huxley 38, 53-54)) so a deep insight into the life of a clone in the World State is just not displayed.

6.1.2 The Reasons for Cloning

All three examples display rather different reasons to clone. The *Brave New World* uses cloning as a tool of efficiency that benefits the economy, because with an automatised way of reproduction the inhabitants of the World State do not have to

worry about familiar relationships and raising children and therefore have more time to be helpful and goods-producing parts of society. In *Never Let Me Go* on the other hand medical motifs are the crucial point for the reason that the clones and their organs are used to allow the “normal” humans to live longer and with less age-related complications. It is uncertain whether the main reason behind the Projects Leda and Castor really only is to prove that human cloning is possible. The involvement of Neolution could be a hint that the clones are made in order to expedite the humans' evolution, but the real purpose is not revealed yet.

6.1.3 Ratio Clones – “Normals”

The ratio of clones in relation to “normal” humans changed inevitably between the examples. In *Brave New World* large numbers of the World State's inhabitants are clones (all Gammas, Deltas and Epsilons) whereas in *Never Let Me Go* the clones make up a smaller part of society. It is nowhere stated whether there is one clone per person or one clone per a certain amount of people nor whether every “normal” human has the right to receive donations from a clone or this matter depends on financial issues. *Orphan Black's* clones however are a minority with 14 (all known Leda clones and the in the finale of season 2 introduced Castor clone) or a few more members of Clone Club (phrase coined by Cosima (Variation Under Nature 00:04:17)).

The amount of clones in science-fiction literature and film decreases in order to be able to focus on the behaviour and inner life of the clones in more detail.

6.1.4 Acceptance of the Clones within the Surrounding Society

The clones in *Brave New World* seem to be widely accepted because no sign of discrimination because of their clone nature is displayed. Them being clones is a result of being destined to be a member of a low caste; they are not members of a lower caste because they are clones. Ishiguro's clones are living in a sort of parallel society, because the common opinion about clones is that they are soulless and it is therefore acceptable to use them for the benefit of the “real” humans. The acceptance of the *Orphan Black* is not easy to determine, because only a small of the world population knows about their existence. The reactions upon realizing that clones exist

could not be more different than portrayed in the series: the Proletheans (an extremely religious group) is of the opinion that clones are against the will of God and should therefore be exterminated (Unconscious Selection 00:22:35), whereas Scott (the young man that helps Cosima since the beginning of her research) says that it is a great honour to have the chance to work with Cosima after she reveals that she is one of the clones they are researching (Variable And Full Of Perturbation 00:38:11).

The attitude towards the clones in *Never Let Me Go* and *Orphan Black* tries to raise the question in the minds of viewers and readers if clones are equal to the not-cloned individuals and their originals or if being cloned from another human being makes them somehow different and less worth. The demeanour of *Brave New World* is impossible to determine, because the story focusses on not-cloned individuals and the concept of cloning is only used to increase the efficiency of the reproduction process.

The acceptance of the clones depends on the ration between clones and “normals” and the individual mindset of each person (e.g. whether the person is religious or in favour of scientific progress).

6.1.5 The Struggle with their Fate

Whereas Huxley's clones do not seem to have any problems with them being clones, Kathy and her friends dislike their purpose and try to avoid the inevitable by asking for a deferral of the beginning of their donations. Nonetheless the clones in *Never Let Me Go* do not fight actively or try to run away to escape their fate. Sarah Manning and the other clones on the other hand refuse to simply accept the behaviour of Dyad and other superiors that try to control them in their decisions and behaviour and start to fight for self-determination.

The clones are more and more seen as individuals with the desire to have the exclusive control over their own lives instead of being the victims of the circumstances.

6.1.6 Amount of Scientific Background Given

What is striking in the comparison of *Never Let Me Go* and *Brave New World* is that

Ishiguro although the scientific research already was very advanced when he wrote *Never Let Me Go* eschews the portrayal of any scientist or other theoretical background in his novel especially if one considers that Huxley gives an extremely detailed account of the used techniques at a time where there was in fact no cloning technology (Shaddox 449). *Orphan Black* as the newest of the three examples probably gives the most exact explanation of cloning techniques.

With the progressing research on the subject of cloning the methods displayed in science-fiction literature and films gets more realistic. However the lack of the description of such techniques in *Never Let Me Go* can be explained by considering that Ishiguro did not set his focus on the scientific aspect but more on the impact of human cloning.

6.2 Similarities

6.2.1 Infertility

In all of the three examples the clones (or at least most of them) are infertile. The clones of the *Brave New World* show the highest percentage of fertility with approximately thirty percent of the women being able to reproduce, although this ability is not to be used for their own means but for the benefits of society. Whether all the men in the World State are able to father children or again just a selected few is not clarified. Nevertheless, due to the automation of the reproduction process the size of the population is completely under control of the authorities. Sarah and her sisters are all “barren by design” as their creator Ethan Duncan says, because of their status as experiments and thus it would be irresponsible to let them have the ability to bear children (Variable And Full Of Perturbation 00:35:57-00:36:30). Only Sarah and Helena are through an unknown error fertile. In *Never Let Me Go* however all the clones without a known exception are sterile, but it is never explained how or why. An important difference however is that Huxley's clones are made sterile manually while they are developing whereas the *Orphan Black* sisters are genetically manipulated in order to be infertile.

The infertility has very different reasons based upon the differently structured societies and the divergent purpose of the clones.

6.2.2 Suppression – Clones as Second Class Humans

All clones are suppressed in their lives, whether via brainwashing and other forms of influence like the hypnopaedia and the manipulation of the fetuses in *Brave New World*, the predetermination of their future, the missing alternative to becoming a donor and abuse of human beings as forced organ donors in *Never Let Me Go* or the tests and surveillance of the clones in *Orphan Black*.

In *Brave New World* the question to answer is to a lesser extent whether being a clone makes an individual inferior but more whether people are worth more if they are more intelligent or athletic and if it is comprehensible to manipulate an entire society to guarantee happiness.

7. Conclusion

All in all, it can be said that there are definitely changes in the depiction of clones in science-fiction literature and film, because the comparison of different aspects of the books and the series showed inevitably a development over the time. For instance the differences between fictional and real societies and the amount of clones shrinks and the used cloning techniques get more realistic in order to make the story more plausible. This and the higher individuality of the clones pursue the aim that the viewer/reader is more easily able to sympathise and empathise with the characters.

Moreover, even the similarities fit into the picture as they strengthen the point that clones still are seen as second-class humans as they are suppressed and aggrieved of their right to reproduce.

However, the results of this analysis should not be considered too diagnostically conclusive, because of the gargantuan amount of literature and films dealing with this topic and the enormous spectrum of different options to focus on.

The real impact of human clones on our societies today can only be guessed, because human cloning is prohibited in most countries and therefore is not (at least not openly) pursued further. Nevertheless, also in *Orphan Black* the research is done secretly and the vast majority of the people is completely oblivious to the existence of clones.

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