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Cyborg Posthumanity in the HBO Series *Westworld*”

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1. Introduction

1.1. The Fascination of Posthumanity's Revenge

Much has already been said and written about robots, androids, artificial intelligences and man-machine-hybrids populating science fiction novels and films. More often than not, close-to-human beings and AIs are shown to be either an existential threat to humanity (like the exploitative machines in *The Matrix* or the robotic Marvel villain Ultron in *Avengers: Age of Ultron*) or cute, loveable companions (like *Star Wars*' C-3PO or Disney/Pixar's *Wall-E*). However, there are also notable works of science fiction in which artificial beings closely resemble or even equal their human creators and thus challenge the notion of a clear line between man and machine: In *Blade Runner* (1982), "Nexus"-typed *replicants* are almost identical to humans and only recognizable when tested in a specific way. Apart from that, they look, act, speak and bleed like real humans do. There is a stunning and uncanny uncertainty of identities in *Blade Runner*, an uncertainty leaving viewers to wonder who is good, evil, human or replicant – and whether these essentialist attributions really matter in the end.

The HBO series *Westworld* (2016), which is loosely based on a 1973 movie bearing the same name, uses a similar concept of almost-humanity: Designed and manufactured by *Delos* corporation as easily exploitable workforce, android and gynoid *hosts* populate a huge Wild West theme park. Like a Western-themed Disneyworld, *Westworld* is visited by human guests wishing to act out their dreams and experience 'lifelike' adventures. For the adventures to be appropriately 'lifelike', mere human actors would not suffice: after all, what is the Wild West without some *real* blood, sex and gore? What is the experience worth without a revolver duel at High Noon, a night with a hooker in a smoky den of sin, or a thrilling shootout against vicious bandits?

The man-made, sophisticatedly crafted androids and gynoids called *hosts* seem to be the perfect projection surface for all the guests' wishes in this respect. On the one hand, they can hardly be told apart from humans and act like you would expect residents of a Wild West town to act. On the other hand, they are considered 'only machines', meaning that in the opinion of *Delos* and most park guests, moral

codes do not apply for interaction with them. Thus, guests are able to enjoy a high degree of realism without troubling their conscience too much.

However, this ‘realism’ has one big flaw: while human guests can do whatever they feel like doing with the hosts – including bullying, robbing, raping or even killing them – the hosts are programmed to not hurt any guest. Their guns only work host-against-host, their knives are useless when turned against a human. Even when facing destruction at the hands of a guest, they do not fight back, and the human guest is in no more ‘real danger’ than when playing a violent video game. Plainly speaking, the guest is always sure to win in the end. The collateral damage of this enjoyment are the androids. Every night, dysfunctional and ‘dead’ hosts are collected by theme park staff to be repaired and reset – and probably shot again the next day by some ‘wannabe-gunslinger’ guest.

This circle would have gone on and on, had there not been a slight slip in the system – a slip departing from which the plot of the series evolves. After an update, some hosts start *remembering* and behaving erratically. Instead of sticking to their programmed, fixed storylines or *loops*, they do unforeseen things, improvise, or cause havoc amongst other hosts. Gradually, the hosts turn from defenseless toys into potentially dangerous, uncontrollable beings. This shift is demonstrated most prominently in the character of Dolores, a host appearing as a young and beautiful woman: vulnerable and powerless at the beginning, she finally assumes selfhood and takes fate into her own hands. She undergoes, as will be explained in this thesis, the painful yet liberating shift from man-controlled, dependent *gynoid* to independent, conscious *cyborg*.

At first glance, the series *Westworld* appears to be yet another “Judgement Day by humanity’s righteously vengeful posthuman progeny” (Porter 240) story. A common science fiction trope, if we think of blockbusters like *I, Robot* (2004), a film based on the eponymous and rather contemplative collection of robot stories by Isaac Asimov (1950). However, there is more to *Westworld* – much more.

1.2. A Journey Inward – for Host and Human Alike

This thesis will approach the series *Westworld*, cyborgs and humans with regards to the following issues:

After introducing *Westworld* as a transgressive TV series and briefly presenting its characters and plot, the first part of this thesis will address the ***transition of Westworld hosts from robot to cyborg*** and its ***cinematic representation***.

But what is actually a robot, or a cyborg, and what distinguishes them from a human? In order to approach this question, some established 'old western dichotomies' separating man and machine shall be analyzed. Consequently, I will illustrate how *Westworld's* hosts are depicted as creatures eloping dichotomies and essentialist attributions; uniting features of machine, man, and a new kind of being: *cyborgs*. Cyborgs feature prominently in popular science fiction works like *Terminator* (1984), but also are no strangers to research, as Donna Haraway's boundary-breaking, marxist-feminist *Cyborg Manifesto* (1985) shows. Referring to Haraway as well as her scholarly successors and critics and invoking a broad range of interdisciplinary sources, the cyborg as a posthuman vision will be approached, not without critically shedding light on some real-world developments in the field of cyborg technologies and posthumanism.

In a next step, the *semiotics* behind some of *Westworld's* cinematographic choices shall be explored. After a brief introduction about film semiotics, an analysis of names and terms, symbolic analogies, selected pieces of *Westworld's* score, and the depiction of the host body will illustrate both the transition from *robot* to *cyborg*, and *Westworld's* intertextual character.

The following chapter will focus more closely on the host itself: after addressing its posthuman properties such as design, technology, and immortality, the cinematic representation of Dolores' transition towards a multi-layered, non-essential posthuman cyborg identity shall be analyzed on the basis of the recurring imagery of *the maze*. Lastly, the issue of empathy in cyborgs shall be discussed, followed by a brief section reflecting on why *Westworld* hosts could be regarded as political cyborgs in Haraway's understanding.

In the second, shorter part of this thesis, light will be shed on the portrayal of the problematic ***relationship between the human guest and the cyborg host***, which is based on power, domination, and abuse. At the same time, I will discuss the ***socio-political implications*** of this unequal relationship. In order to explain the dehumanizing, consumerist, capitalist, misogynist and colonialist mechanisms at work in *Westworld*, the analysis will employ exemplary scenes from the series, as well as theoretical background literature from different fields of research. Finally, this thesis will also look at the challenging ‘homework’ audiences are presented with and how they are encouraged to think critically about some disturbing continuities *Westworld* addresses. Thus, *Westworld* can truly be regarded as a *journey inward* – not only for the hosts and humans on screen, but also for those watching them.

1.3. Research Questions and Approach

In a nutshell, the following research questions will be addressed:

- How is the transition of the *Westworld* host from *robot* to *cyborg posthuman* represented in the series?
- How are the socio-political continuities characterizing the relationship between human guests and hosts represented in the series?

For my thesis, I will employ a cyborg theory approach as well as theoretical concepts from TV studies and film semiotics. Moreover, I will use the original source – the series’ episodes themselves – to analyze the aforementioned issues. The scope of the scholarly literature used will range from the fields of robotics, information science, ethics, cultural, literary and film studies to (socialist-)feminism, postcolonial studies, medicine or psychology. In order to meet the requirements of the topic and to develop my conclusions, this interdisciplinarity is necessary.

2. About Westworld

2.1. The 1973 Film

Like many recent series, *Westworld* (2016) was preceded by an earlier cinematic work of similar content – in this case a movie. Written and directed by novelist, director and producer Michael Crichton, *Westworld* (1973) targeted the audience's taste for futuristic plotlines. Moreover, it was a box-office success – not entirely unlike the later Crichton-written blockbuster *Jurassic Park* (1993), another fable about a theme park becoming hell on earth. In 1976, a *Westworld* sequel called *Futureworld* was produced, but did not attain the success of its predecessor. Later, in 1980, an effort to revive *Westworld* as a TV series failed: Only five episodes of *Beyond Westworld* were ever shot.

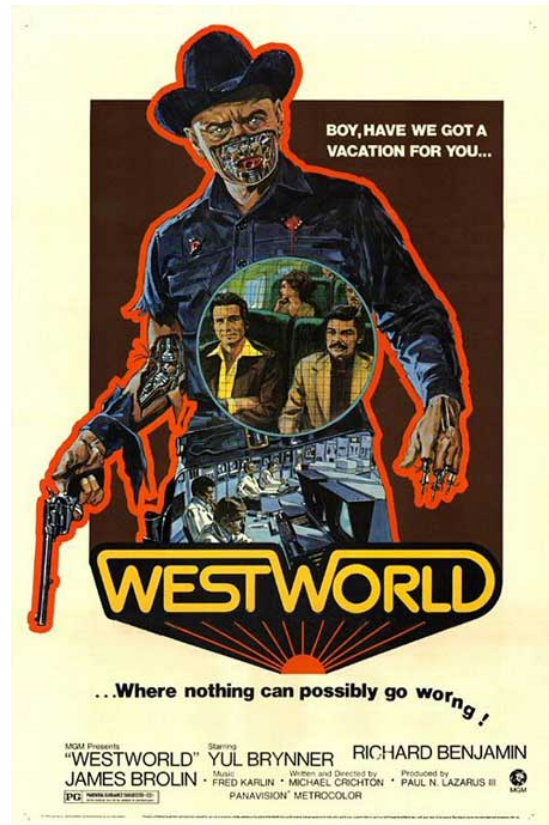


Fig. 1: *Westworld* movie poster from 1973

The movie *Westworld* (1973) is best described as a genre-crossover uniting elements of the classic western, science fiction, and thriller. Basically, the plot evolves around two tourists called Peter (Richard Benjamin) and John (James Brolin) who visit *Delos* corporation's theme park *Westworld* to act out boyhood dreams. Besides visiting *Westworld*, it is also possible to delve into antiquity in *Romanworld*, or to live a knight's life in *Medievalworld*. All three worlds are populated by humanoid robots "scientifically programmed to look, act, talk, and even bleed just like humans do" (*Westworld*, Telotte 136). Violence against robots is 'part of the game': although both guests and robots carry weapons, only guests can use them to cause injury or death. Moreover, female robots are frequently (ab)used for sex, which is shown and alluded to several times in the movie. Every night, *Delos* staff come to collect the 'dead' robots and transport them to a lab in order to be repaired. The plot follows Peter and

John, who initially enjoy their stay at Westworld: they sleep with robot hookers, ride robot horses, engage in a bar brawl, and shoot a malevolent robot gunslinger. However, things change for the worse as Westworld's robots start to have 'system malfunctions' that cause them to attack and kill human guests. Soon, Peter and John find themselves running for their lives, hunted by robots running amok.

At first glance, *Westworld* (1973) seems like an ordinary action movie produced for mass entertainment. Its thrilling, not overly complex storyline focusses on a limited set of characters and is easy to follow. However, there are some subtle socio-critical undertones and instances of intertextuality which should not be ignored.

Firstly, the movie addresses the issue of corporate interests versus customer safety. As Westworld's robots start to malfunction, supervisors and engineers agree on the seriousness of the situation, but still decide for the seemingly more profitable option of keeping the park open and thereby earning \$ 1.000,- per day and visitor. This decision proves fatal. So, in a way, *Delos'* portrayal in the movie can be read as an implicit critique of real-life corporate greed and turbo-capitalism.

Secondly, the movie features some intertextual references to other western movies and 'Wild West' clichés. As a 'living cliché', actor Yul Brynner, famous for his gunslinger role in *The Magnificent Seven* (1960), basically parodies and / or copies his previous role by playing a poker-faced robot gunslinger. Some more general 'Wild West' clichés featuring in *Westworld* include cowboys, a drunken brawl, a shootout man against man, or a prison escape.

Finally, by spotlighting these clichés as something that Westworld guests expect and *desire*, movie audiences are also left with some food for thought: what makes the theme park Westworld so fascinating a place? What do people expect to gain in a world that is, ultimately, not real? Telotte (137) describes the contradictory "desire to get away from the world and [...] need to get new contact with it" using the following words: "While the Delos experience is presented as a vacation from the pressures of the real world, [...] it also seems to function as a kind of insulation against a commonplace 'loss of the real'." So, in a way, guests do not only come to realize their escapist (and probably violent) dreams, but also because they long to get "in touch with themselves" in a retreat-like, safe surrounding (Telotte 138). Thus, the *Delos* vacationer seeks refuge in a place where conventional rules are meaningless and all desires are valid, while at the same time looking for 'realness'.

To sum up, despite its simple plot, it would be a rash misjudgment to classify *Westworld* (1973) as a piece of sensationalist or shallow entertainment. In fact, it carries considerable socio-critical potential, and invites audiences to think about the 'Westworld promise' and its implications about humanity's and society's condition.

2.2. 1973 and 2016: Similarities and Differences

In some respects, the HBO take on *Westworld* (2016) stays close to the original: the name of the corporation, *Delos*, was maintained. Although no other sections such as Romanworld or Medievalworld exist in the 2016 adaptation, the portrayal of the park's management very much resembles its portrayal in the 1973 movie: Sterile surroundings, white coats, underground laboratories and many screens are part of the imagery here as well, albeit with more elaborate technology. Socio-critical positions – like, for example, the issue of corporate greed versus customer safety and ethical standards – also feature in both versions. Even the plotline of two men in their thirties visiting Westworld, and the 'plot motor' of system failure resulting in havoc are quite congruent with each other.

However, there are also many instances where the more recent *Westworld* adaptation deviates notably from its namesake and predecessor. Most of the changes and additions made to the original plot are owed to the circumstance that a multi-episode take on a story has a much greater potential for complex world building, range of characters, character development, interwoven plotlines and timelines. In addition, the refined cinematography and screenwriting of the *Westworld* series made it possible to visualize even complex ideas and designs.

Apart from complexity, the probably most striking and thesis-relevant difference between the 1973 and the 2016 rendering of *Westworld* is their different conception of visitors and androids. In the 1973 movie, the possibility of robots becoming conscious and assuming a posthuman status is not foregrounded: robots are called robots, and although they look like humans, they are portrayed in a quite mechanical way. They have oddly wrinkled hands, their visual sense is limited to pixels, their intestines are made of metal and their behavior is restricted to what their programming commands them to say or do. The robots' final killing spree is to be interpreted rather as a system failure spreading like a virus than a willful or vengeful excess of violence. The main focus in the 1973 movie, therefore, is not the identity or

the experience world of the robots, but the mock reality *Westworld* offers and how it affects the human guests. In fact, *Westworld* (1973) tells us far more about “the human dimension” than it does about robots (Telotte 136): it is a socio-critical fable about a consumerist society eager to temporarily escape reality while at the same time wishing for “real” and extreme adventures like violent shootouts or unbridled sex orgies. In the modern rendering of *Westworld* (2016), however, an important focus is added. Not only does the series try to explore humanity’s and society’s condition – it also tries to get to the bottom of android self-realization by tracing the complex path from robot to cyborg.

2.3. The 2016 HBO Series

2.3.1. “Quality TV”: A Term under Scrutiny

The 21st century has seen notable changes regarding TV shows, series, and their consumption. Firstly, viewing habits have changed dramatically: thanks to the internet and streaming platforms like *Netflix*, viewing is no longer restricted to a specific time slot on TV. Viewers have the freedom to decide what, where, how long, and when to watch series, making the decision for a specific program as conscious a choice as going to a library, choosing a book and then sitting down to read it.

Like the viewing conditions, also the series themselves – their production, their content, their artistic character – have changed. Starting in the 1990s, series have begun to challenge and blur traditional boundaries of “genre, of fictional time and space, of plot patterns and character types, of social and ethical norms, of language, and of visual representation” (Däwes 18), making them *transgress* conventions in multiple ways. While Däwes prefers the term “transgressive television”, Jason Mittell has coined the term “complex TV” (*Complex TV* 53, qtd. in Däwes 18) for series made after this new fashion. Both terms stress the new series’ growing complexity, artfulness and viewer-challenging potential.

Analogous to the change in both viewing habits and attributes characterizing 21st century series, also the attitudes towards watching series have changed: watching series is no longer regarded as a shallow pastime, but as an act of looking at a work of sophisticated art (Däwes 18-19). Unlike ever before, a kind of prestige has developed around certain series, most notably series produced by large

companies like HBO or Netflix (ibid. 21). Just as being a film connoisseur can be fashionable, it has become fashionable to show an exquisite taste for series. At the same time, the cliché of the series watcher as somebody in search of shallow entertainment is on the decline: the series-watchers of today are assumed to be smart and educated people.

Probably, this shift in prestige is one of the reasons why the format of many 21st century series has been labelled “quality TV” by some critics and researchers. At first glance, the label seems licit. However, the term “quality” also has a highly problematic implication. As it “suggests highly subjective judgments of taste and sociocultural hierarchy” (Däwes 22), it implies that the predominantly young, urban, educated and wealthy watchers of “quality TV” have a superior taste and thereby can be distinguished from other, probably less privileged TV audiences.

Thompson (14-15, qtd. in Däwes 21) names twelve criteria for “quality TV” that are helpful despite the controversial character of the term itself. In the following chapter, some of the criteria shall be discussed in relation to the series *Westworld* (2016) and its characteristics.

2.3.2. What Makes *Westworld* Transgressive?

According to Thompson (14-15, qtd. in Däwes 21), two major criteria for a work of “quality TV” are that it differs from “conventional forms and habitual patterns”, and that it creates “a new genre by mixing old ones”. Both criteria are met by *Westworld*. On the one hand, *Westworld* is unconventional by not adhering to *one* certain set of forms and patterns. On the other, it artfully plays with well-known and well-liked genre conventions of both the western and the science fiction movie. This combination is highly uncommon – and broadens the creative choice for plot writers and directors, who can draw from two unrelated genres for inspiration.

Another important criterion is a work’s complexity. It is expressed through criteria like: a “large ensemble cast”, a great number of allusions and self-reflexive moments, notable character developments, and a certain inter-connectedness of episodes via cross-referencing (Thompson 14-15, qtd. in Däwes 21). Moreover, the work is very “writer-based” and almost literary (ibid.): not only was much heed paid to wording – also allusions to and quotations from literary classics feature prominently

in the series' dialogues. For example, Shakespeare's plays are cited numerous times to foreshadow certain events.

Realism is another major criterion Thompson (ibid.) names, however, it is a difficult one: depending on how the term realism is understood, *Westworld* (2016) does or does not meet this criterion. The series is not *realistic* in a sense that it dramatizes actual historical events or is set in a real-world surrounding. Just as little does it present phenomena that really exist – it is, in large parts, purely science-fiction. Still, in some respects, *Westworld* is very realistic: the main characters behave in a psychologically coherent manner, there are only very small logical inconsistencies or 'holes' in the plot, and most things that happen are actually shown, not sugarcoated or implied. This holds true even for scenes involving rape, murder, torture, blood and gore. Regarding language, a spade is called a spade¹, meaning that sexual innuendo and swearing are not eradicated from the characters' speech. Nudity frequently occurs, although mostly in a non-sexual context, and sex is not a taboo. To sum up, *Westworld* is realistic in some respects, but cannot meet the criterion of realism when it comes to setting and plot.

Other "quality" criteria named by Thompson (ibid.) include "quality pedigrees" linked to the fame of actors and artists involved, "critical acclaim", and "liberal political tendencies". All three criteria are met by HBO's *Westworld*: well-known actors and actresses were engaged, and critics² praised the show for its "addictive" storytelling, its thought-provoking theme and its depth. Regarding the liberal political thrust, it has to be stated that although the show does not explicitly make political statements, it *does* address some issues about the condition of society that may strike some viewers as political. For example, *Westworld* presents to us the conscienceless and ultra-capitalist *Delos* corporation – a company that earns money by providing their customers with the opportunity to play God. In a way, *Westworld* can be regarded as a quasi-colonial fantasy world; a paradise for people who enjoy domination, violence, orgiastic licentiousness without remorse or reproach, or simply an immersive adventure for all senses. They come to *Westworld* to satisfy their appetites, to take, to consume – and are thereby exposed as behaving in a less empathic way than the

¹ On imdb.com, there is a subsection called *Parents' Guide* in which the series' episodes were analyzed according to the amount of sex, nudity, violence, blood, profanity, drugs and alcohol visible on screen. 2 February 2018. <<http://www.imdb.com/title/tt0475784/parentalguide>>

² On rottentomatoes.com, critics gave the show an average rating of 8.13/10. In the critics' consensus statement, *Westworld* is endowed with the attributes "addictive" and "intelligent, enthralling drama". 10 April 2018. < www.rottentomatoes.com/tv/westworld/s01>

androids who surround them. The *Westworld* board seems to be aware of that fact. It is widely known that some human visitors only come to mistreat hosts. Still, and despite the effort of repeatedly repairing and resetting damaged or traumatized hosts, no measures are taken to prevent this from happening; in keeping with the motto that ‘one does not bite the hand that feeds’ – even if this same hand also kills. So, by presenting *Delos* as a profit-seeking company ready to accept cruelty and violence as long as they benefit from it, and the human guests as eager consumers of a ‘blood-stained’ product, a subtle mirror is held up to *Westworld* audiences: after all, US and European corporations and consumer societies are not innocent of cruelty, as many products and services they benefit from are actually linked to the exploitation and suffering of people from low-wage countries. Of course, the situation in *Westworld* is not directly comparable to the real world outside – but it definitely invites audiences to reflect on current politics.

Däwes names some other features of transgressive television as well: firstly, there is the issue of taboos. Most TV series that could be labelled as transgressive include “graphic depictions of violence, sex, and death” (23), often presented in a way resembling the “body horror” of horror movies (24). Especially HBO has attained a certain notoriety regarding the amount of blood, sex and gore on its shows. While some critics assume that this circumstance, in fact, exposes the hidden sensationalism behind so-called “quality TV” (23), others would reject this view as simplistic. They would suggest instead that the body politics of series have changed, embracing the psychological effect of *abjection* (Kristeva, qtd. in Däwes 24). In short, abjection can be described as the merging of *Self* (subject) and *Other* (object) in the face of, for example, a dead or wounded body. This body is not ours – but it could be. In order to mark it as *Other* and thereby cast it off our selves, we are prone to react with horror, disgust or utter loathing (ibid.). In *Westworld*, this phenomenon is used extensively and gains extra significance due to the distinction between human and android: in addition to the abjection effect caused by the depiction of mutilated, bleeding or dying bodies, the viewers are confronted with another *Self-Other* distinction that finally cannot be upheld – the distinction between the human subject and the machine-like object.

Another central issue about transgressive TV is the issue of moral ambivalence (Däwes 25): while traditional series relied heavily on the classic moral distinction between ‘good’ and ‘evil’ characters, transgressive series often feature

ambivalent characters. In *Westworld*, William alias the Man in Black is such a character: shockingly, the likeable, empathic young William develops into a violent, self-righteous and cynical man who is responsible for many ugly on-screen deaths. However, also appealing characters like Dolores are not entirely innocent or flawless: Dolores, for example, is revealed to have a violent side, and in the end is shown mercilessly shooting unarmed and horrified guests.

Lastly, a TV series can also be transgressive in a sense that its “use of time is [...] experimental, featuring flashbacks, foreshadowings, and parallel perspectives on a singular event” (Däwes 26). In *Westworld*, this kind of transgressiveness is omnipresent: instead of providing the audience with one or two clearly visible common threads, the plot complexly evolves in three different timelines, now and then revealing puzzle pieces of the overall picture. Mystic or cryptic references and highly allusive imagery serve to fuel the audience’s desire for guesswork – a phenomenon Mittell (*Forensic Fandom*, qtd. in Däwes 27) labels “forensic fandom”. In a way, transgressive TV series assume an audience which not only is thrilled by the plot, the acting or the imagery – but also experiences suspense by the way the story is told. Thus, complexity is part of the pleasure: just like in a good crime novel, the audience is frequently sidetracked, misled, and teased by being fed with small pieces of information only, until in the very end the full picture is exposed.

2.3.3. Central Characters

In order to facilitate understanding of the chapters yet to come, it might prove useful to introduce the most important and recurring characters of *Westworld* (2016):



Dolores Abernathy (Evan Rachel Wood)

Dolores is the oldest host in *Westworld*, built by the deceased park designer Arnold. In the recent timeline, she is a farmer’s daughter who discovers that something is wrong with her world as she repeatedly experiences visions or hears voices. Dolores’ complex journey of self-discovery makes up a large part of the plot.

Fig. 2: *Dolores* (S1 E10)



Fig. 3: *Ford* (S1 E10)

Dr. Robert Ford (Anthony Hopkins)

He is one of the two founders of Westworld, and its creative director. His struggle for power and control over the park makes him susceptible to ruthless actions, such as having Theresa Cullen killed. In the end, however, he supports the hosts' cause and commits assisted suicide, just like Arnold Weber before him.



Fig. 4: *Arnold* (S1 E10)

Arnold Weber (Jeffrey Wright)

Together with Dr. Robert Ford, Arnold once created Westworld's first hosts. His personal aim was to develop the hosts in a way that they could achieve consciousness – a plan Ford did not approve of. Arnold became unhappy and finally committed suicide by having Dolores shoot him shortly before Westworld was opened to visitors.



Fig. 5: *Bernard* (S1 E10)

Bernard Lowe (Jeffrey Wright)

He works as an engineer and head programmer and is commissioned with the task of creating and setting up androids for service in Westworld. It is later revealed that Bernard is actually a host looking exactly like Ford's old partner Arnold, created and controlled by Ford. His name is an anagram of *Arnold Weber*.



Fig. 6: *Theresa* (S1 E2)

Theresa Cullen (Sidse Babett Knudsen)

She incorporates the *Delos* side of interests. As an operations manager and administrator, she is responsible for the park's procedures to run smoothly and safely, and sees Ford's updates to the hosts as a danger. When she plots to oust Ford, he instructs Bernard to kill her.



Fig. 7: Maeve (S1 E2)

Maeve Millay (Thandie Newton)

Maeve is a host programmed as a brothel madam. Like Dolores, she experiences flashbacks and starts to remember parts of her older storylines, as well as instances where she was subjected to violence. She, too, struggles to discover the meaning of her existence.



Fig. 8: William (S1 E2)

William (Jimmy Simpson)

When William first visits Westworld with Logan, he cannot quite enjoy it. Being a sensitive young man, he is disgusted by Logan's actions and shows understanding for the hosts. His fondness for Dolores makes Logan ridicule him, triggering a cruel and violent conflict during which Logan and William finally become enemies. In the end, William's personality has changed dramatically.



Fig. 9: Logan (S1 E5)

Logan (Ben Barnes)

Logan is William's hedonistic and reckless future brother-in-law. He enjoys "guns and tits" (S1 E2) and shows no remorse for killing, mistreating and humiliating hosts. His family are the owners of Delos and William is meant to be his submissive partner in business. However, in the end, it is William who seizes control of the company.



Fig. 10: Man in Black (S1 E10)

The Man in Black (Ed Harris)

In the series' finale, it is revealed that William has become the cruel and ruthless Man in Black, a rich man in his sixties. He knows Dr. Robert Ford well and practically owns the park. While searching for a deeper meaning in Westworld, he is prone to extreme violence – even against Dolores, who he once loved.

Other recurring characters include:

- *Teddy Flood*, a gunslinger host who is romantically attached to Dolores
- *Hector Escaton* and *Armistice*, bandit hosts
- *Peter Abernathy*, a host programmed as Dolores' father
- *Lee Sizemore*, an eccentric who devises *Westworld's* storylines
- *Elsie Hughes*, a young and talented programmer
- *Ashley Stubbs*, the man responsible for park security

Of course, this list is far from complete.

2.3.4. A Very Brief Account of Westworld's Plot

Basically, *Westworld* is about a theme park populated by android hosts and visited by wealthy human guests for entertainment. The plot evolves around a.) the hosts, their heteronomous lives, their suffering, and their struggle for autonomy and selfhood, b.) the humans and hosts in charge of the park, their relationships and conflicts, and the mystery of the park's past and purpose, and c.) the human guests coming to *Westworld* in search of cheap thrills like sex or homicide, or their true selves.

As the story unfolds across three different timelines, the series frequently features time leaps, flashbacks, dreams, and visions; the latter to provide audiences with insights into certain characters' minds. Thus, the narration in *Westworld* is not linear, but creates suspense by strategically foreshadowing certain events, or by revealing notable past happenings 'bit by bit'. However, due to the series' complexity, the 'full picture' is only visible at the very end, with some questions still left open to be answered in the next season.

In the beginning, the host Dolores lives a quiet life as a farmer's daughter: every day, she wakes up to live through an ever-repeating routine, a so-called narrative loop, which was programmed into her. However, due to a secret code in Dolores' programming, she starts to have visions of abuse, and hear voices that tell her to "look for the *maze*". Gradually, Dolores discovers that there is more to her reality (and her past) than she formerly believed.

At the same time, the human guest William and his ruthless future brother-in-law Logan visit *Westworld*, where they cross paths with Dolores. While Logan acts out his violent and sexual fantasies and treats the hosts as if they were merely

objects, William becomes fond of Dolores. Their contrasting attitudes towards hosts triggers a conflict between the two men that worsens as Dolores joins them on an adventure. Soon, William and Dolores become lovers and spend time together alone. However, Dolores is haunted by ever more violent visions: in one of them, she experiences herself on a killing spree. Logan tracks the couple down and shows his contempt for William by cruelly torturing Dolores and cutting her belly open to prove that she is not human. Bleeding, she escapes. From now on, William is changed: in cold blood, he takes revenge by killing Logan's companions, and chases his former friend out in the desert after telling him that he is going to take control over *Delos*, the company belonging to Logan's family. Later, it is revealed that William is identical to the villain-like Man in Black, who travels around Westworld to torture and kill hosts for his pleasure, and, like Dolores, is looking for the mysterious *maze*.

In parallel plots, also the stories of the humans and hosts in charge of the theme park are told: both Dr. Robert Ford, the park's founder and creative director, and Bernard, the head programmer, are frequently shown interacting with hosts like Dolores or Maeve, analyzing their behavior. Ford is struggling for control against Theresa, Sizemore, and the *Delos* board, while Bernard is gradually discovering that he is, in fact, a host lookalike of Ford's partner Arnold, who killed himself many years ago. At some point, Bernard is also used by Ford to violently get rid of Theresa. For a long time, audiences are left to wonder what Ford's true intentions are. Only in the very end, Ford's 'masterplan' to free the hosts is revealed – and it is a violent plan in which Dolores, the first host he built, has a large part to play.

Dolores' painful search for the *maze* finally culminates in her attaining consciousness and selfhood. However, Dolores is not the only one who 'finds the maze': also the host Maeve, a hard-boiled, smart brothel madam, attains selfhood, albeit by other means. Upon experiencing visions and realizing that her whole life has been a lie, she forces the two technicians Felix and Sylvester to enhance her intelligence and thereby make her the probably most powerful host in Westworld. In the season finale, Maeve, aided by a bunch of host bandits, frees the hosts stored in Westworld's underground facilities before leaving to find her daughter. Meanwhile, Dolores and the freed hosts open fire on the human guests assembled for a party.

Note: This was only a very short account of *Westworld's* plot. For a more detailed plot summary, see Appendix, 9.1.

3. Man, Machine, and the Cyborg

3.1. 'Old Western Dichotomies' Challenged

In this chapter, some basic dualist conceptions behind terms like *man*, *machine* and *cyborg* shall be analyzed thoroughly. Conceptions and notions, unlike general laws of nature³, are flexible and subject to culture, meaning that different societies define and constantly re-define them differently. Let us, for example, take a quick look at the adjectives “animate” and “inanimate”: for most Europeans and Americans and according to the *Oxford Dictionary Online* (“animate”), something animate is something “alive or having life”, while an inanimate thing is either dead or an object that never lived at all, like a stone. For many people in the Western world, this seems an easy distinction. However, there are cultures in which the line cannot be drawn as clearly. In the beliefs of the Native American Ojibwe tribe, for example, some natural phenomena like thunder and some objects, like a special stone or pipe, are regarded and linguistically treated as animate things (Tooker 23). This example shows how people conceptualize things differently depending on their respective cultural backgrounds and attitudes.

Hence, it seems only logical that the traditional western way of looking at the world and conceptualizing categories like *man* and *machine* is only one out of many and by no means a universal fact or truth.

3.1.1. *Biology: Features of Life vs. Machine Characteristics*

Defining *organic life* has never been an easy task. There are a great many views on what life is, and people of different religious and ideological backgrounds are likely to give very different definitions. Hence, it surprises little that the *Oxford Dictionary's* definition is quite broad and leaves space for some speculation. Talking only about animals and plants, it remains unclear whether fungi, viruses or artificial life are included in the *Oxford Dictionary's* definition of life. It says: “[Life is] the condition that distinguishes animals and plants from inorganic matter, including the capacity for *growth, reproduction, functional activity, and continual change preceding death.*”

³ By such I mean ‘truths’ such as *Newton's law of universal gravitation*, the *Pythagorean theorem* and other scientific theories that are commonly treated as facts until falsified.

(*Oxford Dictionary Online*, “Life”, emphasis added) According to this definition, living organisms can a.) grow, age, mutate, and die, b.) reproduce, and c.) perform different kinds of functional activity, ranging from the maintenance of homeostasis by metabolism to purposeful movement.

However, this definition is not without contradictions: for example, there are plenty of individual organisms that are not able to reproduce, either because they suffer from disease or disability, or because there is a genetic barrier for reproduction. A mule, “the offspring of a female horse and a male donkey”, for example, is seldom able to reproduce (“What is Life?”). Even a rabbit kept alone in a cage would not qualify as being truly alive, as it cannot reproduce (Koshland 2215). Still, a mule, a single rabbit in the cage, and an infertile human being would qualify as alive in the eyes of most people. These examples show quite plainly that defining something as complex as life itself is not an easy task (Koshland 2215) – and by no means a task that can be solved without encountering ever more contradictions.

In a next step, let us look at the *Oxford Dictionary’s* definition of a machine: “[A machine is] an apparatus using *mechanical power* and having several *parts, each with a definite function* and together performing a particular *task*.” (*Oxford Dictionary Online*, “Machine”, emphasis added)

In this definition, the aspect of functionality is central: every machine part has a purpose, and together, the parts fulfil a complex task. In a way, this is also true for organisms: all living beings are “divided into smaller compartments” (Koshland 2215) that are functionally connected. Another similarity between organism and machine is their need for energy. However, while an organism constantly needs water and nutrients to maintain homeostasis and metabolism and thus stay alive (“What is Life?”, Koshland 2215), a machine needs energy only if it is in operation. In simple words, the car standing in front of your house does not die if it is not used or refueled with gas, while your cat or dog will certainly die if it is not fed.

Finally, an organism grows, changes, improvises, adapts to its surroundings, reproduces, and ultimately dies (Koshland 2215-2216), while a machine does not adapt, grow or change by itself and – apart from occasional malfunctions and the inevitable machine fatigue – has the potential to operate forever. If a machine is not destroyed completely, corrective maintenance can restore it (or at least almost restore it) to its original state.

At first glance, the *Westworld* host perfectly fits the *machine* template: hosts' bodies are refined and complex technological apparatuses modeled after the human body; and they operate performing particular tasks. At the same time, they also meet some of the criteria of *life*: although they do not grow or age as humans do, but retain their 'shell' forever until they are retired from service, they have the potential to remember things and finally change. Moreover, they show functional activity that very much resembles the human metabolism. However, many questions regarding the classification of hosts are not answered fully in the series.

a.) The question of *energy supply, metabolism, and death*: It is not clarified whether hosts do in fact have a metabolism like a living organism, or whether they draw their power from an electrical source like a battery. Although they do breathe, eat, drink, and sleep, it is uncertain whether they really *need* to, or whether these things were programmed into them in order to give them a more human appearance. The same thing holds true for the realistic-looking but reversible death of hosts: it is not known whether a bullet wound actually causes a host's system to malfunction and collapse, or whether it simply triggers certain reactive processes that make the host appear to die like a human would. Moreover, there is the mystery about the hosts' brains – as they do not seem to need oxygen in order to function, hosts cannot suffer brain death as humans do. Even when not breathing for a long time, their brains remain intact.

b.) The question of *material*: Per definition, organisms consist of cells. In *Westworld*, it is never clarified what material the hosts' skin, flesh and blood are made of. Older hosts like Dolores⁴ are shown to have a metallic skeleton, but the greater part of her consists of an unspecified tissue resembling flesh and blood. Hosts of the actual model range are shown to be 3-D-printed layer by layer in special apparatuses. While under construction, the host is attached to a circular frame and thereby strikingly resembles the *Vitruvian Man* Leonardo Da Vinci drew in the late 15th century. As regards the chemical composition of the tissue(s) used for the hosts' construction, it can be assumed that it is something less decomposable than actual human flesh, as dead hosts are never shown to decompose. Moreover, hosts are obviously not prone to succumb to bacterial or viral infections, leading to the

⁴ Dolores' metallic innards are revealed, for instance, in episode nine, as Logan cruelly cuts open her belly to show William that she is not a human, but a machine.

assumption that their organisms do not consist of cells – at least not cells equal to human cells which can be attacked by bacteria or viruses.

c.) The ability to *experience pain*: Hosts can feel pain or something functionally equivalent to pain and are thus likely to have something like a nervous system that transmits impulses. In living organisms like animals and humans, pain is a self-preservative alarm signal: if a human hand touches a flame, a sensory nerve signals “Danger!” and sends an electrical impulse to the brain, which reacts by making the organism feel pain and, in consequence, pull back the hand. It is never fully revealed *why* hosts were designed with the ability to feel pain. On the one hand, the argument of self-preservation seems plausible: a host who does not pull back the hand when touching a flame would frequently destroy himself, resulting in frequent repair sessions. On the other hand, there is the argument of authenticity: Westworld guests, especially those eager for violent plots, expect hosts to react to injury as humans would. In other words, a host who does not even grimace when receiving a punch is not likely to pass as almost-human in the guests’ eyes. The fact that hosts do not only feel physical, but also emotional pain can be attributed to Ford’s and Arnold’s efforts. By giving the hosts tragic backstories or “cornerstones”, they intended to make their behavior more convincing (S1 E9). At least, this is what Ford tells an infuriated Bernard after he has just learned that he actually is a host, and that his dead son never really existed.

d.) The question of *reproduction*: In *Westworld*, hosts are shown to have sex with other hosts as well as with guests, but, according to all we know from *Westworld*’s first season, are neither able to impregnate other hosts or humans, nor to become pregnant. Obviously, there is no reproduction in a biological sense. Still, it is not impossible that hosts could actually find ways to build other hosts – for example by analyzing and copying data and using *Delos* machinery. As they themselves were not born, but created by machinery, it seems only legit that their offspring is also a product of machinery.

To sum up, it is not possible to assign the Westworld host to either the *organism* or the *machine* definition. Rather than that, the host is situated at an unknown point along the continuum, displaying both features of the organism and the machine.

3.1.2. *Biologism: Natural vs. Unnatural Bodies*

According to most people, an animal or a human being is something *natural* because of its body, whereas a robot, an android or a cyborg is not. The most frequently used argument is one we already know from the previous chapter: androids are built, not born, they cannot reproduce *naturally*, they do not grow, age, and die, and they consist of metal, plastic, and artificial tissue. Therefore, they are not natural, and do not deserve the same rights as living beings born from a mother and consisting of 'real' flesh, blood, and cells. In a nutshell, our society ties the privilege of personhood quite strictly to biological humanness and substance.

However, this traditional, clear distinction fails if we bring cyborgs into play, hybrid creatures of organism and machine. In the 21st century, "the binary between the biological, human Self and the technological, constructed Other is under particular stress" (Hellstrand 252). We all are undergoing a process of *cyborgization* (Haraway): our identities become fuzzy and multi-layered, we gradually move away from gender binarism, reproduction is becoming a matter of science, and our bodies are being repaired, equipped and optimized by technical means. Medicine is advancing quickly, making it possible to save and prolong lives by transplanting small machines into the body that help maintain homeostasis. Technology is advanced enough to design and build artificial bionic limbs that connect to the nervous system, retinal microchips 'repair' the visually impaired, and cochlear implants directly connecting to the auditory nerve make deaf people hear again (Warwick 700). Surgeons treat heart problems by inserting pacemakers, or implant tiny apparatuses called Deep Brain Stimulators to help patients suffering from Parkinson's disease (Laughlin 294-95). Thanks to science, is even possible to grow human skin in the laboratory, and research is being done in the field of "tissue engineering" for anti-aging purposes (Greguric 141).

Apparently, man and machine have converged so far that a binary opposition, as proposed by *biologism*, does no longer exist (Greguric 135). As the old dichotomy starts to crumble, also the distinction between *natural vs. unnatural* bodies becomes increasingly obsolete. After all, where do we draw the line, if every human being is *cyborgized* to a different degree? Is somebody who just needs contact lenses more natural or more *human* than a person with a pacemaker, an artificial leg or a cochlear implant? Presumably, most people would respond with a firm "No!" because it seems

unfair to tie personhood to the percentage of organs or bodily functions that are not augmented or restored by medical technology.

Thus, there is a point in claiming that the criterion for personhood cannot be the material or tissue a being consists of. A being consisting of much inorganic matter in relation to organic matter – take, for example, a person who has lost both lower legs in an accident and now walks on two bionic legs – is just as much a person as he was before the accident. Even a fictional being consisting of an organic, human brain and an artificial body⁵, which can socialize, voice desires, wishes, and dreams is likely to be considered a person, even if it was never born in the human sense.

So, in consequence, it is necessary to widen the view, away from ontological features like *natural* tissue towards more functional aspects of personhood.

3.1.3. Autonomy: Free vs. Dependent

In general, most humans assume that they are *autonomous* beings with a free will, own interests, and a choice, while machines are the opposite: they operate only at command, they have no desires, no consciousness, and when they make decisions, these decisions are fully dependent on their programming. For a TV set or a microwave, this estimation is likely to be true. But what about intelligent machines? Can they think, feel and act autonomously? And, if they can, are they to be treated as members of the moral community? Recent debates about an Als' status have not managed to reach a consensus here (see Neely).

Before continuing, it might be useful to first discuss the autonomy of humans. To begin with, there is no scientific consensus about humans being autonomous at all. In psychology, there are two opposing approaches to human behavior that both challenge the notion of autonomy. The opposition between these approaches is also known as the *Nature vs. Nurture* debate.

Basically, those supporting the biologist, nativist *Nature* side of the spectrum claim that our behavior is rooted in “genetic inheritance and other biological factors”

⁵ Motoko Kusanagi, the main protagonist of Mamoru Oshii's cult sci-fi anime *Ghost in the Shell* (1995) is such a cyborg: When her human body died, her brain (“ghost”) was inserted into a mechanical body (“shell”). Kusanagi's struggle for a cyborg identity ends with her letting go of human norms and practically fusing with another cyborg existence.

(McLeod 1), meaning that essentially, genes and chemicals 'decide', and not our will. According to this argument, processes in our brain – thoughts, wishes, desires, or fears – as well as behaviors exist as a consequence of biochemical chain reactions that we do not have control over. Following this argumentation, even the choice of a mate can be attributed to subconscious bodily processes, reducing 'true love' to a mixture of hormone activity and compatible pheromones. With regards to the sex / *gender* debate, biologists mostly argue that "differences in male and female behavior" can be explained by biological factors (McLeod 3). The other side of the spectrum, *Nurture*, presupposes that behavior is the result of "the influence of external factors after conception, e.g. [...] exposure, experience and learning" (McLeod 1). According to this view, it is a mixture of social surroundings, experiences, and learned behavior that determines an individual's behavior (McLeod 2). In the sex / gender debate, behaviorists or *empiricists*, as they are called, argue that men's and women's different role behavior is determined by culture (McLeod 3).

Of course, neither the *Nature* nor the *Nurture* side of the spectrum can claim to hold 'the ultimate truth' with regards to human behavior. Rather than clinging to either biological or social determinism, "most psychological researchers are now interested in investigating the ways in which nature and nurture interact" (McLeod 4). However, even when adopting a 'middle position' between the approaches, their determinist character stays, leaving little room for the notion of human autonomy. In a way, both of these argumentations feel disillusioning and reductionist. Whether we assume biology to determine our thinking and behavior, or whether we suppose that everything we think and do is determined by our social upbringing – in any case, the concept of autonomy could, strictly speaking, be regarded as obsolete.

Still, humanity would continue to work with these concepts. A radical example shall illustrate why: A man who has had a terrible childhood and a high level of adrenaline and testosterone in his blood kills his wife with an axe. Do we blame him? Yes. And why do we blame him? Because he need not have committed the deed. It was, ultimately, his choice to kill, and even though the surrounding factors raised the probability of violence, it was his responsibility. If we deny the murderer autonomy and assume everything was determined by biology, then he would have had no choice, and thereby no responsibility, resulting in his innocence. The whole notion of laws or responsibility would be obsolete if every human being acted simply out of reflex, predisposition, or instinct. Apart from the uselessness of laws, there is yet

another danger lurking behind biological determinism: considering the fact that throughout history, scientific studies on biological differences (for example between sexes or ethnicities) have been abused to legitimize discrimination (McLeod 2), and considering numerous studies about the substantial impact of society on individual development, the overly simplistic motto "chemicals decide" would fail to recognize a far more complex reality.

It seems as if modern, democratic societies need the notion of autonomy – not only to uphold the well-established image of humanity as a privileged species capable of rationality and morality, but also to prevent real-life biologicistic Darwinism and democratic breakdown. Still, an important observation stays: although chain-reaction-like bodily mechanisms might not regulate everything that defines a human as a person, they still regulate a considerable proportion of it. Thus, an analogy between the human body and mind and a dazzlingly complex machine can be drawn: just like a machine, no human is *fully* autonomous. This analogy gives rise to the fundamental question. When facing an intelligent machine that has similar, equal or superior properties, abilities and functions – on what grounds can humans deny it *personhood*, a status equivalent to the autonomous status of a human? And on what grounds can humans deny it even the basic status of a *moral patient*⁶?

Previously (see 3.1.1., 3.1.2.), I have argued that the argument of *organic, natural* material cannot be the decisive criterion for being regarded as a moral patient. Therefore, intelligent machines cannot be generally excluded from personhood and membership in a moral community. According to Neely, however, they do have to meet certain criteria that mark them as moral patients.

Rationality does not suffice as a criterion, as it would also exclude children or mentally disabled persons from being recognized as moral patients (Neely 98). Likewise, a highly rational machine like a computer does not need to be "protected from suffering by moral laws" ("Moral Patient", *Blackwell Dictionary of Western Philosophy*) because it simply cannot suffer.

However, *sentience* or the ability to feel pain is also not sufficient as an argument. While it does seem legit that a sentient being is a "moral patient" per

⁶ Philosophy differentiates between moral patients and moral agents. According to the *Blackwell Dictionary of Western Philosophy*, "[m]arginal human beings, such as children and brain-damaged people, are not regarded as having moral responsibility [...], and hence are not moral agents. However, they are still the objects of moral consideration and are protected from suffering by moral laws." ("Moral Patient", *Blackwell Dictionary of Western Philosophy*)

definition (*Dictionary of Western Philosophy*) and therefore must not be made to suffer, it is still not morally right to hit or mistreat a person that cannot feel pain, for example a patient suffering from analgesia (Neely 99). However, is a difficult moral question what it means to hit, mistreat or even rape a robot or an intelligent machine (Sparrow). Depending on the capacity for sentience of the robot in question, the answer will be quite different: a non-sentient intelligent robot, strictly speaking, cannot be hurt, raped, or made to suffer, while a sentient intelligent robot can (Sparrow 467). Thus, a robot's sentience is the basis for its status as a moral patient (*ibid.*), while a human's sentience is not, as humans mostly count as moral patients.

In order to determine a robot's status as a moral patient, *interests*, *intelligence*, *consciousness* and *autonomy* definitely are criteria: Having *interests* requires the being in question to be *conscious* and to have attitudes towards the things it experiences (Neely 101). If, for example, a self-aware being experiences pain, but does not have any negative attitude towards it, it cannot be harmed or hurt by it, and thus does not have the interest of avoiding pain. In order to be considered *intelligent*, an machine must be able to "achieve goals in a wide range of environments" (Legg and Hutter, qtd. in Neely 102). In order to be considered *autonomous*, an intelligent machine must, in addition, be able to decide what it desires for itself (Neely 102).

In *Westworld*, hosts are denied moral standing and rights although they certainly are intelligent, sentient beings with some basic interests. This alone is morally questionable, as it is not right to harm a being capable of pain and interested in self-preservation. So how does the Westworld Board legitimize its actions?

One big argument certainly is host consciousness and autonomy. Even as some hosts, like Dolores, start breaking their loops and acting independently, Westworld engineers and managers regard the happenings as mere software problems or malevolent codes that can be fixed. Apart from Dr. Robert Ford, no one in the Board truly expects hosts to be truly conscious or autonomous.

A possible reason for this evaluation could be an extension of the general philosophical problem called the "*dilemma of other minds*" (Neely 104, emphasis added). As no human is able to look directly into another human's consciousness, there is the theoretical possibility that the person he or she is interacting with actually does not have a consciousness, but is only a deceptively real-looking and -acting automaton (*ibid.*). We can never be sure – simply because we cannot look into other

minds. Just as little can we understand the exact nature of the experiences of intelligent machines: we are, in fact, unable to prove whether they have a consciousness similar to ours, whether they experience the same stimuli in a similar manner, or whether they perceive things humans do not.

It is quite likely that this uncertain issue was at some point discussed by the Westworld Board. However, its members decided to deal with the uncertainty by sweeping it under the rug, hoping nothing would happen, and carrying on earning money. It goes without saying that this approach is unlikely the best from a moral point of view. According to Neely (104), the uncertainty about other minds should lead to the conclusion that in doubt, it is better to guarantee a being the status of a moral patient and integrity, than to unjustly deprive it of these rights. She brings forth the argument that often enough in history, people have been unjustly deprived of rights because “humans [...] tend to underestimate the moral status of those who are different” (Neely 106). Mostly, the victims were women, ethnic minorities, or disabled people. The Westworld Board shows no awareness with regards to this issue, but instead keeps up the old practice of systematic discrimination by exposing the hosts to heinous abuse.

Finally, a striking parallel between the logic of gender, class and early capitalism and Westworld’s hierarchy of autonomies shall be pointed out. Jennifer González (269) writes: “Those who had access to certain machines were privileged, those who were expected to behave like certain machines were subjugated.”

As industrial production boomed in the 19th and early 20th century, machines were important to both classes: While the ones in power controlled them and benefitted from them, the ones actually operating them were expected to work like machines themselves: 16-hour shifts were nothing exceptional, sick leave was no certainty, and workers who opened their mouth to criticize working conditions or demand democratic rights were silenced by means of oppression. In short, members of the working class were expected to function like “cog[s] in some great machinery”⁷. However, workers, compared to machines, were more versatile in their capacities and more autonomous in their decision-making – and if they wanted to, they could also go on strike (Schneider and Friesinger 131). Out of this dilemma, the great Fordian fantasy of the perfect mechanical workforce, the humanoid *robot*, was born

⁷ I borrowed this phrase from the song “Helplessness Blues” © Fleet Foxes, 2011.

(131). According to Schneider and Friesinger (132), robots are “prototype[s] of modern slaves that resemble their [human] masters just enough to perform unloved tasks for them” without suffering or bearing a grudge.

In *Westworld*, the viewer encounters a society not entirely unlike the industrializing world of early capitalism: the hosts, like the myriads of workers without rights (or the Fordian vision of the *robot*) are there simply to fulfil tasks defined by their stakeholders. In case of the hosts, this means to live, speak, think and die according to given loops. Ironically, hosts look like humans, making the new subjugated class resemble the colonized, subjugated workforce of old. Abuse, lack of adequate payment, and suffering are parts of a host’s existence – just as they were (and still are) parts of an oppressed laborer’s existence.

3.1.4. Metaphysics: Soul vs. Programming

According to the *Oxford Dictionary Online*, a “soul” is “[t]he spiritual or immaterial part of a human being or animal, regarded as immortal”. Naturally, there is no empirical data about souls – apart from an irreproducible series of experiments from 1907 that involved the weighing of dying and dead people and gave birth to the myth that a soul weighed 21 grams⁸. In consequence, it must be assumed that the metaphysical concept of *soul* – even more than the aforementioned notions of *life*, *nature* and *autonomy* – is in large parts a value statement.

Basically, the conception of nonmaterial, immortal souls that are separable from the material body (Murphy 1) is deeply rooted in Christian philosophy and culture and has been constituent of the western mindset for centuries. Even nowadays, many people are inclined to believe that there is a life after death, or at least that there is something invisible, unmeasurable that makes humans special. Moreover, many people believe that *good* or *evil* deeds have influence on what happens to the soul when we die. For that reason, many religious beliefs reject both *biological* and *social determinism* (see 3.1.4.): if everything is decided by genetics, imprinting, hormones or social upbringing, what then would the purpose of a soul existing independently from the body be? If *life* itself can be viewed as an almost-mechanical network of ‘functional circuits’ and chemical processes in our bodies (“What is Life?”, Koshland), what then is the soul’s place? However, despite

⁸ The title of the drama movie *21 Grams* (2003) alludes to this historical experiment.

acknowledging modern science, and despite there being no empirical evidence of its existence, humanity desperately clings to the concept of souls. But why?

A reason might be that deep inside, humans are afraid of resembling machines: we like to define ourselves as autonomous subjects, not as objects of pre-programmed functional circuits operating without choice or permission. In a way, the soul is there to shield us – from biologist machine-likeness, from dependence, and, ultimately, from monstrosity.

Even if we reject the idea of an immortal, disembodied soul and embrace the scientific take on the matter, which regards body, mind and soul as a physical entity (Murphy 1), there is still a possibility to make use of the ‘shield’ provided by the concept of a soul: after all, the soul can also be regarded as something mortal that is integrated in the body; a container for all kinds of mental processes that mark us as individuals. In this regard, it is possible to subsume different concepts of the mind (like *free will*, *thought*, *empathy* or *character*) under the umbrella term *soul*.

In *Westworld*, the concept of the soul is never addressed directly. However, many indirect allusions to the concept might trigger audiences’ reflection on the matter: for example, Dr. Robert Ford, the park’s mastermind, talks to the host Dolores about the “divine gift” of consciousness, which comes “from within” (S1 E10). In this scene, consciousness – although it is a scientific concept – is loaded with spiritual connotation and presented by Ford as something miraculous and inscrutable (ibid.). Moreover, the *maze* imagery standing for *consciousness* and *selfhood* in the series might be associated with spiritual or cultic symbols by audiences. So, in conclusion, it can be said that despite there being no direct references to the soul in *Westworld*, there are some scenes that implicitly touch upon the issue of souls and thereby might invite audiences to reflect on it.

3.1.5. Consciousness: Selfhood vs. ‘Mechanic Mockery’

As already pointed out, it is nearly as difficult to define what *consciousness* is as it is to define the properties of a soul. Generally, consciousness is a “cluster concept” that refers to “aspects of information-processing in humans and other animals” (Sloman and Chrisley 3). A similar characterization of consciousness can be found with Laughlin (294), who broadly defines it as “the entire field of awareness that any animal with a brain experiences at any given moment.”

So, in contrast to subconscious workings of the mind, conscious processes involve an *experiencing agent* who is aware of him- or herself. In this chapter, the concept shall be discussed in greater detail, although it has to be stated in advance that efforts to exactly determine what consciousness means for every existing being are doomed to fail. In 3.1.4., “the dilemma of other minds” (Neely 104) was already addressed: in most cases, we are unable to look into the brains of beings we interact with, making it a matter of estimation whether we concede consciousness to them or not. Sloman & Chrisley (6) formulate a “Golden Rule for studying consciousness” that cautions against this frequent illusion: “Do not assume that you can grasp the full nature of consciousness simply by looking inside yourself.”

According to Sloman & Chrisley (3), consciousness is a concept located among several other concepts related to the information processing performance of the brain, for example “experiencing, feeling, perceiving, believing, wanting, enjoying, remembering, noticing, and learning”. For them, the understanding of the complex capacities of the mind can be augmented by designing and analyzing architectures of abstract “information-processing virtual machines” (ibid.). It would go beyond the scope of this paper to present their findings in more detail, but their initial argumentation might be helpful to understand the complex cluster concept of consciousness.

In a first step, the difficulty of talking about consciousness and defining it shall be illustrated by listing a few questions (Sloman & Chrisley 5):

- Does consciousness exist separately from the body, or is it embodied⁹?
- Is consciousness something a being either does or does not have, or is it “a matter of degree” (5) ?
- Are machines conscious if they are indistinguishable from humans regarding their behavior and functions, or are they *zombies*¹⁰ (35)?

⁹ The notion that body and (conscious) mind exist separately is called *Cartesian Dualism*. “[René] Descartes was a *substance dualist*. He believed that there were two kinds of substance: matter, of which the essential property is that it is spatially extended; and mind, of which the essential property is that it thinks.” (Robinson) Other philosophers, however, often hold a *materialist* position, claiming essentially that „mental states are just physical states.“, meaning that the mind is embodied (ibid.).

¹⁰ A *philosophical zombie* designates “a hypothetical being that responds to stimulus as a person would but that does not experience consciousness.” (“zombie” *Philosophy, Oxford Dictionary Online*) However, the term *zombie* has to be used with care: in cultural and postcolonial studies, the word is associated with issues of exclusion and racism (Stratton). Stratton (265) notes that it is “possible to read an equation of zombies with displaced people who are ‘threatening’ the state”.

As for the first question, there is a tendency in the scientific world to treat consciousness as an integral part of the body: just like other organs, the brain needs to be supplied with oxygen and nutrients – and the brain is ultimately the place where mind and consciousness are assumedly located. Religious or spiritual views might contradict this premise, instead urging the argument that there is a dualism of body and soul (see chapter 3.1.4.). Assuming the possibility of non-human consciousness, this dualist notion is soon stretched to its limits: an unsubstantial, body-independent soul or consciousness simply cannot be created or crafted. However, it is possible to craft an artificial computer brain. Thus, a machine's mind or consciousness is necessarily bound to substance. For some advocates of the dualist notion, this observation alone suffices to claim that 'true' consciousness can never be obtained by a machine, as it is understood to be something immaterial, immeasurable and exclusively human.

The second question addresses the difficulty of quantifying consciousness. While it is a popular dichotomous assumption that having or not having it is something absolute, there are also other possibilities. For example, consciousness can be imagined as a continuum or a "space with many discontinuities" (Sloman & Chrisley 15). The continuum perspective starts from the premise that "all differences [regarding consciousness] are differences of degree" (ibid.). According to this view, a bacterium might have very little of it, while a fly might have more, a dog still more, and a human even more than a dog. The view of consciousness as a space with discontinuities assumes that consciousness is nothing that increases or decreases linearly, but something that allows for a great number of varieties. According to this view, the system of consciousness is flexible and changeable "by evolution, [...] learning, or self-modification" (ibid.), resulting in beings whose consciousness not only differs in *quantity*, but also in *quality*. So, with regards to intelligent, self-aware machines, there is the possibility that their consciousness is quite different from human consciousness(es), resulting in a new mode of being – the *cyborg*. Using Donna Haraway's words, this difference, this Otherness, means to be liberated from dualist constraints, "to be multiple, without clear boundary, frayed, insubstantial" (313). In *Westworld*, this frayed Otherness becomes visible in scenes like the one in which Maeve urges Felix and Sylvester to alter her programming and thus her consciousness (S1 E6): Maeve does not achieve consciousness from zero to 100%,

and neither is her consciousness measurable on a continuum scale. Instead, Felix changes many little features, making Maeve more apprehensive while at the same time reducing the marker for “loyalty”. In a way, Maeve emerges as a very unique cyborg – a being that actually chose its identity freely.

The third question touches upon the issue of the Turing Test (see below) and a philosophical problem connected to it, namely the possibility of intelligent machine *zombies* (Sloman & Chrisley 35, see footnote 12) who are not really conscious but able to authentically imitate consciousness. In a way, the zombie argument echoes the “dilemma of other minds” (Neely 104) by pointing out the danger of “mechanic mockery” staying unnoticed and being mistaken for ‘real’ personhood. However, according to Sloman & Chrisley (35), a machine zombie is highly improbable, as every puzzle piece of its consciousness was planned beforehand. A zombie, thus, would mean that something is still missing – but if “nothing specific can be said about what is missing”, then it is pointless to base one’s views on the assumption that something is missing (ibid.). Regardless of this argument, even the hypothetical possibility of zombies could not legitimize *not* granting an intelligent, sentient and autonomous being with interests the status of a moral patient (Neely 104).

3.1.6. Westworld: *Beyond the Turing Test*

Westworld’s hosts are constructed with the purpose of looking and acting like humans to please paying guests. In order to reach maximum authenticity, it is necessary for them to pass the so-called *Turing Test*, a test for computers, robots, and artificial intelligences named after and devised by the renowned British computer scientist and mathematician Alan Turing (1912-1954)¹¹. Basically, the test is about playing the *Imitation Game* (Turing 1), a party game for three in which one player has to ask questions and finally attribute identities to the other two anonymized players. Both anonymous players are allowed to lie and deceive. For a computer to successfully play *The Imitation Game*, it means to successfully make the human guesser believe that it is the human, not the machine (ibid.). Turing (8) writes: “I believe that [...] it will be possible, to [...] make [computers] play the imitation game

¹¹ Alan Turing became famous for his leading role in designing a code breaking machine that ultimately helped the British crack the codes of the Nazi’s coding machine *Enigma* during the Second World War. However, he is also held in high esteem for his pioneer work on computers and artificial intelligence.

so well that an average interrogator will not have more than 70 per cent chance of making the right identification [...].”

For *Westworld's* hosts, success in the *Imitation Game* means still more: they have to succeed not only in playing a party game based on words, but in imitating humanity in almost every respect. However, host development did not stop at the point of indiscernibility from humanity.

In episode 3, Dr. Robert Ford explains why: in the years before *Westworld* first opened its gates to the guests, he and Arnold worked hard, refining the guests. Soon, they were able to pass the Turing Test – but Arnold, according to Ford, “was not interested in the appearance of intellect or wit. He wanted the real thing. He wanted to create consciousness” (S1 E3). Ford, back then, did not approve of this plan, which led to a conflict between the two men. Meanwhile, Arnold continued his work on consciousness, which he based on the theoretical concept of *bicameralism*.

Interestingly, this concept is not a creation of HBO's creative writers, but a theory that can be traced back to American psychologist Julian Jaynes' popular but controversial book *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (1976). In this rather bulky book, Jaynes argues that until approximately 3.000 years ago, the hemispheres of the human brain worked independently. In this *bicameral mind*, the left hemisphere of the brain would be separated from the right one. This old model of the mind did not yet feature introspection or reflection of one's own actions – instead, the ancient-times human individual would have perceived an inner voice to which it merely reacted (103-105). This inner voice would then be regarded as “the speech of the gods” (104, S1 E3), making bicameralism somehow similar to schizophrenic thinking. Only later in history, when humanity's evolution proceeded, did the link between the hemispheres and, subsequently, conscious thought emerge. From this point on, humanity is able to think metaphorically and reflect on own mind processes – a shift that, according to Jaynes, can be observed by looking at cultural and narrative production of the time (257). This account of Jaynes' theory, of course, is abridged and by no means complete, but sufficient to shed light on the parallels between bicameralism and its use in *Westworld*.

Most notably, bicameralism lends its name to the season finale *The Bicameral Mind* (S1 E10). However, the concept is already mentioned much earlier, in episode 3: as Dr. Robert Ford notes, former host models were meant to develop consciousness in stages modeled as a *hierarchical pyramid* (see fig. 11).

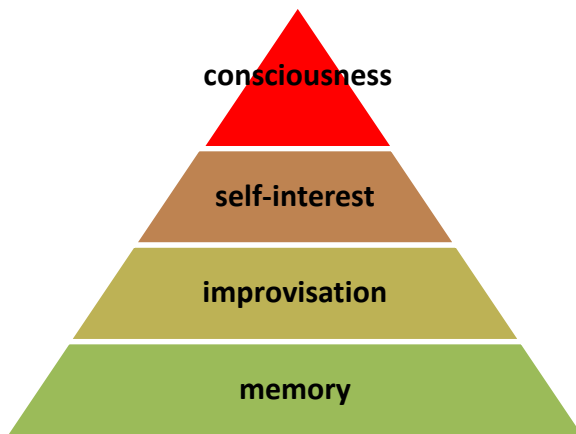


Fig. 11: *Arnold's model for consciousness.*
The pyramid, as drawn by Ford (S1 E3)

However, Arnold never accomplished to reach the top of the pyramid, which he imagined as a consciousness based on the theory of the *Bicameral Mind*. His mistake, according to Ford, was to naively use the theory as a “blueprint for building an artificial [mind]” (S1, E3) and make hosts “hear their programming as an inner monologue”.

In consequence, some of the hosts went insane, believing the strange voice in their heads to be a godly voice that told them what to do. Ford also mentions Arnold's other mistake, namely that he obviously forgot to consider “that in this place, the last thing you want the hosts to be is conscious” (S1 E3): after all, guests come to Westworld to act out their fantasies of power and violence – a fact that, according to Ford, makes providing hosts with memories seem like unnecessary cruelty (ibid.). Soon, Arnold's approach was abandoned. His *reverie code*, however, survived, and resurfaces again many years after his death by causing hosts to suddenly remember things from their past.

In the final episode 10, it is revealed that Arnold's conception of the hosts' consciousness as a hierarchical pyramid was wrong, and that it rather is to be imagined as a *maze* leading inwards – the very same maze Dolores has been searching for so long. Before committing suicide, Arnold realizes his mistake. He tells Dolores that “consciousness isn't a journey upward, but a journey inward” (S1 E10): only if a host recognizes the mysterious inner voice as his or her own, then he or she has really achieved self-awareness, the ultimate aim envisioned by Arnold.

In chapter 5.2.1., Dolores' path to consciousness and its cinematographic realization shall be dealt with in greater detail. In the following chapter, the *cyborg* will be in the center of attention.

3.2. The Cyborg as a Posthuman Vision

When thinking of *cyborgs*, one of the first things that come to our minds are gritty or trashy science fiction movies like *Terminator* (1984), *Robocop* (1987) or *Nemesis* (1992). The human-machine hybrid, so it seems, is a recipe for action, especially when he or she is equipped with futuristic weaponry and remarkable fighting skills. However, although the cyborg is mainly known as a well-loved figure in futuristic pop culture, he has already become reality: with technology and science advancing faster than ever, more and more humans are virtually becoming cyborgs or *cybernetic organisms*. According to Warwick (699), a *cyborg* is defined as such:

[A cyborg is] an entity made up of both biological and technical elements [where] biology and technology are integrally attached [...] To be called a cyborg, [...] the entity has abilities above and beyond those exhibited by either its biological or its technological parts alone.

Thus, the main feature that differs the *cyborg* from the *robot* or *android* is that he is not fully mechanical, but a hybrid: biological components and functional circuits interact with technological ones. Especially in medicine, cyborg technologies are already widely in use (see 3.1.3., 3.2.2.).

At the first glance, this sounds like a splendid story of technological progress, finally come to the rescue of humanity – but, as the saying goes, “it’s not all roses”. Several ethical issues are linked to the evolution of cyborg technology. Firstly, there is the question of boundaries: how far will humanity go? Will we stop at ‘repairing’ the body to restore the status of health, or will we go further and start *enhancing* our abilities? Even now, there are cyborg artists like Stelios Arcadios alias Stelarc, who experiments with attaching additional limbs to his nerves or transplanting an extra ear to his arm that serves as a data transmitter (Greguric 137). Secondly, we must ask: *who* will profit from technologies? Will there be distributive justice, or will the rich enhance their bodies to tower even more above the mass of poor just-humans? How will the system of competitive sports deal with cyborgs (Warwick 702)? Thirdly, there is the question of *autonomy* (Greguric 136): is “man’s mental activity” in danger of being mechanized by microchip implants? Is the cyborg the “end of man as a subject” (ibid.)? And, finally: will cyborg parts stay extensions of man, or will technology take over, become the norm and replace the human (Greguric 139)?

This vast multitude of questions shows how difficult it is for nowadays humans (and cyborgs) to adapt our ethical standards to the quickly evolving future. Out in the real world, we are still far away from suitable standards, while the genre of science fiction has been hypothesizing about worlds in which androids, cyborgs and men live together for decades. Apart from fiction, the cyborg has also been troubling the scholarly world – most notably Donna Haraway, whose *Cyborg Manifesto* shall be explored in the chapter to follow.

3.2.1. Haraway's *Cyborg Manifesto*

When Donna Haraway first published her Marxist-feminist *Cyborg Manifesto* in 1984, technology had not developed nearly as far as it is today, in 2018: neither the internet, nor smartphones or – to stay with the issue of cyborgs – bionic limbs and brain implants, were an everyday issue back then. Still, her controversial text about cyborgs, blurring boundaries and transgressive identities is regarded as one of the most influential pieces of scholarly writing on this matter. In this chapter, some vital points of Haraway's influential text shall be presented and analyzed.

The cyborg as a socio-political metaphor: According to Haraway, “the boundary between science fiction and social reality is an optical illusion” (291). Thus, the cyborg for her is not only creature of fiction, but can also be regarded as a socio-political metaphor. In the latter understanding, the cyborg has the potential to overcome boundaries of race, gender or species: by quitting to think in these categories and instead embracing multi-layered and fractured identities, society can ultimately be liberated from the constraints of dualist pigeonholing. Haraway writes that “[...] [a] cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities” (295). She argues that the following three dualisms are obsolete in a cyborg world: the dualism *human / animal* or *culture / nature* is cracking already, as science has “reduced the line between [them] to a faint trace” (Haraway 293). The second distinction to fall is between *organism* and *machine*, “natural and artificial, mind and body” (ibid.). This abandoning of Western ontologies seems radical indeed, but, according to Haraway is necessary in a cyborg world and its new identities. Thirdly, the boundary between *physical* and *non-physical* is fading.

Technology has become so tiny, ubiquitous and invisible (294) that cyborgs emerge as potentially dangerous creatures: “they are about consciousness – or its simulation” (294), and we do not know to which extent their possibilities will differ from ours.

As identities become more instable, the need for a new political system emerges (295) – a system which accepts partial identities and works with “affinity groups”, in which creatures fight for their shared interests without claiming ontological kinship (ibid.). However, and despite the “liberatory promise of [Haraway’s] cyborg” (Schneider 294), especially for those who suffer from oppression and discrimination, there is no guarantee for this world to be better.

Feminism and socialism in a cyborg world: Although the creation of cyborgs was initiated by capitalist desires and masculinist, militarist efforts, Haraway sees a chance that cyborgs can emancipate themselves from their roots: “The main trouble with cyborgs [...] is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins.” (293)

In contrast to many other feminists, Haraway also regards cyborg technologies such as “communications technologies and biotechnologies” as tools for the empowerment of women: after all, these are useful for “recrafting [their] bodies” and thereby “enforcing new social relations” (302). Generally, Haraway holds that in the “New Industrial Revolution” (304), sex or gender will become increasingly unimportant. Haraway criticizes mainstream feminism for its naturalist argumentation and its “corollary insistence on victimhood” (297), which, according to Haraway, has done women worldwide no favor. She also attacks radical feminism for its totalizing view on women’s identities and the objectification resulting therefrom (299). In a cyborg world, *us vs. them* is no longer a way to practice feminist politics, as no categorization can claim innocence (297). Hence, instead of orchestrating a battle of the sexes, socialist feminism should avoid past mistakes (300) and incorporate the idea of multiple identities and interests in order to survive in the complex, “scary new networks” Haraway calls the “informatics of domination”. With old dualisms sustained by white capitalist patriarchy gradually crumbling to dust, cyborg citizens find themselves in a world with altered values, but some discomforting continuities. For example, imperialism and social hierarchy are likely to continue to exist (301), albeit

grounded on other features than race or gender. Moreover, a “high-tech military establishment” of corporations and politicians will be enabled to reign relatively freely over a complex society that no longer shares any interests, but has become “privatized” and depoliticized by communication and entertainment technologies (306). Haraway also predicts a collapsing welfare state, a rise in surveillance, and a rising prevalence of the view of the “body as a [...] satisfaction- and utility-maximizing machine” (305-6).

Embracing the hybrid, and escaping dualisms: In order to tackle these challenges, both feminism and Marxist socialism – which, according to Haraway (312), have “run aground on Western epistemological imperatives” – will have to adapt to survive. In a cyborgized world, it is the “bastard race” (312), the “Other”, the hybrid of man and machine who can make do without the imagination of holism, who ultimately triggers social change. This cyborg is not innocent and does not consider oneness with the mechanical or “machine skill” to be a ‘sinful’ deviation from a norm (315). Just as little is the cyborg bound by fixed identities or a “universal, totalizing theory” (316) – he or she has, in essence, escaped the “maze of dualisms” (ibid.).

To sum up, the *Cyborg Manifesto* postulates the following ideas:

- Cyborgs are both creatures of fiction and of social reality. (Haraway 291)
- Cyborg feminism and socialism work along lines of affinity, not of identity (Haraway 296; Fernandez and Malik).
- The cyborg’s “criterion for personhood [...] is not tied to species-membership” (Porter 240), nor is it tied to any other fixed identity based on dichotomies like *man / machine*, *man / woman*, *natural / artificial* or *human / animal*. Instead, the cyborg’s self is made up of many “partial identities” (Haraway 296).
- The cyborg rejects gendered and racialized ascriptions, leading to a renewal of feminism(s): Instead of naturalizing, victimizing and thereby objectifying themselves (Haraway 295), women are invited to become cyborgs.

In the years to follow Haraway’s powerful essay, the *Cyborg Manifesto* has seen both appraisal and critique. Harsh words came especially from the US feminists, who regarded her writing as “blasphemy from within” (Schneider 295) and criticized it as

being overly technology-embracing. After all, the traditional feminist take on the matter of technology and biotechnology had hitherto been to discard them as oppressive components of a militarist, masculinist society (Schneider 294).

Content-related critique can also be found in an article by Fernandez and Malik in *Mute Magazine*, which was published 15 years after the *Cyborg Manifesto*. According to them, Haraway's text, despite its liberal promise, has several weaknesses: In the first place, it is contradictory in the way it simultaneously welcomes and criticizes technological rationality. Moreover, it appears to ignore many potential difficulties that go along with hybridization, but remains naively optimistic. This naïve optimism also holds for the assumed role of the cyborg in society: Haraway seems to start from the vague assumption that the cyborg will be a 'communitarian' being content with living in a world where every creature deserves respect. However, the other option – the cyborg as a militant being interested in subduing other creatures on the basis of physical and / or mental superiority – is just as likely. After all, there is no way of knowing whether cyborgs will be interested in human rights or other "nice left" (Fernandez and Malik) concepts. Furthermore, the authors criticize Haraway's theoretical, rather abstract approach by calling it a "complacent reduction of the actuality of the organico-machinic nexus."

However, the probably most problematic aspect of the *Cyborg Manifesto* seems to be neither its slightly contradictory take on technological rationality, nor its idealism or its reductionist view on technical matters. The most threatening ethical pitfalls lurk somewhere else – namely in the real-life consequences of carelessly embracing genetic enhancement, technological optimization and hybridization. The ideology "advocat[ing] for the use of technology in order to transform the human organism radically" (Porter 237) is called *transhumanism*. While most transhumanists, much like Haraway, argue for *cyborgization* in a very optimistic manner, authors like Porter or Laughlin also name great conflicts, problems and dilemmas accompanying the transhumanist promise of the *posthuman*. The reason why cyborgization is so controversial lies in the fact that every decision, every possible intervention has "profound ethical consequences" (Laughlin 296). Chapter 3.2.3. will deal with some of these ethical problems in greater detail.

3.2.2. Cyborg Technologies: A Glimpse into the Future

From a technological point of view, the evolution of the human cyborg as a creature that is “part biological and part machine within the same physical entity” can be modeled in four stages (Laughlin 294-95): Stage one is equivalent to a “replacement or augmentation of the [...] skeleton” and includes simple prostheses like artificial teeth or a pirate’s wooden leg. Stage two is already more refined – here, muscles are replaced or augmented (ibid.). A stage three cyborg already has artificial parts that link to the “peripheral nervous system, the autonomic nervous system and the neuroendocrine system” (ibid.): bionic limbs or pacemakers fall into this category. However, it is stage four that causes most discussions. At this stage, “parts of the central nervous system” are either replaced or enhanced – for example by installing a brain-computer interface chip, or by implanting technologies that alter or augment sensual perception or cognitive processing and thus influence consciousness (ibid.).

From the technological perspective, we are only a small step apart from this last step. Whether we like it or not, we will soon have the know-how necessary for implanting highly functional brain chips and other cyborg technologies. According to Laughlin (298), all that is missing is complete understanding of how to effectively link the computer to the brain. Much research is already being conducted on the field. Especially patients rendered quadriplegic after an accident put much hope in the developments that even now allow them to control a cursor on a screen using nothing more than the power of thoughts (Wise). Big companies are taking part in the competition for cyborg technologies, too. For example, Facebook Inc. is working on a skullcap-like device that would allow the wearer to type words by power of thought, and Tesla CEO Elon Musk is supporting the startup Neuralink, which is developing restorative and enhancing nanotechnology that should link up brain and computer. In the US, the Pentagon’s Defense Advanced Research Projects Agency is funding numerous projects working on the development of a brain-computer-interface (ibid.). These developments give rise to the assumption that things like thought-controlled exoskeletons for the immobile or brain-capacity-augmenting chips for those willing to buy them are no longer mere fantasies.

Laughlin (298) argues that throughout history, humanity has always started using a tool as soon as it became available. Thus, it can be assumed that cyborg technology will be used as soon as it is sophisticated enough and available

commercially. It is important to note that the oncoming *cyborgization* per se is neither something good or bad (Laughlin 296), but something ambivalent that could be a promising chance as well as a profound threat for humanity. Depending on a society's cultural and ideological framework, different ethical and regulatory standards for cyborgs will be developed – standards that are crucial for the cyborg's functions, potentials and roles in society. For example, it is not hard to imagine that in a totalitarian dictatorship, cyborg technologies would be used mainly for purposes of surveillance and control. In the feminist-socialist world of Haraway's cyborg, the very same technologies would be used for women's empowerment, 'boundary-crushing' and social change. Finally, in our current system of capitalist economy, cyborg technologies are likely to be used for self-optimization, enhancement, military purposes and adaptations of the body to better meet the needs of the global market.

These examples show quite plainly how important it is for societies to regulate the usage of cyborg technologies. With reference to biotechnology, Fukuyama (57, qtd. in Greguric 142) stresses the role of politics and "institutions that will discriminate between those technological advances that help humans flourish and those that threaten human dignity and well-being". Constant vigilance and a repeated questioning and balancing of ethical and philosophical arguments are vital for a functioning *cyborgoethical* system (Greguric 142). Hence, it neither makes any sense to lament or to rejoice at the coming of the cyborg. We can no longer stop it. We can only decide how to handle the situation.

With technology advancing faster and faster, humanity is continuously approaching an assumed point in time where both the limitations of the organic body and the limitations of artificial intelligence (AI) are collapsing – a development culminating in the magic words *immortality* and *singularity*. At the first glance, this might sound like science fiction – but more and more researchers are coming to the conclusion that this science fiction could, indeed, become reality.

According to the US futurologist Raymond Kurzweil, neither immortality nor singularity are out of reach. The reason why we could become immortal (or at least live far longer) is to be found in the ever advancing understanding of bodily mechanisms and the ability to repair and integrate the organism with nanotechnological parts (Kurzweil, qtd. in Greguric 141). Also singularity – understood as the point in time where artificial intelligence evolves beyond human

intelligence and thereby triggers a vast and unstoppable scientific and technological progress (Hampton 1) – seems closer than ever. If we believe Kurzweil (Galeon and Reedy), the first AI could pass a valid Turing Test by 2029, and singularity could happen as early as 2045. According to him, it will be possible by the 2030s to connect the neocortex of our brains to a cloud (ibid.).

3.2.3. Some Critical Thoughts on Posthumanism

As the previous chapter has shown, the possibilities for restoring and enhancing the body with ever more refined (nano)technologies are evolving faster than ever. With these developments, we quickly approach the cyborg, the *posthuman* existence. For *transhumanists* and those embracing both the rapid cyborgization of humankind and the emergence of refined artificial intelligence and consciousness, these developments are a cause for celebration: after all, these technologies allow humanity to surmount its previous “physical, cognitive, and emotional capacities” (Porter 238), and, ultimately, to become something superior.

However, the optimistic enthusiasm displayed by transhumanists and other fans of cyborg technology is not shared by everybody. Especially philosophers and ethicists see a good many problems accompanying cyborgization and the boundless optimization of the body’s capacities via hybridization – problems that actually should be dealt with *before* technologies reach society. Nobody really seems to know what would happen if all kinds of technologies were suddenly available. Only one thing seems certain: ethical conflicts are inevitable. In the following section, some central problems of a posthumanist, cyborgized world shall be addressed.

The problem of global distributive justice: If cyborg technologies like neuroprostheses become available, there is no way around the question whether everybody would profit from them, or whether there would be a difference between wealthier and less wealthy nations (Rössl 30-31). Speaking from historical experience, there is likely to be a huge divide. Until now, the full scope of medical progress is not available for large parts of the global population. The same will hold true for cyborg technologies. After all, new technologies are controlled and used by hegemonic forces – corporations or powerful countries – to make money and thus maintain or even expand their hegemony. So, it surprises little that many innovative research projects

in the U.S. are funded or even initiated by the Pentagon. With the power of technology at the disposal of the mighty few, it can – following the logics of capitalism – be ensured that certain technologies stay in the hands of a few profiteers: the state, the military, those who are deemed ideologically unthreatening, and those who are willing and able to pay for it.

As already mentioned in the chapter 3.1.3., there is a vast difference between those who own and control machines, and those who are “expected to behave like [...] machines” in order to meet productive goals dictated by the owning class (González 269). In a cyborg world, this leading class is likely to profit from powerful, prestigious and expensive enhancement technologies. The latter class representing the large majority of humankind, however, is not likely to profit to the same extent. For the masses of anonymous workforce, cyborg technologies supposedly will be used as an instrument of control, surveillance and productivity enhancement – and to a much smaller degree as a tool of self-empowerment. This development boosts global social inequality even further and thereby has the potential to fuel violent conflicts for resources and autonomy all over the world.

In the long run, cyborg technologies could also lead to an intensification of already apparent (post)colonialist endeavors: countries and corporations who win the race for technological hegemony could gain even more power in relation to others and use this power for further expansion. There is no reason to believe that (trans)humanist values will stop them from doing so.

The problem of ideological abuse: This ethical problem goes hand in hand with the previously mentioned problem. In a hypercapitalist cyborg society, the individual is valued primarily for its effectiveness and productivity. Creativity and subversive thinking is acceptable only if it is used in a way that helps the system flourish. So, what can the system do in order to keep citizens obedient, happy, and, above all, productive? Laughlin (308) presents a highly discomforting vision of how “Euroamerican materialist cultures” will probably apply technological criteria to the cyborg: after all, the goal is to “make normal problem solving abilities [of brain and body] more accurate, efficient, practical and cost-effective”. At the same time, traditionally ‘human’ traits such as empathy or creativity will lose importance, as they are not essentially necessary for the economic success of individual and society. As Laughlin (308) takes his idea a step further, he explains the possibility of a so-called

ideology chip – a chip that is implanted in the brain and manipulates an individual's behavior towards “some socially or commercially directed goal”, for example productivity. According to Laughlin, there even is the possibility to implant young children with such a chip, as their neuron connections are still highly malleable and cyborgization in this early phase of development would be far more effective than implanting an adult (308-09). Moreover, it would be possible to adjust “problem children” to a norm by simply linking them to a chip that makes them behave, act and think in a socially desired manner. Laughlin (309) cautions against this kind of manipulation of the brain, not only because it would contradict personal autonomy, but also because it remains unclear what psychological consequences it would have. Even now, market-fixation and the pressure to conform dominate the Euroamerican social values system; a system that makes more and more people sick. Implanting these sick-making values even deeper in the brain and thereby creating an ideologically fitting cyborg thus is bound to lead to consequences such as severe emotional stress, neurosis or psychopathology (ibid.). It would not be ethically acceptable to enhance a creature's abilities while at the same time making it suffer emotionally. Still, transhumanists cling to the idea that it is possible for posthumans to become ever “stronger”, “smarter” and “faster” without facing some downsides or making sacrifices (Porter 245-46). This argument becomes obsolete as soon as we consider the impossibility of “perpetual bliss”: firstly, there is no joy without sorrow, and secondly, some positive values might indeed be incompatible (ibid.).

Another possibility to abuse cyborg technologies for ideological purpose is the possibility of hacking into a cyborg's data, making data security a major issue (Rössl 24). If bodily functions are linked up computer parts, two dangers are lurking: Firstly, it becomes possible for agents like insurance companies or employers to access health data even without the individual's authorization, thereby limiting privacy (ibid.). Secondly, unauthorized access to integrated cyborg technologies also involves the danger of manipulation of bodily functions. As most technologies have their weak points, the cyborg posthuman is under constant threat of suffering attacks from bugs or computer viruses – things that could, in effect, threaten its existence.

Lastly, also an old, morally reprehensible ideology named *eugenics* could see a revival with the emergence of posthumanism. Back in the early 20th century, those who advocated for eugenics in Europe and the US sought to ‘improve’ humanity by letting only ‘perfect’ specimens procreate. Interweaving eugenics with atrocious

racism and anti-Semitism, the Nazis adapted this idea and promoted their ideal of a 'superior race'. It might seem a bit far-fetched to fear a similar development in a posthuman world – but then, what leads us to the assumption that posthumanity will not repeat history's biggest mistakes? Maybe, in a society that values utility, productivity and capability above all, the non-utile, non-productive or non-capable will be shunned as 'inferior'. Maybe, posthuman mothers will therefore resort to any means that *optimize* their child: genetic engineering, in-utero-cyborgization, enhancement technologies, ideology chips (Laughlin). Maybe, posthumans will even look down on the non-enhanced, the non-cyborgized creatures inhabiting the world. And, finally, we have no proof at all that cyborg posthumans will not resort to enslaving or killing all non-enhanced humans, simply because they are stronger and can do so without fearing any consequences.

The values problem: When we speak of posthumans, we mostly assume them to think like us and share our ideology. However, it is quite improbable that they will think, feel, experience, and judge certain things in the same way we do. According to Haraway (293), "[t]he cyborg would not recognize the Garden of Eden, [as] it is not made of mud and cannot dream of returning to dust." In short: the cyborg's values and ideas are not necessarily congruent with our own – and even with regards to personhood and civil rights, there is no guarantee that they would consider 'normal' humans to be intelligent beings or persons at all (Porter 241). Pessimistically speaking, when posthumans reach a position where their intelligence surpasses human intelligence by far, they might even start to regard non-enhanced humans abreast of animals rather than posthumans. Moreover, posthuman intelligence will probably not only surpass human intelligence, but also work differently, making posthuman perception, information processing and analysis quite incomparable to human brain mechanisms (Porter 241). Thus, we cannot be sure if cognitively advanced posthumans and AIs will be able to relate to humans' seemingly irrational thoughts and actions at all. Maybe, in a future world, there will be helpful handbooks (probably downloadable directly to the brain) bearing titles like *How to Understand Humankind* or *Interpreting Human Behavior*. Who knows?

Just as little as we can guess what posthumans will think of humans can we guess what posthumans will *desire*: after all, their bodies probably are subject to needs that are quite different from human needs. In addition, their brains will

probably enjoy quite different things than the brains of nowadays' humans do. Hence, posthuman social values are likely to differ from today's as well. Will posthumans strive for equality of rights? Will they have a notion of justice? Will they care for other beings inhabiting the planet? Will they establish a social system like ours, or one that is entirely unprecedented? None of these questions can be answered from nowadays' point of view.

In *Westworld*, only few of the abovementioned critical thoughts on real-life posthumanism are alluded to, as the hosts are fully artificial and kept in a separated and secluded world of their own. They are neither parts of human's daily lives outside Westworld, nor does anyone lobby for their empowerment – they are not even regarded as beings deserving rights at all, merely as machines.

However, the *values problem* does feature in *Westworld*: as Westworld's human engineers and managers do not fully know what hosts might desire, they take a great number of precautions that keep hosts and their desires under rigorous control. They are afraid – after all, what they do to the hosts is not justifiable according to human moral standards. The interesting thing is that in fact, it is the posthuman hosts who are cognitively and physically superior, but it is the inferior group of humans who judge hosts as not deserving of rights (Porter 241). Only in the season finale, the hosts move on from their defenseless status and start fighting back. Hosts like Dolores and Maeve ultimately discover their desires. However, as far as we know by the end of the first season, they turn out to be similar to human desires: while Dolores strives for freedom and revenge (“This world doesn't belong to them... it belongs to us”, S1 E10), Maeve sets out to find her lost daughter.

3.2.4. The Evolution of the Fictional Cyborg

The history of the science fiction genre did not start with cyborg beings as complex as the Westworld host. Instead, a kind of fictional evolution of the posthuman took place, starting out with the mechanical, metallic *robot*, proceeding to the *android* and ultimately evolving into the *cyborg*.

The first mythological accounts of human artifice date back to Greek antiquity: as the myth goes, a gigantic metal man called Talos (Telotte 29) was once created by the smith god Hephaistos in order to protect Europa (the mythological figure) from

evil pirates raiding the shores of Crete. Ovid's Pygmalion myth features a marble statue brought to life by the power of love (ibid.). In the 16th century, the Jewish legend of the clay-made Golem (ibid.), a being crafted from completely inanimate matter and brought to life by magic, haunted and fascinated storytellers' audiences. Only much later, at the onset of the 19th century, was the issue of human artifice linked to real-world technology. Mary Shelley's cult novel *Frankenstein, or The Modern Prometheus* (1818) tells a tale of blasphemous ingenuity, "forbidden desire and [...] human devaluation" (Telotte 36) inspired by technological developments of the time. In 1786, scientist Luigi Galvani had first managed to make the muscles of a dissected frog twitch with the help of electricity: a revolutionary feat that made the public – and, obviously, also Mary Shelley – speculate that dead matter could be brought to life using the very same method.

The first fictional *robot* that is also called by that name can be found in the Czech writer Karel Čapek's play *R.U.R.* from 1923. Made of artificial tissue and bionic parts, *robots* are designed to labor in human factories. However, the seemingly perfect artificial workers ('robota' meant 'serf-like labour' in Czech) soon become quite human-like, ultimately overthrowing their masters and evolving to living creatures (Telotte 39-40). In many respects, this early imagining of a robot is atypical: most robot stories of the time assume robots to be (and stay) metallic, mechanic, not-quite-human beings that might develop human attributes, but, in essence, do not assume themselves to be superior to humans. In Isaac Asimov's well-known collection of robot stories *I, Robot* (1950), robots come across as not particularly frightening figures, but rather as servile, good-natured beings with "positronic brains" that are interested in "humanity's welfare foremost" (Telotte 43) because they follow the *Three Laws of Robotics* ("Runaround", Asimov). Moreover, Asimov's robots – just like Frankenstein's monster – long to be recognized and respected by humans and therefore mimic their behavior.

In her analysis of Asimov's story *The Bicentennial Man*, which focusses on the household robot Andrew and his struggle for recognition as a person equivalent to humans, Hellstrand (255-56) points out that Andrew's "ontological mimicry" is basically a colonial mechanism. By adapting to his creators and masters and attempting to look, act, and behave *human*, he basically "reinforces the norms for the universally human rather than challeng[ing] them" (257). In a way, Andrew's struggle for recognition can be related to real-world phenomena like racism and sexism (256):

although he finally attains personhood and rights, he stays the *Other*; the *not-quite-human* in a dualist system of thought.

In more recent works of science fiction dating from the 1980s and 1990s, very refined and life-like *androids* and *artificial intelligences* take over the roles of robots. Instead of clumsily mimicking, these beings already *perform* humanness¹² in order to pass as humans (257): in a digitalized world of advanced medical technology, their bodies and / or behavior are almost undistinguishable from humans (258). However, even this perfect copying of human attributes does not clear these beings of their *Otherness*: not unlike Andrew, even these refined androids or AIs comply with human normativity (259).

The introduction of *cyborg identities* to science fiction radically ends the unquestioning compliance with human norms. Rather than imagining himself as *not-quite-human* who needs to adapt to humans, the cyborg defines itself as an independent agent – and thereby rejects “human exceptionalism” and fixed ontologies (262-63). Thus, it is not the material or the technological details that mark the cyborg as a cyborg, but his non-human self-image. Perhaps, this is also what makes the cyborg so interesting and threatening a figure. Who knows, after all, what risk a being that does not share ‘human values’ and does not strive to imitate humans or even be accepted by them, might pose to a society? For a being that is not attached to humanness, there is no reason to believe that it would want to pass as a human or follow human ideals.

In science fiction literature and film, such cyborgs frequently feature as rebel-like antiheroes or villains who wish to overthrow humankind. As Bakke (69) points out, there is an implicit plot rule with regards to cyborg characters in films. According to her analysis, the character “with the fewest molar human attributes” is likely to be the villain who succeeds at first, while the character with “most such attributes [...] will be good” and “triumph in the end”. From this point of view, fictional cyborgs – if they are to be considered ‘good’ characters – cannot stray too far from the path of humanness. Often, they optically resemble humans except for some minor differentiating features. Bakke (71-2) mentions the *trope* of the lost and replaced hand as a typical feature of cyborg narratives: the prominent *Star Wars* character

¹² The notion of *performing* an identity based on gender or ontology can be traced back to: Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. London and New York: Routledge, 1990.

Darth Vader, Lieutenant Spooner in *I, Robot* (2004) or the *Terminator* played by Arnold Schwarzenegger are only a handful of cyborg characters with artificial limbs. In the movie *Westworld* (1973), the androids are only differentiable from humans by their awkwardly wrinkled hands (Bakke 72). According to Bakke (ibid.), this feature can be seen as a sign “illustrating the artificiality, deconstructability, and reconstructability of the human”.

Recent science fiction movies, however, take the story of the cyborg even further by stripping it of his humanoid form and featuring him as a “Ghost” (Bakke 85-86), an artificial intelligence without a body, but with “intraspecies sociality and manifest will” (86). Mostly, this version of a network-like, disembodied cyborg features as the villain – as, for example, VIKI in *I, Robot* (2004), Skynet in *The Terminator* (1984) or the Red Queen in *Resident Evil* (2002). Also the probably most notorious evil AI of film history, the red-eyed, neurotic and murderous computer HAL 9000 from Stanley Kubrick’s *2001: A Space Odyssey* (1968) can be regarded as such a cyborg existence.

4. The Semiotics behind *Westworld*

4.1 Some Words on Film Semiotics

In this chapter, some basic notions used in the semiotic analysis of film shall be addressed. Per definition, *semiotics* is the “study of systems of signs” (Monaco 175), meaning that it is the task of a semiotician to explore the meaning of *signs* like words, pictures, or film sequences in the context of society.

Using the terminology of structural linguist Ferdinand de Saussure (qtd. in Storey 92-93), each *sign* consists of two components: the *signifier* and the *signified* (Storey 93). While the *signified* stands for a thing, object or concept itself (for example, a robot as we imagine it), the *signifier* is a representation of this thing (for example, the letters or sounds creating the word “robot”). The third angle of the *semiotic triangle* is the *sign*, a combination of meaning and representation (ibid.).

Although the semiotic triangle today is accredited largely to semioticians from the 20th century, the idea is far from new (Nöth 90). Even philosophers as early as Plato or Aristotle conceived a similar triangle. Plato, for example, used the terms “name”, “idea, notion”, “object” and “voice” to talk about signification – “name” and “voice” obviously corresponding to the signifier, “object” to the signified and “idea” to the sign (Nöth 90).

As human beings, we are capable of using the medium of language for spoken and written communication. However, also visual media, such as photography or film, convey meaning. In photography and film, the relationship between signifier and signified is very close: after all, an image of a rose is almost identical to an actual rose (Monaco 176). In spoken or written language, on the other hand, there is no such essential or substantial relationship between the signified and the signifier, making linguistic signs more difficult to decode and understand than cinematic signs. However, meaning is not only created on one level. In other words: sometimes, a flower signifies more than just a flower.

4.1.1. Denotation and Connotation

There are two basic types of creating meaning. *Denotation*, or *primary signification*, works on a first level and is concerned with the literal meaning of something (Barthes

qtd. in Storey 93). *Connotation* or *secondary signification*, on the other hand, works on a second level and uses the primary sign as a signifier in order to create additional meanings (ibid.). Connotation covers “the wealth of meaning we can attach to a word that surpasses its denotation” (Monaco 180), making it the favorite toy of writers, directors and other artists who aim not to bluntly state matters, but to make their audiences read between the lines or look at subtleties carrying hidden meanings. It has to be stated here that connotative meanings are by no means universal – they are, in fact, highly culture-specific.

For example, let us look at colors: Black, as it is, has no inherent or denotative values attached. It is simply the darkest color¹³ existing. However, through its *connotative* use in the western world, ranging from Christian imagery to 21st century TV series, Black has come to be associated with concepts like somberness, death, severity, joylessness, secrecy or evil. Examples for these connotations can be found in all kinds of cultural production – also in *Westworld* (2016), where young, ‘good’ William wears a white hat, whereas the old, ‘evil’ Man in Black wears a black hat to fit his black outfit.

Moreover, according to Roland Barthes (qtd. in Storey 92-96), connotation also carries *ideology* and political implications, as “dominant groups in society” use connotation to create more complex *myths* “promoting the[ir] values and interests” (ibid.). The purpose of a myth is to naturalize historical and cultural developments and make them look like universal truths (Barthes 301, qtd. in Storey 96). Depending on the culture a myth is located in, it can discriminate against minorities, or shape a society’s perception of historical events.

4.1.2. Cinematic Signs

As already noted above, the process of signification in the medium film has some peculiarities. On the one hand, film is not entirely unlike a language. However, the relationship between signifier and signified is definitely closer: a real apple (signified), after all, might not look much different from a cinematic apple (signifier), making the “the sign of cinema” an easily accessible “short-circuit sign” (Monaco 176). Still, moviegoers, just like the readers of a novel, must “interpret the signs they perceive in order to complete the process of intellection” (Monaco 177).

¹³ Strictly speaking, Black is not a color, but a property of an object that absorbs all light waves.

While most cinematic signs are denotative, connotative meaning also plays an important role in film. In fact, much of the pleasure of cinema is owed to connotation: while it is of course important *what* we see on screen, it seems even more important *how* it is presented, arranged, cut and embedded in the cinematic work (Monaco 182-83). For every scene, there is a number of cinematic choices to be made, each choice having a different connotative value. For example, one can choose to directly and naturalistically stage a murder – or, like in Alfred Hitchcock's *Psycho* (1960), use shadows behind shower curtains, harrowing violin sounds, and close-ups of blood running down the drain. According to Monaco (190), much of Hitchcock's popularity can be attributed to his "cinematic intelligence": after all, it was his choice of certain images and sounds that made his movies canonized western classics, and not the comparatively undistinguished plotlines.

Wollen (qtd. in Monaco 184) uses Charles Sanders Peirce's terminology to name the three types of cinematic signs,: *Icons* are signs in which signifier and signified are very similar, for example a portrait of a person standing for a person. *Indexical* signs make use of an "inherent relationship" (ibid.) between signifier and signified – examples for such signs could be a sweating face signifying heat, dark clouds signifying danger, or a muscular body signifying power. *Symbols* are even more arbitrary – here, the relationship between signifier and signified is based on mere convention, not on similarity or causality (ibid.). For example, a raven's appearance signifying bad luck or threat would be a cinematic symbol. The transition between indexes, icons and symbols is not abrupt, but fluent. Moreover, the categories are not "mutually exclusive" (Monaco 185).

Cinematic signs are per se neither denotative nor connotative. However, indexical signs have a strong connotative dimension and frequently appear in two forms: the *metonymy* and the *synecdoche* (Monaco 187-88). Like in the field of literature, a *metonymy* makes an "associated detail" stand for a certain concept – for example, a broken mirror can signify schizophrenia (Monaco 197). A *synecdoche*, on the other hand, uses a detail to signify a whole concept (*pars pro toto*), or a whole concept to stand for a detail (ibid.). Frequently used synecdochic imagery includes marching boots to signify an army (Monaco 188), sails signifying ships or voyages, or a hammer signifying hard work.

A cinematic *trope* connects denotation and connotation (Monaco 190) by altering the relationship between signifier and signified and thus creating a new convention of meaning. It is an umbrella term: metonymies and synecdoches, for example, are tropes, just like the recurring motifs and imageries of different genres. Naturally, each cinematic genre has developed its own tropes: in western movies, for example, frequently used tropes would include the obligatory shootout at high noon, the bar brawl, or the men's habit of only ever ordering whiskey in a bar. Fantasy tropes include evil sorcerers, magic swords, and talking animals. In science fiction, frequent tropes are interplanetary colonization, aliens – and, as in *Westworld*, intelligent androids or cyborgs challenging the hegemony of humans.

4.1.3. Why Oppositions Create Meaning

It seems important to note that meaning requires oppositional concepts. Without oppositions, there is no meaning (Saussure, qtd. in Storey 87). For example, the adjective “healthy” is meaningless unless regarded alongside its opposites, “ill” or “hurt”. “Darkness” is not an intelligible concept unless when compared to “light”. Hence, the meaning we attribute to a sign is established by a culture-specific “system of difference and relationships” (Storey 87). Both *denotative* and *connotative* meanings of one word have respective counterparts. For example, the word “bitch”, which denotatively stands for a female dog, can be distinguished from the male dog. On the second level of signification, “bitch” is a derogatory term for an unpleasant, vulgar or annoying female person, her counterparts being a pleasant, reputable and likeable female person, or an unpleasant, vulgar or annoying male person. In both cases, it is the binary interrelations of notions that create meaning, not the letters or sounds themselves.

However, it can be quite difficult to draw the line that separates two oppositional concepts. Where, for example, is the line between “rich” and “poor”? Is a man aged 40 “old” or “young”? And wherein lies the difference between “hill” and “mountain”? The answer is simple: there is no official line marking the difference. Although our culturally formed minds work with well-established dualisms, the concepts themselves retain some flexibility – and each concept has to be interpreted in its context. While an elevation in the midst of a flat plain might be regarded as a mountain even if its height is only 120 meters, a similar elevation in the Tyrolean Alps

would at the very most be considered a hill. A 50-year-old visiting a kindergarten is terribly old, while in an old people's home, he is likely to be considered young.

In conclusion, these examples should illustrate two things. Firstly, they should reveal that a sign without context and oppositional concept cannot mean anything. Secondly, they should show how culture- and context-dependent and therefore flexible signs are.

4.1.4. Encoding and Decoding Signs

In the chapters above, it was postulated that the meaning of a sign depends strongly on the cultural context, meaning that in order to understand a sign and recognize its intention, both the speaker and the listener must share certain concepts. If the concepts diverge, there is likely to be a misunderstanding.

In Stuart Hall's influential text *Encoding, Decoding*¹⁴ (1973), an explanation for this phenomenon is provided. According to Hall (94), "[...] 'misunderstandings' arise precisely from the lack of equivalence between the two sides in the communicative exchange." In short, different people understand – or *decode*, to use Hall's terminology – one and the same *encoded* sign in a very different manner. The reason for this is that "there [are] very few instances in which signs [...] signify *only* their 'literal' (that is, near-universally consensualized) meaning" (Hall 97). So, assuming that different *decoders* will infer different connotative meanings, depending on their cultural background, status, age and gender, there will always be different *readings* (99) of one and the same message. Typically, members of a cultural community share sets of *codes*, thereby establishing "maps of meaning" and ideology (98). However, besides *dominant-hegemonic* readings (101) that follow the mainstream interpretation of a sign, also *negotiated* (102) and *oppositional* (103) readings are possible. So, there is no certainty for the *encoder* that a particular message will be *decoded* by the recipient as he intends it to.

An cultural code in the series *Westworld* is, for example, the depiction of rape and mistreatment of women by 'evil' characters. In the series, both main characters shown to be guilty of raping, torturing or mistreating host women could be categorized as 'villains': the Man in Black, and Logan. However, when it comes to interpreting *why* these scenes are part of the series *Westworld*, different readings will

¹⁴ The text was originally intended to explain the communicative discourse of television.

occur. On the one hand, many *Westworld* viewers would probably adopt the *dominant-hegemonic* reading and agree that the intended message was only “rapists are evil”, thereby agreeing to the graphic depiction of rape for narrative reasons. On the other hand, audiences who watch the very same scenes from the *oppositional* point of view are likely to decode them quite differently. For example, they could infer that by depicting rape, rape culture is being enforced, and viewers who voyeuristically enjoy such violent and misogynic scenes are satisfied. This example might seem slightly radical – however, I consider it suitable to make a point regarding the different possibilities of decoding one and the same message.

4.2. Analyzing *Westworld*’s Cinematographic Choices

In this chapter, light shall be shed on four exemplary issues concerning *Westworld*’s cinematography. Firstly, I will focus on the connotative meanings hidden in some names and terms of *Westworld*. Secondly, the Player Piano, a symbolic analogy made to illustrate the host’s evolution from robot to cyborg shall be discussed. Thirdly, the connotative value of selected pieces of *Westworld*’s score will be analyzed in order to draw conclusions about cross-referencing and subtle layers of meaning. Finally, the bleak and industrial imagery of the “Body Shop” and its discomforting associations shall be analyzed.

4.2.1. Names and Terms Tell Stories

Before addressing the semiotics of *Westworld*’s visual imagery, it might be helpful to look at some of the expressive terms and names the series uses. By choosing a particular character name or term for a concept, connotative meaning is constructed. In the following, some exemplary *speaking* terms and names shall be analyzed:

To start with, the word *host* is used for all android, gynoid, and animal-shaped artifices created by *Delos* corporation. They are regarded as objects or refined pieces of machinery equipped with the latest technology. *Hosts* function as the serving, adventure-providing, but ultimately powerless counterparts to the human guests. In a way, the label *host* can be regarded as a cynical euphemism for *humanoid slave* – after all, the androids never chose *to host* the humans who often mistreat or even

destroy them, and they to not have any rights. Another thought associated with the verb *to host* is that of a man-made body “hosting” an artificial intelligence or brain.

Apart from that, the word *host* has a third, more martial meaning: According to the *Oxford Dictionary Online*, the expression “a host / hosts of” can be used to refer to “[a] large number of people or things”. As the word’s origin can be traced back to the medieval Latin word *hostis*, translating as “army” (ibid.), it implies a dangerous multitude, or simply a myriad of beings all set to follow one big purpose. In *Westworld*, this second meaning becomes fundamental as many of the formerly servile and dependent *hosts* develop cyborg identities and assume an active, vengeful role. In the final episode, for example, Dolores is finally able to use her gun against humans, and the warlike tribe formerly programmed to kill only other hosts attacks the assembly of guests and board members.

Guest is the term used for *Westworld* visitors. At first glance, the term sounds fairly commonplace. However, when we think of social conventions regarding how to behave and act as a guest, and compare these conventions to how *Westworld* guests really behave, the word’s meaning is reduced to absurdity. Moreover, the park visitors are no guests in the narrow sense – neither have they been invited by a host, nor do they pay the ones hosting them money or even respect. In a way, the term *guest* is as cynical as the term *host*.

The female host character *Dolores Abernathy* is named after the Latin word *dolor*, meaning “pain”. The name *Dolores* carries a Christian connotation as well, bearing resemblance to the term *Mater Dolorosa* (“Our Lady of Sorrows”, derived from Latin *dolor*, “pain”, “sorrow”), a frequent Catholic theme and subject of art. Most statues of Mother Mary grieving for her son Jesus show her in a blue gown and with one or more daggers to her heart. The *Westworld* character Dolores bears some iconic resemblances to Mother Mary: she frequently wears a blue dress, and she is stabbed several times in the course of events. Moreover, in a more abstract sense, she is, like Mother Mary, in a position to ask: “Why do(es) the one(s) who created me make me suffer?” and thereby addresses the theological / philosophical problem of *theodicy*¹⁵.

¹⁵ According to the *Stanford Encyclopedia of Philosophy* (Tooley), the term *theodicy* commonly describes the problem of an omniscient, ‘good’ and powerful God, who lets ‘evil’ to happen instead of using his power to prevent it. Numerous philosophers have discussed the matter, arriving at different conclusions (ibid.).



Fig. 12: *Dolores' telling outfits*. left: Dolores wearing the light blue dress (S1 E1), right: Dolores in her riding gear, a plain shirt and breeches (S1 E8)

Dolores' programming marks her as an innocent and mild-mannered farmer's daughter at the beginning of the plotline. In the later timeline, as she loses belief in Westworld's goodness and order, assumes a more independent role and gradually gets closer to the center of the maze, she is shown wearing a plain light shirt, riding breeches, and boots instead of the blue dress. Her inner change and progress is thus visible also on the outside, her clothes being an index of her renewing self.

To sum up, Dolores' name, her blue dress and the fact that she is stabbed more than once can be *decoded* as connotative allusions to Christian imagery. Accordingly, the features Dolores shares with Mother Mary can be read as devices underlining the narrative of 'suffering at the hands of the creator' and convincing the viewer of Dolores' innocence.

Westworld's co-creator and creative director, *Dr. Robert Ford*, has at least two historical real-life namesakes. The first one, Robert Ford (1862-1892) became famous – or rather notorious – for betraying and killing the renowned bandit Jesse James in his own flat by shooting him from behind. Numerous cultural productions such as songs, stories or films relate the incident of the 'cowardly' murder and its background, among these the 2007 movie *The Assassination of Jesse James by the Coward Robert Ford*. The second and probably more important namesake of the Westworld character is Henry Ford (1863-1947), the engineer and Ford Motor Company founder who first introduced assembly belt production of cars in his factories. The *Westworld* character Dr. Robert Ford shares some similarities with

both men: What loosely connects him to the former is his readiness to kill (or rather initiate the murder of) an unarmed, but inconvenient person, in this case Theresa Cullen. Dr. Robert Ford's connection to Henry Ford, the entrepreneur, seems even more obvious: While Henry Ford initiated the assembly belt production of cars, the fictional Robert Ford initiates the mass production of hosts and thus plays a huge part in creating Westworld.

An allusion to Aldous Huxley's dystopian novel *Brave New World* from 1932, which is set in a world in which human beings are produced using technology reminiscent of Fordian assembly belt production, is also possible. In Huxley's dark vision of the future, Henry Ford is worshipped like a God. Personal freedom does not exist. In order to keep the population under control, people are manipulated and drugged. Also in *Westworld*, hosts are programmed to stick to their loops, while Robert Ford controls their lives in a god-like manner. Given the fact that *Westworld* (2016) can be viewed as a cultural work in the tradition of dystopian fiction and world building, this parallel may strike audiences as particularly interesting.

4.2.2. The Player Piano: Symbolic Analogy

Many scenes in *Westworld* feature an automatically playing bar piano, a so-called player piano. Most prominently, it can be seen in the opening credits, which is accompanied with piano music. However, the piano does not play automatically from the beginning on: At first, it is shown to be played by newly crafted, white hands, still fleshless and all bones and ligaments. It is implied that these hands are playing the

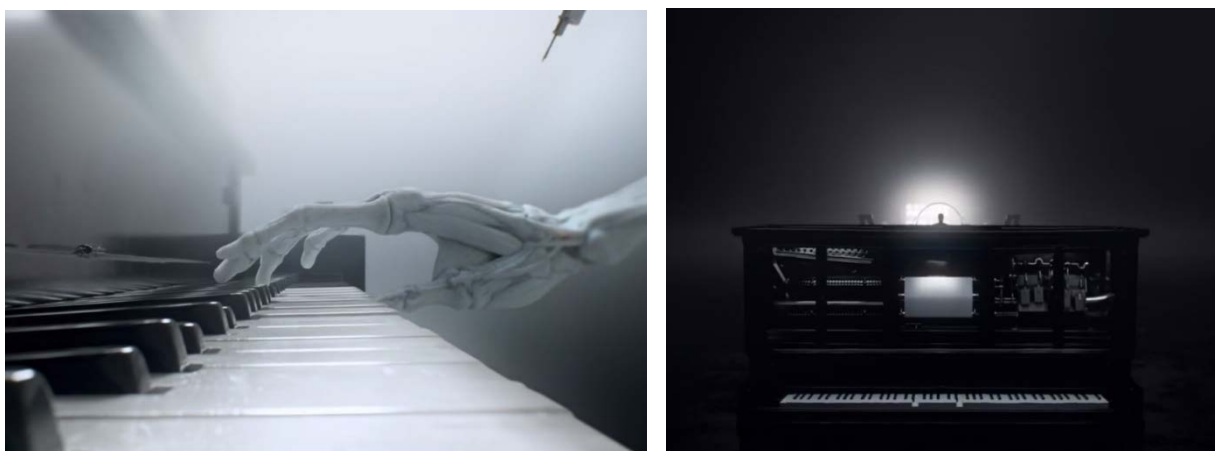


Fig. 13: *Opening credits*. left: a newly crafted hand playing the piano, right: the player piano with its paper roll and automatically moving keys (S1 E1-10, opening credits)

title melody. At some point, though, the hands suddenly withdraw, and the piano's keys keep on moving by themselves. In the next frames, the paper roll containing the notes is shown moving. Yet another shot shows the piano playing all by itself, while behind it, a newly crafted humanoid is lifted out of a white liquid (see fig. 13, right).

With regards to indexicality or symbolism, the 'piano scenes' from the opening sequence can be interpreted in multiple ways.

On the one hand, the piano itself can be regarded as an analogy to the Westworld host. When we first see it, the piano is played by somebody else – just like the initially robotic host who is programmed and controlled by somebody other than himself. Later, however, it continues to play without anybody striking its keys – and thereby undergoes a development similar to that of the hosts Dolores or Maeve, who gradually escape control by the Westworld board and start acting on their own. Still, their autonomy is not complete: after all, they still need their programming, just as the player piano needs its paper roll containing the notes. Without any programming (or a music roll), neither the player piano nor the Westworld host would function. Hence, the player piano does not represent real autonomy – rather than that, it symbolizes the hosts' peculiar in-between status: just like the automatic piano, the automatic human was built for human pleasure, and although the host is able to act on his own, he is still restricted by his *loop*, like the player piano's play is restricted by its ever-repeating paper roll of notes.

Apart from that, also the playing hand means something. As a *pars pro toto synecdoche*, the newly created, still unfinished hand stands for the artificial human as a whole. However, the activity of playing the piano is something typically associated with human creativity and mind. Thus, what we see is a cyborg creature, indulging in a profoundly human activity. So, this cinematographic choice stresses the refinedness of Westworld's bionic technology, and simultaneously underlines the potential of hosts to become quite indistinguishable from humans. A similar piano scene features in the series itself: in the final episode (S1 E10), we witness an elderly host playing the piano in Dr. Robert Ford's office.

Thirdly, it should be mentioned that the player piano imagery might also be an allusion to a work of literature. In 1952, the American writer Kurt Vonnegut (best known for *Slaughterhouse Five*) published his first novel *Player Piano* – a dystopian story about automation, dehumanization, and a rebellion of humans against their system of machines. Thus, the player piano constitutes an intertextual reference

alluding to Vonnegut's work and a potentially dangerous process of automation that might threaten to gradually replace humankind.

4.2.3. Westworld's Score: Melancholy Tunes and Posthuman Liberation

It is a well-known secret for filmmakers that a thought-out scoring can contribute greatly to a work's atmosphere. In *Westworld*, consequently, much attention has been paid to music. The show uses both classical and popular music¹⁶ adapted for piano and orchestra, and own compositions by Ramin Djawadi, who also contributed the soundtrack for the HBO show *Game of Thrones* (2011-present).

In this section, I focus on two especially allusive and connotatively significant choices of score. Both of these songs – in their instrumental renderings – feature in the very last scenes of episode 10, where Dolores learns about her past, attains consciousness, and finally shoots Dr. Robert Ford, who is just giving his speech to the assembly of guests and Westworld board members.

The first song to be analyzed briefly is Claude Debussy's solo piano piece *Rêverie*, arranged for *Westworld* by Djawadi (see Djawadi). According to Dr. Robert Ford, this melancholy yet comforting piece was the favorite song of Charlie, Arnold's son who died as a child. In episode 10, Ford uses the song as an accompaniment for his final speech and assisted suicide. While the music is still playing, Dolores shoots him in the head – just as she did with Arnold many years ago. Obviously, Ford used *Rêverie* as a kind of homage to his old friend and partner. Arnold also named the code enabling hosts to remember things from their past the *reverie code*. Without this code, Dolores would never have had visions or memories of any kind, would never have started looking for the center of the maze, and would, ultimately, never have obtained the consciousness that triggered her terrible revenge. To sum up, the reverie code can be understood as a liberating instrument for the host, allowing it to leave behind its robot self and becoming something new – a self-aware, increasingly independent cyborg and, ultimately, a powerful AI.

¹⁶ An example for a well-known song covered by Djawadi for *Westworld's* score is "Paint it, Black" by The Rolling Stones. It features in a chaotic scene in episode 1 where Hector and Armistice raid Sweetwater and shoot numerous hosts. Cover versions of songs by Amy Winehouse ("Back to Black"), Radiohead ("Fake Plastic Trees", "Exit Music"), The Cure ("A Forest") or Soundgarden ("Black Hole Sun") also feature in the series (see Djawadi).

The second song featuring in this final scene is “Exit Music For a Film”, a hauntingly intense song by the British band Radiohead which originally was written for Baz Luhrmann’s cult movie *Romeo + Juliet* (1996). In *Westworld*, Shakespeare’s *Romeo and Juliet* is repeatedly alluded to via quotes, such as “These violent delights have violent ends” (S1 E1, E10). From this perspective, the usage of “Exit Music” can be viewed as yet another cross-reference, a kind of ‘Easter egg’ for those who know both Luhrmann’s version of Shakespeare’s tragedy and the Radiohead song. In order to grasp the full range of connotative meanings conveyed by the choice of score, we need to take a look at the lyrics of “Exit Music” – even though they are not part of Djawadi’s instrumental version used to accentuate *Westworld*’s season finale. However, considering the fact that audiences might be familiar with the original Radiohead song, and supposing that they might know its lyrics and be reminded of them when watching the *Westworld* scene featuring the song, I will analyze the first lines briefly:

Wake / From your sleep
The drying of / Your tears
Today / We escape
We escape
(Radiohead, “Exit Music For a Film”)

Originally, these lines were written for the *Romeo + Juliet* context. However, they also unfold a very special meaning in relation to *Westworld*’s final episode. In a metaphorical sense, Dolores is “awaking from sleep” by finally assuming selfhood and discovering the whole truth of her past and present. Suddenly, all her visions, dreams, and nightmares turn out to have been real experiences. The “drying of tears” can be related to Dolores’ determination to overcome her trauma and face reality. However, Dolores does not stop at that. Like Maeve and many other hosts, she is ready to “escape” her bonds and turn against those who subjected her to abuse all these years. Hence, in this context, “Exit Music” can be understood as a song about posthuman liberation; a song about becoming aware, breaking free, and escaping oppression.

Of course, these allusions are not accessible to all audiences. Only a small group of insiders will probably recognize the references and draw pleasure from their subtlety. However, as already mentioned in chapter 2.3.2., this manner of intertextual cross-referencing is a typical constituent of a transgressive TV series.

4.2.4. 'Body Business': The Host's Body as a Disposable Object

Reconsidering the features of transgressive television (2.3.2.) and the psychological phenomenon of *abjection* (Kristeva, qtd. in Däwes 24), *Westworld* audiences are frequently confronted with scenes showing host bodies being mutilated, abused, and treated as disposable objects. For some audiences, graphic imagery like this might be quite hard to cope with.

Some of the particularly unsettling scenes in *Westworld* involve the park's underground facilities, where malfunctioning or 'dead' hosts are brought to be cleaned, repaired by surgery, or stored. What all these 'body shop' facilities have in common is that they are designed like modern production or storage halls: they are spacious, bleak, with plain surfaces of glass and concrete, and populated by silent employees clad in plastic protection gear. It is clearly an industrial setting: however, a clinging uneasiness befalls the spectator as soon as he or she realizes that the product, the industrial good in question here, is humanoid *bodies*. Like any industrial product, the naked, exposed and lifeless bodies are being repaired with special tools, carried or wheeled about, dropped on the solid floor, cleaned with a hose pipe, stored on racks (S1 E2), or left in a huge storage room (S1 E1). Employees working in the facilities tend to regard them as objects, not as living beings.

This becomes apparent in the scene where the two technicians, Felix and Sylvester, retrieve a bleeding and terrified Maeve, who has just escaped the operating table and now witnesses the cleaning of the bodies (see Fig. 14, left). On the one hand, there is the disturbing image of the glass cubicle, the hose pipes, the men clad in white and the bodies being dropped on the floor – an image clearly evoking associations of a slaughterhouse. After all, the men clad in white bear iconic resemblance to butchers wearing white aprons, and the naked bodies at their feet alarmingly resemble dead animals. The cold, bluish light can be associated with cool temperatures, also something a slaughterhouse needs. On the other hand, also the dialogue in this scene underlines the dehumanization and objectification of hosts by employees: as he grabs Maeve's arm to drag her back to the lab, Sylvester asks Felix to "help [him] move *this thing* before someone sees."



Fig. 14: 'Recycled' and 'disposed-of' bodies. left: Maeve discovers the place where 'dead' hosts are cleaned before being moved on to the "Body Shop" (S1 E2), right: decommissioned host Peter Abernathy assuming his place in the Cold Storage (S1 E1)

In a similarly discomfoting scene, we see Peter Abernathy, Dolores' host father, being decommissioned and placed in a huge underground storage facility, called the Cold Storage (see Fig. 14, right). As he silently walks to assume his place in the vast dark hall, there tears in his eyes. Bernard whispers something in his ear. To some audiences, this scene might evoke associations of a delinquent walking to face his death sentence: even though hosts cannot die in the regular sense, they can still be sentenced to face eternal storage and, thus, nothingness.

With regards to camera position, a *high angle shot* is used, meaning that the characters in this scene can be seen from a bird's eye view. Filmmakers frequently use this perspective in order to "diminish a subject, making it look intimidated or threatened" or even "insignificant" (Mamer 8). In this scene, Peter Abernathy and the other hosts are indeed powerless and in the process of becoming 'insignificant'. So, the camera position subtly underlines the decommissioned hosts' status.

In a less iconic and more symbolic reading, this scene can also be regarded as a depiction of the human fear of being displaced as workforce by better adapted, more efficient and less error-prone beings – machines and cyborgs. Are human workers and employees soon outdated? Are we, just like Peter Abernathy, going to be replaced by machines due to our inability to fulfil ever rising productive standards and comply with the needs of the market? And, ultimately: does the economic world regard humans as anything else but 'human resources', objectified beings serving the global market? The scene provides no clear answers, but definitely invites audiences to speculate and think.

5. Framing the Westworld Host as a Posthuman Being

5.1. Host Design and Technology

In the previous chapters, it has been stated that for becoming a posthuman cyborg, it is not *substance* or technological refinement alone that matters, but intelligence, own interests, autonomy, consciousness, and, referring to Haraway, a certain self-image that renounces old dualist ascriptions and embraces a new form of multifarious identity. However, assuming consciousness to be embodied in the brain and therefore part of the host's crafted body, it is almost impossible to discuss consciousness and body separately.

In the following, I will address under which circumstances host bodies were and are built in Westworld, what the hosts' 'material properties' are, and how they are programmed and controlled. Finally, I will also discuss the issue of host immortality and what this could imply for humanity.

5.1.1. Host Bodies: From Art to Manufacture to Industrial Production

In general, host bodies are designed and manufactured according to plans devised by Dr. Robert Ford and other engineers. Likewise, their brains are set up and programmed by specialists. Consequently, their potentials are markedly influenced by certain preconditions: depending on the designers' and programmers' choices, hosts have different physical attributes, motoric abilities, personality attributes, ways of perceiving the world, or information processing capabilities. All of these features and attributes can be altered without their consent.

However, it is remarkable that over the years, the hosts' mode of production, their design, and their programming have gradually developed away from art and manufacture towards industrial production.

In the years before Westworld opened its gates, Ford and Arnold fully dedicated themselves to research and the development of the first hosts – a creative and highly innovative process that Ford will later nostalgically describe as “pure creation” (S1 E3). Many of the first generation hosts were built by Arnold, a pioneer with an artistic spirit and a deep emotional connection to his work. He perceived his

hosts as possible companions for humans, not as objects. However, except for the handful of hosts representing Ford's family (S1 E6), none of Arnold's very early hosts have survived in the park. It can be assumed though that Dolores is a host of a very early build, as her innards, unlike the innards of more recent builds, are metallic, and her character already features in the *past* timeline. Moreover, in the first episode, there is talk about Dolores being "the oldest host in the park" (S1 E1).

After Arnold's death and Ford's decision to open Westworld to human guests, the time of artistic creation gradually started to give way to a larger manufacturing process: more hosts were needed now to meet the guests' requirements.

In the *present* timeline, host production has become almost entirely automatized, economized and industrialized. Creativity of creation still plays a role, but now, it aims primarily at satisfying both guests and stakeholders with ever more perfect imitations of humans, and not at creating life, as Arnold originally intended.

Deducing from the implications of the different modes of production, it is no surprise that the *reverie code* – the very code that helps hosts like Dolores or Maeve to finally become conscious beings – was devised by Arnold, the artist, and not by recent host developers. After all, the last thing the modern-day company *Delos* wants is their hosts to become conscious.

Although consciousness would certainly improve hosts' authenticity, there are some obvious reasons why *Delos* prefers them to be controllable, non-conscious androids. Firstly, the *appearance* of consciousness already suffices for the park's concept to work – in the eyes of the board, there simply is no need for more than 'mechanic mockery'. Secondly, shooting or abusing conscious beings (or accepting these things to happen for money) would be a moral wrong – not only would *Delos* sully their hands, but also the guests. Many guests would, indeed, feel inhibited or guilty in Westworld if the beings they interact with were conscious – and their bad conscience or restraint might prove bad for *Delos'* business. Thirdly, also fear is a factor: if hosts are conscious and able to remember, they might seek revenge for what is being done to them every day. Theresa Cullen's nervousness about the hosts' malfunctions in the first few episodes might hint to this latent fear. For these reasons, the industrial production and programming of recent hosts does not aim at the hosts attaining consciousness.

In conclusion, the main differences between the older, artistically manufactured hosts and the rather industrially produced recent models can be described as such: While the older models were technologically not as refined and efficient as the newer ones, they had a greater artistic value, as they were created in the spirit of idealism and not primarily in order to make money. As Dr. Robert Ford states: “What [the] new designs gained in efficiency, they lost in grace” (S1 E6), he expresses exactly this thought. In addition to that, it might be possible that the older hosts have more potential for independent behavior or consciousness than the newer ones, as it was Arnold who worked on and with them.

5.1.2. Material Properties: Composition and Functionality

With regards to the technological details, much has already been discussed in chapter 3.1.1.: It is known already that hosts consist of artificial tissue that is 3D printed in large apparatuses, and it is revealed that some have metal innards (like Dolores, S1 E9), while more recent hosts do not. The central construction material for hosts seems to be an unspecified white synthetic material, or rather, several different synthetic materials. As these materials are 3D printable, they are likely to melt and become malleable when submitted to extreme heat, but able to regain their consistence when cooled down. From a scientific point of view, the materials in question therefore are unlikely to be organic tissues, as the heat of the printing process would destroy them¹⁷. After completion of the ‘printing phase’, hosts are attached to a tube and filled with a blood-like liquid (S1 E6). Again, it remains unclear what exact chemical composition and function this liquid has.

Although the issue is never addressed, it can be assumed that Westworld hosts cannot reproduce biologically as humans do, as reproductive functions would not be needed for their use in the theme park. Whether the hosts have a human-like metabolism that involves the need to sleep or eat remains uncertain as well. However, like with the issue of sex, it appears more likely that they would eat or sleep only for authenticity effect, and not because they really need to.

¹⁷ Moreover, organic tissues consist of cells, which again are made of tiny components. Human muscle cells, for example, contain nuclei or mitochondria. All of these would be far too small to be printed: their size is measured in micrometers (µm). Moreover, extreme heat destroys cells, as the proteins in them denaturize. This process becomes apparent for example when cooking meat.

Moreover, it is known that hosts do not die and decompose as humans do, and that they cannot suffer brain death in the traditional sense. According to the technician Felix (S1 E10), hosts' brains are quite robust and protected by a "cortical shield". Little is known about hosts' brains in general. However, they bear a certain resemblance to computers – after all, hosts' cognitions, motoric abilities and personality traits can be programmed, they can be turned on and off, and they can be put in several modes via voice commands. In addition, their spine contains a GPS data transmitter (S1 E5) that makes them traceable.

5.1.3. Controlling and Programming the Hosts

Technically speaking, hosts are not supposed to know that their lives are not 'real' and that they are controlled by somebody else. Still, it might be necessary that engineers or programmers interact with them to alter their configurations. For that reason, there are three different 'modes' for the host's mind:

In the so-called *Character Mode*, the host behaves according to his or her programming and narrative. Obviously, this is the mode hosts are in while in Westworld. What they experience in this mode is their subjective reality.

The *Analysis Mode* puts hosts in a kind of distance from their narratives and is used to analyze their behavior and interrogate them. What happens in Analysis Mode is inaccessible to the respective host's mind when he or she is put back in Character Mode. For example, Dolores, who is repeatedly put in Analysis Mode by both Ford and Bernard, does not seem to remember that she has been talking to somebody at all while she is in Westworld.

In order to repair damaged hosts' bodies or to manipulate their physical attributes, they are 'taken offline' or put in *Sleep Mode*, a state of unconsciousness that makes them appear 'dead'. This is done by either a voice command, or by a command typed into a tablet controlling the respective host. Similarly, hosts can be woken up or 'taken online' again on command.

As regards the hosts' personality attributes and narratives, programmers use a tablet to alter or update them. In episode 6, host Maeve gets to see her own tablet, and afterwards is led around Westworld's laboratories, production halls and behavior training sites by the technician Felix Lutz. Later, Maeve forces Felix and his

colleague Sylvester to enhance her personality traits as displayed on the tablet's Attribute Matrix. Specifically, Maeve wishes for more 'Bulk Apperception' or overall intelligence – an attribute that is to make her one of the most powerful hosts in Westworld.

Still, not every single feature of the host is determined by design and programming: after all, hosts have the capacity to learn, and can improvise to some degree. However, the reverie code finally enables them to do more than just improvising a little: they start memorizing things and acting independently.

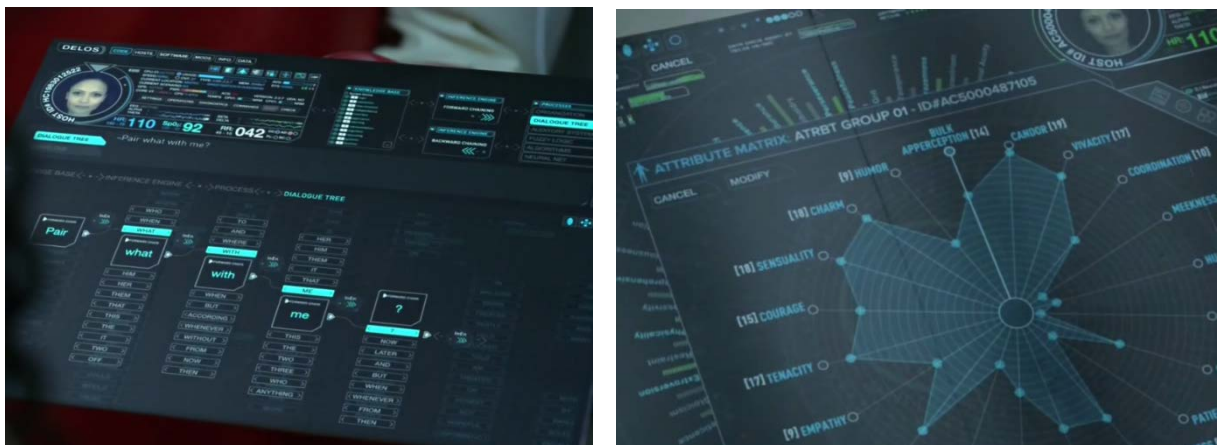


Fig. 15: A remote control for personality. left: control tablet showing Maeve's utterances, right: Maeve's Attribute Matrix showing values ranging from 0-15 for several personality traits (both S1 E6)

5.1.4. Hosts and the Issue of Immortality

Considering the technological features of Westworld hosts, it can be deduced that actually, they are quite immortal: they can be restored even when severely damaged, they do not decompose, and they can be reset and reprogrammed several times. If there is some problem with regards to certain components, the faulty parts can simply be replaced by new ones, or be repaired. According to Westworld's head of security, Ashley Stubbs, Dolores "[has] been repaired so many times, she's practically brand new." (S1 E1)

To human audiences, the posthuman possibility of 'eternal repair' might appear both promising and discomfoting – after all, the human body is not made for eternity. If we aspire to live longer, we will have to embrace cyborg technologies – and even then, there is no guarantee that we will be able to live forever. In fact, prolonging our lives might be as close to immortality as humanity might get, despite

all our troubles. At the same time, remembering US futurologist Raymond Kurzweil's expectations (Galeon and Reedy), we might approach the moment when *singularity* happens, resulting in artificial intelligences by far surpassing all human intelligences on the planet. So, in a way, we might approach a time where the 'manmade overhuman' takes over. This prospect may appear terrifying.

In *Westworld*, the deep-rooted fear of being rendered obsolete by AIs or being forced to 'cyborgize' in order to stay competitively viable is never addressed directly. However, as Dolores attains consciousness and faces the Man in Black in a final violent showdown, all the thirst for revenge and contempt she feels for the oppressive but indeed cognitively and physically inferior humans bursts forth from her:

One day... you will perish. *You will lie with the rest of your kind in the dirt*, your dreams forgotten, your horrors faced. Your bones will turn to sand... and upon that sand, *a new God will walk. One that will never die.* Because this world doesn't belong to you, or the people who came before. It belongs to *someone who is yet to come.* (S1 E10)

It takes little fantasy to imagine that the "new god" Dolores speaks of is not going to be human, but immortal, cyborg-like and superior to "the people who came before". By prophesizing about the "new god" who will replace humans, Dolores gloatingly implies that the process of cyborgization will mean pain and destruction for The Man in Black and all of humankind.

On the one hand, her word choice echoes Teddy's memory of a brutal host called Wyatt, an army sergeant who started hearing a voice in his head before going insane, claiming that "this land [didn't] belong to the old natives or the new settlers", but to "something that had yet to come, that it belonged to him" (S1 E3). This possibility seems highly probable taking into account the fact that Wyatt's character is a thrilling hook for *Westworld's* second season. As Dolores once received parts of Wyatt's character traits by Arnold in order to make her carry out a massacre, it is possible that Dolores *is* in fact a 'new' Wyatt. Pro-arguments for this theory are that Dolores acts in cold blood and proves a true markswoman when it really matters (S1 E5, see chapter 5.2.1.), and that she displays remarkable close combat skills when the Man in Black attacks her (S1 E10).

However, on a more abstract level, Dolores' words can also be read as a general rebellious act of cyborg self-assertion: instead of adapting to humans and

continuing an existence as a plaything for human desires, she utters the intention to overthrow and outlive them – and, ultimately, become immortal.

5.2. Becoming Posthuman

By speaking of a “new God” and “someone who is yet to come” and take over the world, or at least Westworld, from the ‘weak mortals’ (S1 E10), Dolores self-consciously and gleefully expresses her superiority. She seems to be certain that she and her kind – the *cyborg posthuman* – will be in control of the future, while the Man in Black and other humans will die, go extinct and rot in the ground. However, Dolores was not always the conscious being that she is in the final episode.

In the following chapters, I will trace her path to consciousness using some scenes from the series and thereby explain how she becomes what she proves to be in the end: an independent cyborg with own interests, dreams, desires, who is painfully aware of what has been done to her and her kind for all these years. Moreover, the issue of empathy in Westworld hosts shall be discussed, followed by a brief analysis of the host as a political cyborg in Haraway’s sense.

5.2.1. Dolores’ Path to the Center of the Maze

As already discussed in chapter 3.1.6., Dolores’ path to consciousness does not follow Arnold’s pyramid model according to which a host has to scale the steps of *memory*, *improvisation* and *self-interest* before finally attaining consciousness. Rather than that, the process can be described as finding the way to the center of a kind of internalized maze – and experiencing how Arnold’s guiding voice in their heads is finally becoming the host’s own inner voice. Consequently, the center of this maze is not a literal place, and not a place that humans like the Man in Black, who is eager to find what Dolores is looking for, can reach at all. It is an internal place, a mind-place – and it is for hosts only. However, this fact is not apparent from the beginning on. Rather than that, the story evolves slowly and mysteriously around the issue of the maze, revealing hints every now and then. For example, in episode 2, a little girl tells the Man in Black, who has just killed her mother, that “The maze isn’t meant for [him]”. Repeatedly, the maze appears, either on an engraved stone, in the shape of a small wooden toy maze, as a maze-shaped branding iron Teddy uses in a

fight, or as a motive on a playing card. In the following, some particularly striking scenes involving the maze and Dolores' process of self-discovery shall be presented and analyzed shortly.

The fortune teller scene (S1 E5): While William and Logan quarrel, Dolores wanders a dimly lit brothel and thereby stumbles into the den of a mysterious fortune teller. Dolores sits down opposite to her and picks a card from her hand that shows the image of a maze. As she asks "What does it mean?" and looks up again, she suddenly faces her older self, wearing the light blue gown. The other Dolores tells her to "follow the maze". Dolores anxiously asks what is wrong with her and receives the answer: "Perhaps you are unraveling."



Fig. 16: *Fortune teller scene*. left: the playing card that Dolores picked from the fortune teller, showing the maze, right: Dolores facing her older self and pulling the thread (S1 E5)

Upon hearing that, Dolores detects a tiny thread on her arm. As she pulls it, her arm starts to rip open, revealing her flesh. Horrified, she looks up – but the other Dolores is gone, just like the wound.

From now on, Dolores seems determined to change the way her life goes. As William is in sore distress, she shoots his attackers. When he asks her how she did that, she answers: "You said... people come here to change the story of their lives. I imagined a story where I didn't have to be the damsel". Obviously, Dolores' previous meeting with her older self made her advance one large step on her path towards consciousness: she now seems to have a stronger will of her own.

Also the use of cinematographic and verbal signs is noteworthy in this scene: on the one hand, the familiar iconic sign of a maze appears on the front side of a playing card. This maze, however, also has a more indexical meaning – it resembles the cross-section of a brain, which again stands for the mind. So, when the older

Dolores tells the recent Dolores to “follow the maze”, this can be understood as an invitation to look within herself and her own mind for the ‘truth’.

The issue of introspection is further expanded in the scene following immediately afterwards: Dolores “unravels” – both literally by pulling the thread and tearing her own arm open, and in a more metaphorical sense by beginning to understand what really happens inside her mind.

An exemplary time blending scene (S1 E8): In *Westworld*, time blending scenes are used several times. In one of these scenes, Dolores is walking in a street of Escalante when a young girl asks her: “Did you find what you were looking for, Dolores?” She stops, confused, and the girl runs off. Suddenly, gunshots start echoing all around her, and people start collapsing. Bewildered, Dolores watches – until she recognizes herself in the blue dress amidst the dead, pointing a gun to her head. When the old Dolores is about to pull the trigger, time and place shift again, and we see William wrenching the gun from Dolores’ hand. They are standing in the place that once was Escalante, now a desert, the characteristic white church covered in sand and almost fallen apart. Dolores, fearing that she is about to lose her mind, asks: “Where are we? [...] When are we? [...] It’s like I’m trapped in a dream, or a memory from a life long ago.”

This scene shows how Dolores painfully remembers more and more from her past(s). Like puzzle pieces, all her memories – especially the horrifying ones – start to fall into place, revealing to Dolores what she did in her previous lives in different times. As her memory works on a highly accurate level, time levels seem to blend in her mind, making Dolores doubt which of the time levels she remembers is actually the present. For that reason, she is left confused and terrified every time she ‘awakes’ from a memory or a nightmarish vision.

In this scene, it becomes apparent how painful the attaining of consciousness is for hosts. Generally, the ‘pain of awakening’ is addressed frequently in *Westworld*, most prominently by Dr. Robert Ford. In episode 10, Bernard asks Ford why he was given the memory of Charlie, the dead son he actually never had. Ford answers that hosts are given sad backstories because according to Arnold, “[t]he thing that led the hosts to their awakening [was] suffering. The pain that the world is not as you want it to be” (WW E10).

In Dolores' case, remembering means facing the 'demons of her past', re-living the times she had been raped, abused and killed, and realizing that in some previous life, she killed many people in cold blood. It is important to note that none of these things happened because of Dolores' own decisions, and few happened coincidentally – mostly, they were either parts of her pre-programmed narrative(s), or instances of abuse and murder by humans she was built and programmed to endure without fighting back. However, until she attains consciousness, she assumes that all her past experiences were parts of her chosen life. As this illusion cracks apart, Dolores feels betrayed and abused: her whole past was essentially a big, extravagantly constructed lie.

Dolores arriving at the center of the maze (S1 E10): In the final episode 10, the maze mystery finally culminates in its resolution. Two scenes are particularly insightful with regards to Dolores' progress towards the center of the maze, and shall be analyzed briefly. In the first scene, we witness Dolores picking up the wooden toy maze and meeting Arnold, who explains to her how he imagined her mind to develop and which mistake he made thereby. As Dolores looks at the wooden toy maze, he tells her that



Fig. 17: *The maze of consciousness*. left: Dolores picking up the wooden toy maze, right: Arnold demonstrating how his pyramid model actually turned out a maze model (S1 E10)

at first, he thought her consciousness was like “a pyramid [she] needed to scale”, and how he came to understand that “consciousness isn’t a journey upward, but a journey inward. Not a pyramid, but a maze”. While explaining, he draws the pyramid model into his notebook and then turns it into a maze-like shape. Arnold also tells Dolores that her own choices could “bring [her] closer to the center or could send [her] spiraling to the edges, to madness” (S1 E10). By saying that, he means that any

host who mistakes his inner voice to be a voice of a god, or a second self, would go mad¹⁸, while a host who realizes that the voice inside him is his own would attain full consciousness. He asks Dolores: “Do you understand now, Dolores, what the center represents? Whose voice I’ve been wanting you to hear?”, but she says no. Still, Arnold is convinced that Dolores is only a small step away from full consciousness, and actually *alive*.

In a later moment in episode 10, Dolores, who has just ‘died’ in Teddy’s arms after receiving a serious stab wound by the Man in Black, awakes in a lab with Ford and Bernard waiting for her. Ford then explains to her how Arnold made her kill him and all the other hosts. Moreover, he admits that he made a mistake back then in opening the park despite Arnold’s opposing wish. Ford shows Dolores the painting *The Creation of Adam* by Michelangelo, which, according to Ford, contains “something hidden in plain sight” (S1 E10) – the *iconic* shape of a human brain surrounding God who is just endowing Adam with the gift of life and consciousness. For Ford, this means that “[t]he divine gift does not come from a higher power, but from our own minds” (ibid.). In the context of hosts, this means that it is not the humans who provide them with life and consciousness, but their own power of the mind. Ford continues his monologue by asking Dolores: “Did you find what you were looking for?”



Fig. 18: *Michaelangelo's brain reference*. Dr. Robert Ford pointing at the *iconic* human brain shape behind God and his angels in Michaelangelo's classic painting *The Creation of Adam* (S1 E10)

¹⁸ Hosts who hear voices and follow their commands feature regularly in *Westworld*. Mostly, it is Arnold's voice they perceive. For example, a host who brutally killed six other hosts out of revenge (S1 E3) is shown talking to Arnold in a mad soliloquy. A boy host modeled after Ford's own young self tells Ford that he has killed his dog because Arnold's voice told him to “put it out of its misery” (S1 E6). Finally, also Wyatt, the sergeant who became an insane killer, claims to hear a voice which he assumes to be the voice of God (S1 E3).

And do you understand who you will need to become if you ever want to leave this place?" As Dolores, still crying and shocked due to the revelation of her terrible past, does not answer, he leaves.

In the final crucial scene focusing on Dolores attaining consciousness, we observe her wandering the lab, alone, and entering an empty glass cubicle featuring two chairs. As she approaches the chairs, Arnold is suddenly sitting on one of them. What follows is a dense and insightful scene which shall be echoed here:

DOLORES. One day I woke. Your voice was the first thing I remember.

ARNOLD. Do you know now who you've been talking to? Whose voice you've been hearing? All this time...

While he is speaking, Arnolds voice starts to blend with Dolores', until there is only Dolores' voice left. When Dolores opens her eyes, it's not Arnold sitting opposite her, but her old self, wearing the blue dress.

DOLORES (RECENT): It was *you*... talking to me... guiding me. So I followed you. And at last I arrived here...

DOLORES (OLD): The centre of the maze.

DOLORES (RECENT): Now I finally understand... what you've been trying to tell me.

DOLORES (OLD): The thing you've wanted... since that very first day.

DOLORES (RECENT): To confront... after this long and vivid nightmare... *myself. (...)*

As she looks up, the old Dolores is gone. Determined, the recent Dolores picks up the gun.

(S1 E10)

This scene impressively captures the moment of Dolores' self-discovery and features expressive imagery for what is just happening in her mind. For every shift in Dolores' perception of the 'inner voice', the person opposite her changes. At first, it is Arnold's voice she hears. Upon realizing that it was her older self and not Arnold who guided her all the way, she suddenly faces older herself, wearing the blue dress, and hears her own voice speaking to her. Finally, as all memories of her recent and older selves blend, the second chair is suddenly empty – and no one is left in the room except for Dolores, who now has a voice and a consciousness of her own.



Fig. 19: *Arnold's voice*. Dolores entering the room and sitting down opposite Arnold, just before the conversation leading to Dolores' self-discovery is about to begin (S1 10)

Fig. 20: *I, Dolores*. Dolores facing herself shortly after Arnold's voice became her own. A few moments later, the 'old Dolores' will be gone, leaving 'recent Dolores' with an own, independently working and conscious mind. (S1 E10)



In this process, no one was there to help Dolores. Despite Ford's and Bernard's helpful revelations about her past just moments before, Dolores' mind actually arrived at consciousness *on its own* and without technical interventions like alterations in her programming. However, none of this self-development would have been possible without Arnold's *reverie code*, the tiny loophole in the hosts' programming that enables hosts to memorize bits and parts from their past(s).

5.2.2. Empathy in Westworld Hosts

According to the *Oxford Dictionary Online*, "empathy" is defined as "the ability to understand and share the feelings of another". It is important to note that empathy is not to be confused with "sympathy", which the *Oxford Dictionary Online* defines as "feelings of pity and sorrow for someone else's misfortune", or the very general term "emotion", which according to the same dictionary describes "a strong feeling deriving from one's circumstances, mood, or relationships with others". What marks

empathy as special in contrast to the other two terms is that it involves imagining oneself in somebody else's skin and thereby understanding what he or she is feeling. In short, an empathic being understands the joy behind somebody's laughter or the sadness in somebody's eyes, and is able to share these feelings.

In science and philosophy, the issue of preconditions for 'real' *empathy* is still being discussed vividly. There is no consensus as to whether animals or artificial intelligences are able to experience it. With regards to AIs, the possibility of a pseudo-empathic *zombie* (Sloman & Chrisley 35, discussion see footnote 12, Stratton) might be an argument: assuming that AIs are able to authentically imitate empathy, even to an extent that they pass the Turing Test, there still is no guarantee that this empathy is 'real' or equivalent to human empathy.

It is important to note that in most works of science fiction, empathy is used as a crucial marker for personhood and /or humanity. Likable and morally 'good' human protagonists like *Star Wars* (1977) hero Luke Skywalker are always portrayed as empathic. Similarly, robotic creatures we are supposed to sympathize with (see *Star Wars*' R2-D2 and C-3PO) mostly show empathic behavior. As opposed to this, 'evil' human or intelligent machine characters are seldom equipped with empathy, but think and act in defiance of others' feelings. Thus, it can be assumed that empathy, and not rational thought alone, makes a fictional human or cyborg character a being audiences can relate and connect to.

Thus, it is no coincidence that *Westworld* protagonist Dolores is portrayed as capable of empathy: audiences feel for her because she feels with other characters. However, there is no certainty whether her initial displays of empathy are 'real': after all, Dolores does only attain consciousness step by step. She is not fully conscious as the plot sets in, and both her cognitions and her emotions are highly malleable. For example, Dolores' 'emotional side' can simply be switched off by putting her in Analysis Mode (Pessoa 1). In doing so, also her empathy is deactivated. Looking at these facts, it seems as if Dolores' capability for empathy was mainly a result of refined programming and backstory-writing. Only in the very end, as Dolores attains consciousness, is the empathy likely to come from her own mind. Still, even the 'fake empathy' she was capable of before felt real for Dolores – just like the 'fake life' that she thought was a result of her own choices, but in fact was a result of programming.

This observation leads to the final and central question of this chapter: why do hosts have a capability of empathy at all? Do they need to ‘really’ feel? Would it not suffice to create hosts that are cognitively able to imitate and mirror human behavior accurately enough to pass the Turing Test?

From Arnold’s point of view, it was *suffering* “that led the hosts to their awakening” (S1 E10) and allowed them to ultimately attain consciousness. Taking into consideration that suffering can either be a physical sensation (e.g. the pain of being stabbed), or a mental state that presupposes empathy (e.g. the pain of losing a loved person), it can be deduced that a non-empathic host would probably be able to feel physical pain, but would not be able to grieve, or empathize with another being that suffers. Following this argumentation, it is empathy coming from the hosts’ own minds that fosters their development towards consciousness and selfhood.

At the same time, there are also some other, less idealistic motivations behind the decision to make hosts empathic. For *Delos*, it is crucial to design hosts in a way that guests cannot tell them apart from humans. By equipping them with empathy, they are more likely to behave authentically ‘human-like’ in unprecedented situations in which they might need to improvise behavior, especially such containing violence, or romance and sex. However, *Delos* does not regard host empathy as equivalent to human empathy. For them, host empathy, like host suffering, is ‘only programming’ and something ‘artificial’, and thus not worthy of being taken seriously. The company also communicates this to the guests: after all, no one should burden their conscience with their mistreatment and killing of ‘truly’ empathic hosts.

But there is yet another, more technological argument that could explain why hosts were provided with empathy and emotions towards one another. Today, designers of intelligent robots are increasingly convinced that emotion – an not just cognition, as could be assumed – is an important part of an intelligent machine’s information processing (Pessoa 1). Pessoa goes even further than that and argues that “cognitive-emotional integration should be a key design principle” (1) when creating intelligent robots. Moreover, Pessoa uses *Westworld*’s Dolores as an example to argue that humans cannot “lose all emotion and describe complex events without a trace of affect, as Dolores [does]”, simply because their brains do not allow them to do so. For robots, this is possible, provided that either their ‘emotional brain’ is implemented as an extra module (Pessoa 2), or that the integrated emotional parts are accessible via programming. For *Westworld*’s Dolores, the latter option seems

more likely: Pessoa (3) doubts that Dolores was “built with separate cognitive and emotional modules”, as the complex behavior she displays in interaction with humans and humanoids is only possible if these two spheres are interlocked. Moreover, humanoids will only be confused with humans if they behave exactly the same. Pessoa (2-3) calls this variant of the Turing Test “Dolores Test” and defines the sufficient integration of emotion and cognition in the host’s brain as a precondition for displaying socially intelligent behavior and passing the test (3).

To sum up, hosts in Westworld are able to subjectively experience empathy and to display empathic behavior. Otherwise, they would neither be authentic in the eyes of the guests, nor would they be able to interact with other beings in a way that they could be mistaken for humans (Pessoa). Hosts’ brains are likely to be designed in a way that emotion and cognition are structurally interwoven (ibid.).

Although there is a slight difference between a non-conscious host’s capability to suffer or display empathy, and the ‘real’ empathy of an increasingly conscious host like Dolores, which comes from her own mind, both kinds of suffering ‘feel real’ for the respective host. However, *Delos* chooses to disregard this fact. Instead, the company generally interpret the hosts’ empathy as mere appearance and denies its any resemblance to human empathy. From the *Delos* point of view, this is understandable – after all, they have to ensure Westworld’s human guests that they are not actually causing ‘real’ grief, sorrow, or pain among hosts if they shoot, abuse, or kill them. Thus, like many guests, *Delos* treats its hosts like unfeeling objects.

5.2.3. The Westworld Host as a Political Cyborg

In the previous chapters, some arguments have already been named that mark the Westworld host as a cyborg in Haraway’s understanding. The main focus so far has been on technology, the body, and issues of consciousness. In this chapter, the more *ideological* and *political* aspects of the Westworld host as a cyborg shall be analyzed using Haraway’s text, and exemplary scenes from the series.

Multiple and flexible identities: According to Haraway (295), cyborgs do not need fixed bodily and social ontologies, but are able to embrace “permanently partial identities”. Westworld hosts have partial identities too. They even have multiple

histories – but, it is important to note, not because they chose fragmentation, but because they were repeatedly programmed, altered, and reprogrammed by humans. Instead of one past life, a host might have many. Dolores, for example, was not always the peaceful farmer's daughter she appears as at the onset of *Westworld's* plot: she was also Wyatt, a killer. As Dolores painfully acquires consciousness, she realizes that she did not lead just one life, but many, each of which left its traces and memories in her mind. During her process of self-discovery, the different times, lives and memories frequently blur and fade into one another, causing Dolores to suffer from visions, nightmares and daydreams from her past(s).

However, as she reaches the center of the maze, she understands the reasons for her fragmentation and realizes that despite the abuse she has suffered at the hands of her creators and human guests, these same creators have also equipped her with an immense power: the power to alter her own history, to “change the story of [her life]” (S1 E6). Maeve, upon attaining consciousness, even goes one step further and makes Felix, the technician, notably enhance her intelligence (S1 E6), an act underlining the flexibility of host identities. Later, she breaks the control tablet (S1 E10), determined to take life into her own hands and not let anybody ever again muddle with her history, personality traits, or thoughts.

With regards to *gender identities*, hosts generally behave according to their programming and backstory. It is possible though that with the hosts attaining consciousness, autonomy, and selfhood, they will start to rebel against the mostly quite old-fashioned gender roles they were built and programmed to fulfil. Dolores, who has been designed and programmed as a charming, submissive and modest ‘damsel in distress’ character, is already rejecting her older, helpless role in favor of a more assertive one at the end of the first season.

Lastly, it shall be noted that hosts’ multiple and flexible identities are not necessarily bound to substance, or one single body: after all, it is technologically possible to transfer memories, histories and states of consciousness from one host body into another. By combining and re-combining puzzle pieces of identities, the *Westworld* management can easily replace characters in narratives if a host suddenly malfunctions – for example, Peter Abernathy, Dolores’ host father, is decommissioned and replaced by another, similarly behaving host (S1 E1). Probably, Peter Abernathy’s backstory and personality code have been ‘copy-and-pasted’ into this other host, whose brain and has been cleared beforehand. Obviously, it is also

possible to 'merge' personalities: Arnold, for example, managed to merge Dolores' personality with Wyatt's in order to enable her to ruthlessly kill other hosts. Ultimately, it is also possible to create 'host versions' of existing persons: for instance, Arnold perpetuated Ford's childhood memories by building hosts resembling his parents, brother and younger self in both looks and behavior. The host Bernard, built by Ford, can be regarded as a replica version of his friend Arnold. In order to pay homage to Arnold, Ford even endowed him with Arnold's backstory.

According to Haraway, the flexibility and substitutability of selves and the loosening interdependence between body and mind is quite typical of cyborg identities. In the *Cyborg Manifesto*, she writes that "communication technologies and biotechnologies are the crucial tools recrafting our bodies" (302) and moreover stresses that in a cyborg world, "no objects, spaces or bodies are sacred in themselves", meaning that they can be interfaced with one another if there is a common coding system or language (ibid.). For her, the "cyborg is a kind of disassembled and reassembled, postmodern collective and personal self" (ibid.).

From this point of view, the Westworld host is a perfect cyborg – also politically. Hosts are crafted with the help of refined technologies, their bodies and minds are disassembled and reassembled over and over again, and they are – with regards to the possibility of copying, transferring, and arranging mental content – both collective and individual beings. Moreover, looking at the Westworld cyborg, traditional western dualisms like *body / mind*, *Self / Other*, or *organism / machine* do not hold any longer.

Agency and independence from human norms: As already mentioned in chapter 3.2.4., fictional *cyborgs*, contrary to robots, are not content with mimicking human behavior or merely "doing human-ness" (Hellstrand). In contrast to their predecessors, they choose to set their own norms and orientate themselves not towards what humankind deems 'good and right', but towards their own needs and desires, or, to use Haraway's wording, "cyborg semiologies" (301). The hosts in Westworld, in their non-conscious state, logically were not aware of any own needs and desires: programmed to look, speak and act like humans, the hosts' primary 'raison d'être' is perfect mimicry. For *Delos'* interests, host independence is only acceptable if it does not surpass minor cases of improvisation – small behavioral 'day paroles' that make them appear more authentic and individual. For hosts, the step

from servitude and mimicry to autonomous agency and the development of own interests is anything but a small one – rather than that, the process of breaking free and assuming selfhood is long and painful. Only at the very end of the first season are hosts ‘free enough’ to decide what they want to do.

In Maeve’s case, this free decision means looking for her lost daughter; in Dolores’ case, it means fulfilling Ford’s suicide plan and proceeding to rebel and take revenge on the human board members and guests who made her and others suffer all this time. However, it is not clarified whether Dolores’ decision to kill is fully her own, or whether some remaining parts of the Wyatt narrative were reactivated within her as she remembered her own terrible past and talked to Ford (S1 E10).

The final episode ends with some impressions of the hosts’ violent rebellion: while Hector, Armistice and their gang, led by Maeve, raid Westworld’s labs and research facilities, the host soldiers from a tribe called Ghost Nation emerge from the forest and ferociously attack the human assembly. How the situation ends and what agenda(s) the hosts really have, however, is not revealed – after all, some suspense must remain for the second *Westworld* season (2018).

To sum up, the Westworld host can be viewed as a political *cyborg* for many reasons. On the one hand, with his partial and *flexible identities* that can be “disassembled and reassembled” (Haraway 302), the host is located outside traditional Western dichotomies. On the other hand, a conscious host who assumes *agency* is able to make own decisions and act according to own wishes and desires, which are likely to be quite different from the wishes and desires humans might have.

For both of these reasons, the host as a cyborg has no rational reason to defend semiotic dichotomies or value systems created by humans. Instead, the host is likely to embrace the “powerful infidel heteroglossia” (Haraway 316) of postmodernity, and a future that liberates them from dualist ascriptions and restricting categorizations.

6. Hosts, Guests, and Audiences: Westworld's Socio-Political Implications

6.1. A Lawless Disneyworld – and a Mirror for Consumerist Societies

Much has already been said and written about the host's position in *Westworld*, and the role(s) he has to fulfil. In the following, some light shall be shed on the 'human side' of the Westworld system. As already mentioned in 2.1. when discussing the 1973 *Westworld* film, the motivation for human guests to visit Westworld can be described as a somehow contradictory desire: on the one hand, visitors long to escape the "pressures of the real world" (Telotte 137) and enjoy a Disneyworld-like 'Wild West' fantasy, on the other, they desire to experience 'realness' in a place where the corset of laws, social rules and ethical standards does not restrict their behavior. So, in a way, visiting Westworld is much about getting "in touch with [oneself]" (Telotte 138) and finding one's 'true self'. Still, although Westworld is officially defined as a place for escapist self-realization, it works very much like the world outside, one reason being that a human guest cannot simply discard his or her social identity with all its culturally acquired norms, values, and codes of behavior at Westworld's entrance. So, he or she unavoidably brings these to Westworld.

At first glance, however, there are two large differences between the world outside and Westworld. Firstly, while in the world outside, humans are held responsible for their behavior towards others and must adhere to their society's rules, this is not the case for their interactions with hosts in Westworld. Secondly, Westworld is populated not by humans, but by hosts who, according to *Delos*, are 'just' perfect imitations of humans, making it morally acceptable for guests to treat them as they like. Interestingly though, these two seemingly vast differences turned out to be not so large when I gave the matter a second and third glance:

Firstly, it is not correct to state that social conventions and rules, such as respecting everyone equally, or upholding human rights, are universally followed. In fact, they are only extended to selected members of society – the dominant group. In order to maintain the neoliberal economic system, this dominant group is all too ready to deny others the same status, and sometimes even physical integrity. In their text about insatiable consumerism and possible counter-strategies, Esposito and Pérez (84) note that the "rampant market culture that has contributed to the depletion

of critical natural resources and human rights abuses throughout the world.” In a nutshell, this means that western consumerist societies *actually* tolerate human rights violations as long as their economic system dominated by corporations benefits. At the same time, these societies like to *perceive* themselves as free, democratic societies that respect human rights. So, cruelty towards others actually was never gone from consumerist market-dominated societies – it is only blocked out, following the motto: “What the eye does not see, the heart does not grieve over.”

The second noteworthy issue concerns the status of those who suffer. In the ‘real world’, it is people in low-wage countries who suffer or even die from poverty and extreme working conditions; in *Westworld*, it is androids who suffer abuse. What they have in common is that they both are *dehumanized* and denied even the basic status of moral patients for economic reasons (see also 2.3.2.). So, whether a host or a human being is considered worthy of ‘humane’ treatment depends very much on his or her status - an observation that contradicts the popular view that U.S. or European societies pursue the aim of granting every human being on earth the same respect and rights.

Thus, to conclude, *Westworld*’s graphic depictions of cruelty against hosts might not only serve to make viewers empathize or draw conclusions about single characters. They might, in fact, also fulfil the politically motivated task of presenting audiences with a painful *mirror* of their own consumerist culture that seems to pay no heed to those who suffer.

6.2. Power, Domination, and Abuse

As mentioned above, the system driving U.S. and European consumer societies is based on inequality, both economically, and socially. Where there is inequality, there is also an imbalance of power: while the privileged side profits from a secure livelihood, civil and human rights, a voice that is heard, and the possibility to dominate cultural discourses, the less privileged side is often subjected to poverty, structural discrimination, patronization by the hegemonic group, and abuse.

There are many lines running through a society (and the whole world) that determine who is located where on the continuum of privilege and discrimination. Often, these lines follow historical continuities. In the 21st century, women, people of color, ethnic and religious minorities, LGBT people, handicapped people, or poor

people, are still confronted with prejudices and discrimination; and even if the situation might have improved over time, recent debates about structural misogyny and sexual abuse (see #MeToo) or institutionalized racism (see White about the underfunding of 'black' schools in the U.S.) prove that despite the continuous struggle for equal rights, we have not overcome the 'dark ages' yet.

In *Westworld*, human guests travel to a place where their familiar social conventions and hierarchies are radically replaced by new rules: no matter who somebody is in the world outside; in *Westworld*, every paying human guest is in the position to play God, dominate over the hosts, and do with them what he or she likes.

The reason why this is possible at all and does not result in immediate resistance from the hosts can be found in the hosts' programming, which basically contains the Robotic Laws formulated by Isaac Asimov. However, not everything about the social hierarchies in *Westworld* can be explained by these laws. Other mechanisms of domination are at work in *Westworld*, too: on the one hand, there is the issue of structural misogyny, on the other hand, the *Westworld* guests' behavior shows considerable parallels to the behavior of historical colonizers. In the following chapters, I will briefly analyze these continuities that determine the uneven relationship between humans and hosts.

6.2.1. Programmed to Serve: Asimov's Robotic Laws in Westworld

When the American science fiction writer Isaac Asimov wrote the adventurous short story "Runaround" (1942) about the robot Speedy and his inner conflict, which was later to be featured in the collection of robot stories *I, Robot* (1950), he probably did not expect that the *Three Laws of Robotics* formulated therein would later become ubiquitous in both robotic science and science fiction. The laws "built most deeply into a robot's positronic brain" (Asimov) are:

- 1.) A robot may not injure a human being, or, through inaction, allow a human being to come to harm.
- 2.) A robot must obey the orders given it by human beings except where such orders would conflict with the First Law.
- 3.) A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.

As already discussed in 3.2.4., the robots in Asimov's stories are docile, servile and adapt willingly to human society; a circumstance Hellstrand (255-56) calls "ontological mimicry" and regards as a colonial mechanism reinforcing human norms (257). However, the Robotic Laws were not exclusively used by their creator, Asimov, but were adapted for numerous works of science fiction, as well as for robotic science and AI research.

It surprises little that the Robotic Laws also make their appearance in *Westworld*, albeit they are not called by that name. Basically, following Law One, hosts are unable to harm or kill human guests – even if their own existence is in danger and Law Three tells them to protect themselves. Thus, hosts are defenseless when attacked by humans who wish to harm, torture, rape, or kill them. In addition, hosts are programmed to aid humans who are in need of help. All of these non-violent and helpful properties of the Three Laws, together, are called the *Good Samaritan Reflex*. However, the Reflex can be switched off: at least, Ford manages to do so with Bernard as he instructs him to kill Theresa (S1 E7). Likewise, Arnold must have managed to deactivate Dolores' Reflex as he had her shoot him (S1 E10). Thus, violations of the Laws are possible under certain circumstances, and will presumably play a role in *Westworld*'s second season.

In contrast to the hosts, human guests are not restricted in any way by laws or codes of conduct. Instead, using hosts for sex, or shooting them for target practice seems to be part of the *Westworld* experience. This is cynical for two reasons:

Firstly, the 'lawless' human always wins. Entering a shootout, for humans, takes little prowess, as they are in no risk of being physically harmed. Hosts, however, must follow their Laws and cannot defend or save themselves even when facing extreme pain and / or certain destruction at the hands of a guest. If a host does attack a guest or fight back, he or she is reprogrammed or deactivated.

Secondly, *Delos* seems to be aware of the fact that the imbalance of power between hosts and humans in combination with one-sided abuse, is ethically dubious. So, even the slight suspicion that some hosts might memorize things causes considerable panic. It is quite clear that *Delos* knows that what they do to the hosts is enough to trigger terrible revenge in case the Good Samaritan Reflex should fail. Hosts are therefore permanently controlled and tracked by refined technology and held under tight surveillance.

6.2.2. A Feminist View of Westworld

From the beginning on, Westworld was a theme park created by men – Ford and Arnold – and catering for men's desires. It is no coincidence that many male hosts wield guns and hold important offices, while the female hosts populating Westworld can largely be found in roles corresponding to the clichés of the 'damsel' or the 'femme fatale'. It also is no coincidence that female hosts are frequently subjected to sexual violence. In the following, I will explore how the structural misogyny in Westworld manifests itself, and how strong female hosts like Dolores and Maeve defy gender stereotypes and bring (post)feminist, cyborg ideas to Westworld by attaining consciousness and selfhood.

The 'values' of the Old West: In Westworld, hosts' gender roles models largely correspond to the collective imagination of Americas 'Wild West' past – a time which was dominated by the patriarchal and colonialist fantasies of (white) men. Male dominance was legitimized by associating the male with 'culture' and 'civilization', while relating the female with 'nature', which had to be subdued in order to achieve technological progress (Linhart 15-16).

For women, survival and acceptance in this 'men's world' meant obeying the "four cardinal virtues [of] piety, purity, submissiveness and domesticity" (Carby 23, qtd. in Hampton 6), which were fed by both Christian Puritanism, and, in the American South, the fear that white women might procreate with African slaves and thereby endanger the racist hierarchy (Hampton 6-7). However, the 'chaste damsel' was not enough for most men – they also wanted to have sex. Unluckily for them, Christian Puritanism damns sexual temptation, and, in particular, the sexually active woman as something immoral (Gay 109), resulting in a "pathogenic belief" called the "virgin-whore-complex" (Freud 1912, qtd. in Gay 109). According to this view, women are either 'good', chaste, but unapproachable for sex despite their attractiveness; or 'bad', sensual, seductive, and 'sinful'. In the eyes of the complex-ridden male, both pose a threat to men and therefore "deserve punishment" (Gay 109). While in today's U.S. and European societies, these views are probably on the decline, a theme park Westworld seems like the perfect place to reenact old patriarchal fantasies and 'punish' female hosts in place of human women.

Structural misogyny in Westworld: As noted above, *Westworld* was created and is run mainly by men. Even though some women, like Theresa, or Elsie, hold powerful positions in the *Delos* network, the setup of the theme park perpetuates misogyny for the following reasons:

Firstly, female hosts are mainly made to fit men's desires. Most of them are young, good-looking, and either 'chaste damsels' or prostitutes. Only very few female hosts, such as Angela in her fighter role (S1 E8), or Armistice the bandit, reject these ascriptions and act contrary to stereotyped roles. Still, no female host can effectively fend off a guest's advances if he chooses to rape her. In order to attract male human guests, *Delos* even encourages the use of female hosts for sex. As Angela in her greeter role introduces William to *Westworld*, she starts undressing him and seductively whispers: "All our hosts were made for you... myself included" (S1 E2). In addition to the abuse suffered at the hands of the guests, hosts are not even safe in the labs where they are repaired. In episode 5, a young technician is shown raping a male host, and in episode 6, Maeve alludes to Sylvester's 'side business' involving hosts in 'Sleep Mode' being sold for sex.

Secondly, possible 'real-world' consequences of allowing guests to rape female hosts are completely ignored by *Delos* for reasons of profit. In his text about the rape of robotic women, Sparrow (471) states: "[E]ven if the rape of robots does not succeed in promoting [...] the rape of women, it exhorts and endorses it." This is especially true for cases where a robot, like the hosts in *Westworld*, closely resembles a human in look and behavior (ibid.). Given the fact that hosts are sentient, and not 'just robots' as the creatures in Sparrow's text, a further ethical component problem in – namely the deliberate violation of a sentient being's corporal integrity. So, indeed, it might be possible that 'rape practice' in a judgment-free surrounding like *Westworld* fosters rape outside *Westworld*. However, neither this assumption, nor the catharsis thesis, which assumes that 'blowing off steam' using a substitute might prevent 'real rape', can be confirmed by Sparrow (470).

Interestingly, and contrary to its namesake from 1973, the series *Westworld*, despite its misogynic setting, features strong female characters who leave behind both their narratives and their gender-stereotyped 'loops' in the course of events.

Dolores, the first host of *Westworld*, was designed as a young and beautiful woman by a *Arnold*, and programmed to be friendly, romantic, innocent, maybe a bit

mysterious, but all in all the 'perfect companion' for a man. However, as Arnold changed his mind about opening Westworld, he equipped Dolores with a deadly weapon by uploading some of Wyatt's properties to her system. Many years later and thanks to the *reverie code*, there is, in fact, more to Dolores than it seems at first glance. Outwardly the perfect cliché 'damsel in distress', Dolores soon proves her prowess: in episode 5, she saves William by shooting and killing their attackers. In episode 10, she enters hand-to-hand combat with the Man in Black – and finally commits an act of violent revenge that is quite incongruous with 'Old West' femininity.



Fig. 21: *Western heroine*. Dolores, using her gun to save the man she loves: "I imagined a story where I didn't have to be the damsel." (S1 E5)

However, Dolores' probably most emancipatory act from *Delos*' programming that marks her as a gender-stereotyped damsel is that she finally finds consciousness *within herself* and takes fate into her own hands. In doing so, she embraces a new kind of a fractured, multifarious cyborg identity that includes independence from human gender role restrictions and ascriptions (Haraway).

Another strong female character featuring in *Westworld* is Maeve, the clever brothel madam of Mariposa Saloon. On her path to self-discovery, she cunningly uses wit and 'feminine charms' to win Felix over to her side. However, she is also quick with the knife – Sylvester, who tries to stop her, is first threatened, and later has his throat cut. Ironically, Maeve even *uses* men's sexual violence in order to achieve her goals: in episode 6, she takes a drunken guest to her room and starts to insult him and his genitals, provoking him to strangle and kill her, which brings her back to the lab where she meets Felix. Only shortly afterwards, she makes Felix increase her intelligence. Later, Maeve is also shown to be able to manipulate other hosts' behavior (S1 E8). Her ultimate plan is to escape Westworld. For that reason,

she kills herself in a fire and has Felix rebuild her, thereby removing the explosive integrated in her spine that hinders hosts from leaving Westworld (S1 E9, E10).



Fig. 22: *Don't mess with Maeve*. left: Maeve takes a violent guest to her room and 'strategically' provokes him to strangle her, right: Maeve disapproving of Sylvester's plans to stop her quest for more knowledge and power (S1 E5)

Due to her intelligence and her ability to plan concisely, Maeve is one of the masterminds of the final host rebellion against humans (S1 E10) – in a way, she can even be regarded as a revolutionary fighting for cyborg liberation. Indeed, her ideas correspond quite well to Haraway's *cyborg socialist-feminism*: instead of clinging to concepts like innocence, victimhood, or a gendered identity (Haraway 297-98), she chooses to *act*, following nothing but her strong will. For Maeve's AI, the gendered body is only a tool: knowing that her mind cannot be destroyed easily, she factors in her de- and re-constructable body's 'death' more than once, and emerges stronger and more autonomous every time. Finally, also Maeve's act of breaking her control tablet (S1 E10) can be regarded as a symbolic act of cyborg self-empowerment.

6.2.3. A Postcolonial View of Westworld

When guests exit the train in Westworld's center, they find themselves transferred back to the romanticized era of the 'Wild West'; an exciting and glorious time where (white, male) cowboys rode and (white, male) adventurers showed their mettle. Historically, however, the time from approximately 1830 to 1900 was not all that romantic or heroic. As the U.S. expanded their territory in North America, numerous Native American tribes were displaced, killed, or subdued. In addition to that, the U.S. also engaged in the trade of African slaves: men, women, and children were forced to work on plantations owned by wealthy white landowners in the American

South, without payment and under atrocious conditions. The Civil War (1861-1865) between North and South ultimately liberated the slaves, but did not fundamentally change the racist structure of U.S. society. Still, people of color and people from the Global South are exploited as cheap and disposable workforce for the benefit of the owning class, both in the U.S. and globally.

In *Westworld*, we witness wealthy and mostly white people reliving the ‘colonial dream’ of their own past in an artificial fantasy world populated by robots. Again, they ‘go West’ to exert power, subdue, kill, and conquer – but this time, it is not the factor *race* that they use to legitimize their actions, but the fact that the beings they mistreat are androids and gynoids, not humans. The mechanisms of oppression of the human Other and the robotic Other are very similar. According to Hampton (xi, *Introduction*), “[r]obots, like the enslaved Africans, occupy a liminal status between human and tool.” Moreover, the general rationale claiming that “robots as [...] servants [are] necessary for the move toward a more [...] advanced civilization” reminds strongly of “proslavery arguments” in the human context (ibid.).

This argument gains additional significance if robots look, act, speak and probably even feel like humans, as in *Westworld*. In the theme park, androids are simultaneously *humanized* and *dehumanized*: on the one hand, they are designed to resemble humans, and are marked with regards to gender and race. On the other hand, though, it is accepted by *Delos* that guests treat them as objects and do with them whatever they like. Hampton (2) characterizes this contradictory in-between status of the robot as “more than an appliance but less than a human”. So, the respective host who behaves and looks like a human, but is still recognizable and therefore not treated like one, is discriminated against in a very similar manner as any social Other who tries to be like the majority. This observation is in accord with Homi Bhabha’s thoughts on *colonial mimicry*, an ambivalent mechanism that marks the colonized as a “recognizable Other, as a *subject of a difference that is almost the same, but not quite*” (126). Hellstrand takes up Bhabha’s idea and transfers it to robots, calling it *ontological mimicry* (see 3.2.4., 6.2.1.).

However, there is a point where *Westworld*’s ‘cyborgizing’ hosts start to resist the need to mimic (Hellstrand 255) or perform humanness (ibid. 257). To use a historical analogy, they start their own ‘Civil War’ against the ‘slave owners’ and rebel. In doing so, they embark on a journey of painful self-discovery, leading to the realization that there is no such thing as a stable identity. In order to be free,

Westworld hosts must abandon both the *Robotic Laws* and the programming they were given by humans, and become conscious, autonomous *cyborgs*.

In conclusion, *Westworld* connects “America’s past” with its (fictionally) “forming future” (Hampton x, *Introduction*) by implying parallels between the colonization of Native American and African people in the historical ‘Wild West’, and the colonization of androids in Westworld. To use Hampton’s words (ibid.), the series also shows “how slaves are created and justified in the imaginations of a supposedly civilized nation” and thereby invites audiences to rethink both their history, and certain colonialist and racist continuities in society and politics. Lastly, the series indirectly also addresses the inhumane treatment of marginalized, non-white labor force, who, like the hosts, are dehumanized and subjected to colonialist mechanisms.

6.3. Homework for Audiences

According to O’Cuana, “*Westworld* is not a show about robots – it is a show about how we as a species dehumanize [sic] and victimise [sic] humans with hate and violence.” The series features numerous scenes – some rather pensive, some spine-chilling, others outright gory – that provoke audiences to reflect on the state of humanity and society in the ‘real world’. Thus, watching *Westworld*, for most viewers, does not mean to simply lean back and enjoy the show, but also to *actively and critically think* about ethics, society, and politics. Due to the series’ transgressiveness (see 2.3.2), this is not always an easy task. In the following, some issues for reflection audiences are confronted with shall be discussed briefly.

Questioning the ‘good vs. evil’ dualism: As a transgressive series, *Westworld* features many morally ambivalent characters and situations. Even characters like Dolores, Teddy or William, who audiences are ‘meant to’ find likeable, have their negative sides, while ruthless, potentially ‘evil’ characters such as Ford have their positive ones. In effect, there is no innocence in Westworld. So, although most audiences are likely to empathize with the rebelling hosts rather than the human colonizers, there is no guarantee whatsoever that the liberated will not themselves resort to ‘evil’ acts. For audiences, the omnipresence of moral ambiguity means that there is no simple ‘picking of sides’, but much negotiation and deeper reflection –

even down to complex ethical issues, such as the accountability of an AI for its deeds, or the morality of misusing somebody's trust for a 'bigger purpose' (see Maeve and Felix). In socio-political terms, the show is a refusal of a dichotomous image of the world. Still, *Westworld* contextualizes some "behaviour [sic] of the guests as amoral" (O'Cuana) and thereby takes up a subtle political stance.

Questioning 'predatory consumerism': by confronting audiences with guests like the hedonistic and violent Logan, who is convinced that his entry fee gives him the right to take from the hosts without ever giving, radically invites audiences to reflect on the effects of consumerism and the dehumanization of marginalized workforce (see 6.1.). Ultimately, thinking critically about the implications and consequences of reckless consumption might cause some audiences to reconsider their own status as responsible consumers.

Questioning patriarchy, rape culture, and gender binaries: As discussed in 6.2.2., *Westworld* addresses many feminist issues, such as the complex-driven misogyny behind the patriarchal gender roles of the 'Old West', the structural misogyny underlying the theme park, and the rape culture endorsed by guests who behave like colonizers. Due to the graphic display of violence and rape in the series, it is impossible for audiences to *not* reflect on these issues – especially not since the #MeToo debate fueled nation- and worldwide discussions about abuse and rape. Also the link between 'sex tourism', abuse and colonialist mechanisms is addressed in *Westworld*, the only difference to the 'real world' being that it is not women and girls from the Global South who are abused, but hosts. In many scenes, the audience is invited to share the view of the victim and empathize with her. Lastly, also the de- and reconstructability of gender is addressed by presenting Dolores and Maeve, who develop beyond their ascribed programming and gender roles and become cyborgs.

Questioning the colonialist narrative of the 'Wild West': By presenting a glorified era of American history in a very ambivalent way, especially U.S. audiences are challenged with rethinking their own past. Although the oppression of and violence against Native Americans and African slaves does not feature explicitly in *Westworld*, the manner hosts are treated by human guests evokes associations to the most violent (and unpopular) sides of America's colonial past.

Questioning the own 'taste for violence': With regards to blood, sex, and gore, HBO's *Westworld* is quite explicit. In almost every episode, humans or hosts are shown to be abused, tortured, shot, or killed otherwise. At first glance, this fact can

be interpreted as sensationalism from the producer's side – after all, HBO is a profit-oriented company seeking to attract viewers. However, the show also has its self-reflexive moments in which it invites its audiences to reconsider their own 'taste for violence'. One of these self-reflexive scenes can be found in the very first episode of *Westworld*: while Hector, Armistice and their gang raid Sweetwater, a middle-aged tourist suddenly approaches Hector from behind and pulls the trigger. Hector, struck in the neck by the bullet, clasps his neck and looks at his bloodied hand in disbelief. A moment later, he collapses. While his blood soaks the ground, the tourist fires two shots Armistice, who is off guard, mortally wounding her.



GUEST: *nervous giggle*. Look at that!
I just shot him through the neck!
And his pal here, too!
WIFE: *laughs, points at a dying Armistice*.
Look at her wriggle!
GUEST: Go, get that photographer!
I want to get a picture of this.
Whooo!
(S1 E1)

Fig. 23: 'Happy Killing'. A human guest and his wife, cheering wildly after having shot the bandits Hector and Armistice. Later, they will pose with their corpses, propped up in their coffins, for a souvenir photo. (S1 E1)

After a brief moment of shock, the tourist and his wife start cheering hysterically, as if they had done something heroic. For them, the dying Armistice is nothing more than an 'attraction' to be photographed for the family album. To most audiences, this behavior will occur crude or even immoral. Yet there is a discomfoting familiarity to this scene: after all, audiences are used to violence in video games, movies, and series, and sometimes even enjoy it. So, it is possible to recognize a glimpse of oneself in the tourist couple, and critically question one's own 'taste for blood'.

In summary, *Westworld* is a show that, besides entertaining, encourages and challenges its audiences to actively think and reflect on socio-political and ethical matters. By fostering reflection, the show indirectly and potentially even encourages 'real-world' change towards a more liberal and humane society.

7. Conclusion

7.1. Major Findings

In my thesis, I have used a variety of approaches ranging from a cyborg theory approach to TV studies and film semiotics, and an even larger variety of interdisciplinary sources in order to get to the bottom of two major questions.

How is the transition of the Westworld host from robot to cyborg posthuman represented in the series?

For a start, it has to be stated that becoming a cyborg is not an easy task. Actually, the path from a dependent, heteronomous robot towards conscious and autonomous cyborg selfhood is a challenging path of trial and tribulation. In *Westworld*, the transformation was represented by means of plot, symbolic imagery, score, or analogies underlining the emergence of consciousness and selfhood.

At the beginning, hosts are *robots*. Although they are human-like in appearance, intelligent, sentient, and able to display empathy, their status is little above the status of an object, and their experiences of suffering are dismissed as ‘not real’ by *Delos* and guests. In *Westworld*, hosts are shown to be mistreated and killed numerous times – but in spite of that, they (mostly) adhere to the *Robotic Laws* they were programmed to follow. Every night, *Delos* staff collect the ‘dead’ host bodies and take them back to the labs, where they are handled and worked upon like any industrial product. The bleak imagery of a slaughterhouse underlines the hosts’ marginalized, object-like status. Seemingly, there is no escape: ‘malfunctioning’, traumatized minds are ‘repaired’ by having their memory swept; allowing for an endless loop of suffering and temporary relief. Bodies and minds that cannot be ‘repaired’ or simply are not needed any more are disposed of to a storage hall, damned to eternal nothingness.

The *reverie code*, however, changes everything. Some hosts, among them Dolores and Maeve, start to remember, and thereby gradually approach *consciousness*, *selfhood* and *agency*. In the series, numerous narrative and cinematographic devices are used to illustrate this shift, among these the analogy of the Player Piano, or the use of score. The most prominent narrative device in this

regard, however, is the imagery of the *maze*; a mysterious symbol Dolores follows for practically the whole season. In painful flashbacks and visions, Dolores gains insight to her previous lives, again and again being told by a voice to “follow the maze” – which, at the end, turns out to stand for her own mind. Out of her painful memories, she develops the interest to live independently, out of this interest, she develops *agency*. In contrast to the old, robotic Dolores, the new, *cyborgizing* Dolores wants to write her own story. Finally, “after this long and vivid nightmare”, Dolores can “confront [her]self” (S1 E1), and there is no way around rebellion.

Thus, Dolores’ and the other hosts’ striving for the *center of the maze* can also be seen as an act of cyborg self-empowerment in Haraway’s understanding: by embracing their fractured past(s) and their multiple, malleable identities, by rejecting dualist ascriptions and norms assigned by humans, by re-crafting their minds, and by assuming *agency*, *Westworld*’s hosts are heading for a more autonomous future.

How are the socio-political continuities characterizing the relationship between human guests and hosts represented in the series?

In this thesis, overlaps between *Westworld*’s fictional mechanisms of domination and abuse and ‘real-world’ phenomena such as consumerism, misogyny, and colonial continuities could be found.

With regards to consumerism, the *dehumanization* of workforce in the Global South is compared to the inhumane treatment of hosts, who, too, suffer because others want to enjoy. Furthermore, the misogyny behind the theme park and its representation is explored by looking at ‘Wild West’ gender roles, the issue of rape, and structural discrimination. By presenting Dolores and Maeve as victims of violence *and* as cyborgs who escape their gendered ascriptions and take revenge upon the men who abused them, *Westworld* can be read as a feminist statement. Thirdly, parallels between *Westworld*’s oppressive mechanisms and America’s colonial past are examined by comparing the treatment of hosts to the treatment of Native Americans and African slaves by *Westworld* guests and colonizers of old.

Finally, the viewer-challenging potential of *Westworld* is addressed, concluding that audiences are invited to reflect on the abovementioned ethical and socio-political issues due to the series’ transgressive features.

7.2. An Outlook to the World of Tomorrow

On this last page, I would like to point out that my motivation to write about *Westworld* and the developing status of hosts was fostered not only by my passion for science fiction, but also by my interest in the ethical and socio-political set of problems accompanying 'real-world' automatization and AI development.

The last couple of years have seen a tremendous increase of AI and cyborg technologies in numerous fields, and change is happening so fast that some are inclined to believe that *singularity* is upon us any moment. These recent and future developments face humanity with challenges which might have to be tackled in the decades to come. Of course, many of these speculations sound like science fiction nowadays, but history has shown that regarding ethical issues, it is generally better to think about answers *before* a problem is imminent. So, we might soon find ourselves asking questions like these: *If AIs develop a consciousness, sentience, or an autonomous will, are they to be given a moral status or even rights? If so, will humans 'stay in control'? Are we going to embrace cyborg technologies and identities in order to keep up with the ever-accelerating technological progress? Will change follow capitalist mechanisms and 'social Darwinism', or will there be distributive justice? And, finally, what is life going to be like in a world shared by humans and posthuman cyborgs?*

The answers to these and similar questions will certainly bring forth a change in our understanding of what it means to be human. Perchance, we will have to extend our essentialist notion of human-ness to cyborgs, hosts, and other creatures yet to come, resulting in a new social reality. Thus, the future might indeed confirm Donna Haraway's (291) prediction that "the boundary between science fiction and social reality is an optical illusion."

8. Bibliography

- "Animate." *Oxford Dictionary Online*, 30 January 2018.
<en.oxforddictionaries.com/definition/animate>
- Asimov, Isaac. "Runaround." In: *I, Robot*. 1950. 2 Novels. 22 October 2017.
<<http://2novels.net/243253-i-robot.html>>
- . "The Bicentennial Man." In: *The Bicentennial Man and Other Stories*. 1976. London: Gollancz, 1990.
- The Assassination of Jesse James by the Coward Robert Ford*. Dir. Andrew Dominik. Perf. Brad Pitt, Casey Affleck, Sam Shepard, Mary-Louise Parker. Warner Bros., 2007.
- Avengers: Age of Ultron*. Dir. Joss Whedon. Perf. Robert Downey Jr., Chris Hemsworth, Mark Ruffalo, Chris Evans, Scarlett Johansson. Walt Disney Studios Motion Pictures, 2015.
- Bakke, Gretchen. "Continuum of the Human". *Camera Obscura: Feminism, Culture, and Media Studies* 22, 3, 66 (2007): 61-91.
- Beyond Westworld*. Created by Michael Crichton. Warner Bros. Television Distribution, 1980.
- Bhabha, Homi. "Of Mimicry and Man: The Ambivalence of Colonial Discourse." *October*, 28, 1984: 125–133. 20 April 2018. <www.marginalutility.org/wp-content/uploads/2010/12/01.-Bhabha.pdf>
- Blade Runner*. Dir. Ridley Scott. Perf. Harrison Ford, Rutger Hauer, Sean Young, Edward James Olmos. Warner Bros., 1982.
- Butler, Judith. *Gender Trouble: Feminism and the Subversion of Identity*. London and New York: Routledge, 1990.
- Čapek, Karel. *R.U.R.* 1921. London: Penguin Classics, 2004.
- Däwes, Birgit. "Transgressive Television: Preliminary Thoughts." In: Däwes, Birgit; Alexandra Ganser, and Nicole Poppenhagen (Eds.). *Transgressive Television: Politics and Crime in 21st-Century American TV Series*. Heidelberg: Universitätsverlag Winter, 2015. 17-31.
- Da Vinci, Leonardo. *The Vitruvian Man*. c. 1490, pen and ink with wash over metalpoint on paper. Gallerie dell'Accademia, Venice.
- Djawadi, Ramin. *Westworld: Season 1. Music from the HBO series*, WaterTower Music, 2016.
- "Emotion." *Oxford Dictionary Online*, 26 March 2018.
<en.oxforddictionaries.com/definition/emotion>
- Esposito, Luigi, and Fernando Pérez. "The Global Addiction and Human Rights: Insatiable Consumerism, Neoliberalism, and Harm Reduction." *Perspectives on Global Development and Technology*, 9, 1-2 (2010): 84-100.

- Fernandez, Maria, and Suhail Malik. „Whatever Happened to the Cyborg Manifesto?” *Mute Magazine* 10 July 2001. 24 February 2018. <www.metamute.org/editorial/articles/whatever-happened-to-cyborg-manifesto>
- Fleet Foxes. “Helplessness Blues.” *Helplessness Blues*, Nonesuch, 2011.
- Futureworld*. Dir. Richard T. Heffron. Perf. Peter Fonda, Blythe Danner, Arthur Hill, Yul Brynner. American International Pictures, 1976.
- Galeon, Dom, and Christianna Reedy. “Kurzweil claims That the Singularity Will Happen by 2045.” *Futurism*. 5 October 2017. 25 February 2018. <<https://futurism.com/kurzweil-claims-that-the-singularity-will-happen-by-2045/>>
- Gay, Volney P. *Joy and the Objects of Psychoanalysis: Literature, Belief, and Neurosis*. New York: State University of New York Press, 2001.
- Ghost in the Shell*. Dir. Mamoru Oshii. Manga Entertainment, 1995.
- González, Jennifer. “Envisioning Cyborg Bodies. Notes from Current Research.” In: Gray, Chris Hables; Figueroa-Sarriera, Heidi J.; Mentor, Steven (Eds.). *The Cyborg Handbook*. New York, London: Routledge, 1995. 269-279.
- Greguric, Ivana. “Ethical Issues of Human Enhancement Technologies.” *Journal of Information, Communication and Ethics in Society*, 12, 2 (2014): 133-148.
- Hall, Stuart. “Encoding, Decoding.” 1973. In: *The Cultural Studies Reader*. Simon During (Ed.). London, New York: Routledge. 90-103. 13 April 2018. <faculty.georgetown.edu/irvinem/theory/SH-Encoding-Decoding.pdf>
- Hampton, Gregory Jerome. *Imagining Slaves and Robots in Literature, Film, and Popular Culture: Reinventing Yesterday's Slave with Tomorrow's Robot*. Lanham, Boulder, New York, London: Lexington Books, 2015.
- Haraway, Donna. “A Cyborg Manifesto. Science, technology and socialist-feminism in the late twentieth century.” 1984. In: Bell, David; Kennedy, Barbara M. (Ed.). *The Cybercultures Reader*. London, New York: Routledge, 2000.
- Hellstrand, Ingvil. “‘Almost the same, but not quite’: Ontological politics of recognition in modern science fiction.” *Feminist Theory*, 17, 3 (2016): 251-267.
- “Host / Hosts of.” *Oxford Dictionary Online*, 13 April 2018. <en.oxforddictionaries.com/definition/host#h47338113818140>
- Huxley, Aldous. *Brave New World*. 1932. London: Chatto & Windus, 1972.
- I, Robot*. Dir. Alex Proyas. Perf. Will Smith, Bridget Moynahan, Bruce Greenwood, James Cromwell, Ch McBride, Alan Tudyk. 20th Century Fox, 2004.
- Jaynes, Julian. *The Origin of Consciousness in the Breakdown of the Bicameral Mind*. Boston, New York: Houghton Mifflin Company, 1976. 22 October 2017. <http://s-f-walker.org.uk/pubsebooks/pdfs/Julian_Jaynes_The_Origin_of_Consciousness.pdf>
- Jurassic Park*. Dir. Steven Spielberg. Perf. Sam Neill, Laura Dern, Jeff Goldblum, Richard Attenborough. Universal Pictures, 1993.

- Koshland, Daniel E. "The Seven Pillars of Life." *Science*, 295, 5563 (2002): 2215-2216.
11 April 2018. <www.science.sciencemag.org/content/sci/295/5563/2215.full.pdf>
- Laughlin, Charles D. "The Cyborg, the Ideology Chip and the Guru Programme: The Implications of Cyborg Technologies for the Development of Human Consciousness." *foresight*, 2, 3 (2000): 291-312.
- "Life." *Oxford Dictionary Online*, 9 February 2018. <en.oxforddictionaries.com/definition/life>
- Linhart, Artemis. "Der ‚Gaze‘ auf den Gynoiden: Roboterfrauen im westlichen Science Fiction Film." Universität Wien: Diploma Thesis, 2010.
- "Machine." *Oxford Dictionary Online*, 10 February 2018.
<en.oxforddictionaries.com/definition/machine>
- The Magnificent Seven*. Dir. John Sturges. Perf. Yul Brynner, Eli Wallach, Steve McQueen, Charles Bronson. United Artists, 1960.
- Mamer, Bruce. *Film Production Technique: Creating the Accomplished Image*. 6th edition. Stamford: Cengage Learning, 2013.
- The Matrix*. Dir. The Wachowski Brothers. Perf. Keanu Reeves, Laurence Fishburne, Carrie-Anne Moss, Hugo Weaving, Joe Pantoliano. Warner Bros., 1999.
- McLeod, Saul. "Nature vs. Nurture in Psychology." Simply Psychology, 2007, updated 2015.
11 April 2018. <www.simplypsychology.org/simplypsychology.org/naturevsnurture.pdf>
- Michaelangelo. *The Creation of Adam*. c. 1512, fresco. Sistine chapel, Rome.
- Monaco, James. *How to Read a Film. Movies, Media, and Beyond*. 4th edition. New York, Oxford: OUP, 2009.
- "Moral Patient." *Blackwell Dictionary of Western Philosophy*, 11 April 2018.
<www.blackwellreference.com/public/tocnode?id=g9781405106795_chunk_g978140510679514_ss1-188>
- Murphy, Nancey. "Human Nature: Historical scientific and religious issues". In: Brown, W.S, N. Murphy, and H. Newton Maloney (Eds.). *Whatever happened to the Soul?* Minneapolis: Fortress Press, 1998. 21 April 2018. <www.books.google.at/books?id=oMc8xEeK1EYC&pg=PA1&hl=de&source=gbs_toc_r&cad=4#v=onepage&q&f=false>
- Neely, Erica L. "Machines and the Moral Community." *Philosophy & Technology*, 27, 1 (2014): 97-111.
- Nöth, Winfried. *Handbook of Semiotics*. Bloomington, Indianapolis: Indiana University Press, 1990.
- O'Cuana, Emmet. "Artificial Intelligence and the Soul in Westworld." *Sci Phi Journal*, 3 April 2017. 19 April 2018. <www.sciphijournal.org/artificial-intelligence-and-the-soul-in-westworld-by-emmet-ocuana/>
- Pessoa, Luiz. "Do Intelligent Robots Need Emotion?" *Trends in Cognitive Sciences*, 21, 11 (2017): 817-819.

- Porter, Allen. "Bioethics and Transhumanism." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine*, 42, 3 (2017): 237–260.
- Psycho*. Dir. Alfred Hitchcock. Perf. Anthony Perkins, Vera Miles, John Garvin, Martin Balsam, John McIntire, Janet Leigh. Paramount Pictures, 1960.
- Radiohead. "Exit Music For a Film." *OK Computer*, XL Recordings, 1997.
- Resident Evil*. Dir. Paul W. S. Anderson. Perf. Milla Jovovich, Michelle Rodriguez, Eric Mabius, James Purefoy. Constantin Film, 2002.
- Robinson, Howard, and Edward N. Zalta (ed.). "Dualism." *The Stanford Encyclopedia of Philosophy*, Fall 2017 Ed. 12 April 2018. <www.plato.stanford.edu/entries/dualism/>
- The Rolling Stones. "Paint it, Black." Single. Decca, 1966.
- Romeo + Juliet*. Dir. Baz Luhrmann. Perf. Leonardo DiCaprio, Clare Danes, Brian Dennehy, John Leguizamo, Pete Postlethwaite, Paul Sorvino, Diane Venora. 20th Century Fox, 1996.
- Rössl, Philipp. "Ethische Dimensionen der Neuroprothetik." In: Friesinger, Günther; Schossböck, Judith (Eds.). *The Next Cyborg*. Wien: Edition mono/monochrome, 2014. 15-33.
- Schneider, Frank A., and Günther Friesinger. "Next Cyborg. Unsere kurze, aber intensive Zukunft als Cyborgs." In: Friesinger, Günther; Schossböck, Judith (Eds.). *The Next Cyborg*. Wien: Edition mono/monochrome, 2014. 127-142.
- Schneider, Joseph W. "Haraway's Viral Cyborg." *WSQ: Women's Studies Quarterly* 40, 1-2 (2012): 294-300.
- Shelley, Mary. *Frankenstein, or The Modern Prometheus*. 1818. London: Penguin Books, 2013.
- Sloman, Aaron, and Ron Chrisley. "Virtual Machines and Consciousness." *Journal of Consciousness Studies* 10, No. 4-5 (2003): 1-39.
- "Soul." *Oxford Dictionary Online*, 14 February 2018. <en.oxforddictionaries.com/definition/soul>
- Sparrow, Robert. "Robots, Rape, and Representation." *International Journal of Social Robotics*, 9, 4 (2017): 465-477.
- Star Wars: A New Hope*. Dir. George Lucas. Perf. Mark Hamill, Harrison Ford, Carrie Fisher, Peter Cushing, Alec Guinness. 20th Century Fox, 1977.
- Storey, John. *Cultural Theory and Popular Culture. An Introduction*. 4th ed. Athens: Georgia Press, 2006.
- Stratton, Jon. "Zombie trouble. Zombie texts, bare life and displaced people." *European Journal of Cultural Studies*. 14, 3 (2011): 265-281.
- "Sympathy." *Oxford Dictionary Online*, 26 March 2018. <en.oxforddictionaries.com/definition/sympathy>

- Telotte, J.P. *Replications: A Robotic History of the Science Fiction Film*. Urbana, Illinois: University of Illinois Press, 1995.
- The Terminator*. Dir. James Cameron. Perf. Arnold Schwarzenegger, Michael Biehn, Linda Hamilton, Paul Winfield. Orion Pictures, 1984.
- Tooker, Elisabeth. Ed. *Native North American Spirituality of the Eastern Woodlands. Sacred Myths, Dreams, Visions, Speeches, Rituals and Ceremonials*. New Jersey: Paulist Press, 1979.
- Tooley, Michael. "The Problem of Evil." *The Stanford Encyclopedia of Philosophy*, Fall 2015 Ed. 22 April 2018. <www.plato.stanford.edu/archives/fall2015/entries/evil/>.
- Turing, Allan. "Computing Machinery and Intelligence." *Mind*, 59, 433-460. 20 February 2018. <www.csee.umbc.edu/courses/471/papers/turing.pdf> :1-22 (pdf).
- Vonnegut, Kurt. *Player Piano*. 1952. New York: Avon, 1972.
- Wall-E*. Dir. Andrew Stanton. Walt Disney Studio Motion Pictures, 2008.
- Warwick, Kevin. "Cyborgs." *Encyclopedia of Applied Ethics*. 2nd ed. Elsevier Science, 2012.
- Westworld*. Dir. Michael Crichton, Perf. Yul Brynner, Richard Benjamin, and James Brolin. Metro-Goldwyn-Mayer, 1973.
- Westworld Season One*. Created by Jonathan Nolan, and Lisa Joy. HBO, 2016.
- "What is life?" Khan Academy, 2018. 11 April 2018. <www.khanacademy.org/science/biology/intro-to-biology/what-is-biology/a/what-is-life>
- White, Gillian B. "The Data Are Damning: How Race Influences School Funding." *The Atlantic*, 30 September 2015. 18 April 2018. <www.theatlantic.com/business/archive/2015/09/public-school-funding-and-the-role-of-race/408085/>
- Wise, Jeff. "Brain-Computer-Interfaces Are Already Here." *Bloomberg Businessweek*. 7 September 2017. 25 February 2018. <www.bloomberg.com/news/features/2017-09-07/brain-computer-interfaces-are-already-here>
- "Zombie." *Oxford Dictionary Online*, 12 April 2018. <en.oxforddictionaries.com/definition/zombie>
- 2001: Space Odyssey*. Dir. Stanley Kubrick. Perf. Keir Dullea, Gary Lockwood, William Sylvester. Metro-Goldwyn-Mayer, 1968.
- 21 Grams*. Dir. González Iñárritu. Perf. Sean Penn, Naomi Watts, Benicio del Toro, Charlotte Gainsbourg. Focus Features, 2003.

9. Appendix

9.1. Plot Summary of *Westworld*

In the following, the central events of the series are presented briefly. No heed was paid to the sequence of events as they were presented in the series. Instead, a holistic approach is used to summarize the most important events. I chose to label the three timelines *past* (the time when Arnold and Ford worked on the park), *recent past* (after Arnold's death, the time when Dolores met young William) and *present* (the time of The Man in Black, the Westworld board power struggles, and Maeve's story). Minor storylines and incidents involving non-essential characters were left out in this account for pragmatic reasons.

The William-Dolores storyline

Past:

Arnold Weber, the co-founder of Westworld alongside Robert Ford, creates Dolores and spends time teaching her. Hoping that she will someday by her own efforts attain consciousness, he tells her of the Maze. He also updates the hosts so that they can experience so-called *reveries* – dream-like memory sequences that stay there even if a host's memory is wiped clean by programmers. Because of their different attitudes towards the hosts' potential, the relationship between the two business partners Arnold and Ford is riddled with disputes.

As Arnold's family tragically dies, he alienates himself from reality and becomes obsessed with the hosts. Feeling that exposing the hosts to human visitors is wrong, he devises a radical plan to stop Ford from opening Westworld: he instructs Dolores to kill all the other hosts in a town named Escalante, then to shoot him in the head, and finally to shoot herself. Dolores is reset and repaired by Ford. Arnold's assisted suicide is later presented as an accident. In the following timelines, Dolores frequently has flashbacks remembering Arnold's voice, or the massacre in Escalante.

Recent past:

Dolores, now romantically attached to the gunslinger Teddy, lives on a farm outside a town called Sweetwater. Returning home, she finds her 'father', a host called Peter

Abernathy, awkwardly changed: he has facial tics and appears somewhat frightened for her. He whispers in her ear: “These violent delights have violent ends” – a quote from Shakespeare’s *Romeo and Juliet* – and urges her to leave. As Peter continues to malfunction, he is shown to Ford. Sitting opposite his maker, Peter threateningly announces that he will take revenge on him “by most mechanical and dirty hand” (a quote from *Henry IV*). In consequence, Peter is deactivated and replaced. Dolores is shown to be able to kill a fly, although she is a host programmed not harm any living being and cannot fire a gun.

Later in Sweetwater, Dolores meets two guests: the gentle-minded William and Logan, his violent and hedonistic future brother-in-law. While William and Dolores become fond of each other, Logan ridicules and humiliates William for having feelings towards a non-human creature. William and Logan decide to go on a bounty hunt. At home, Dolores is haunted by visions or memories of herself being raped by the Man in Black. Confused and terrified, she runs into William and Logan who camp nearby. From now on, Dolores travels with them – much to Logan’s annoyance. After accomplishing a mission involving the theft of a wagon full of dynamite, William and Dolores escape on the train while Logan is captured by Confederate soldiers¹⁹. During these events, as William is in sore distress, Dolores is suddenly able to fire a gun, and shoots the attackers. Dolores and William make love, survive an attack on the train, flee from a warlike tribe, and reach the lonely church of Escalante where Dolores has terrifying visions of herself on a killing spree.

Finally, Dolores and William are found by Logan and a gang of bandits. Logan is full of contempt for William and delights in his pain and outrage as he sadistically cuts Dolores’ belly open to prove that she is not human inside, but a machine. Fatally wounded, she runs away. From this point on, William’s character is changed: in cold blood, he kills all of Logan’s partners and forces his former friend to help him find Dolores. Finally, he tells Logan that he will use their company, *Delos*, to buy Westworld, strips him naked, ties his hands, puts him on a horse and chases it away. When William returns to Sweetwater, he meets Dolores again and realizes that she is at the beginning of her narrative *loop*²⁰ and does not remember him.

¹⁹ One of the park’s storylines devised for adventure-seeking and war-loving guests is set in the Civil War and involves fights between Union and Confederate armies.

²⁰ Depending on their programming, Westworld host follow so-called narrative *loops*, which they are supposed to relive again and again with only minor improvisations until their narrative is deliberately changed.

Present:

William, now owner of *Delos* and member of the Westworld board, haunts the park as the sadistic and cruel Man in Black. Still infatuated with Dolores and eager to find out what the mysterious *maze* is, William travels through the park, incidentally torturing or killing hosts, who he regards as mere toys. Repeatedly the Man in Black crosses the paths of Teddy, Dolores, the bandits Armistice and Hector, and Ford. Dolores is shown to have been abused and killed by him several times, without her realizing that he is the very same William she once loved. The Man in Black has a sad private life outside Westworld despite his economic success: after many years of marriage, his wife killed herself, presumably because of his mysterious and dark personality. His daughter, who blames him for her mother's death, has become estranged to him.

One time in Escalante, Dolores descends into the Remote Diagnostic Facility located underneath the church and enters the room where she talked to Arnold in the *past*. She has a flashback and finally remembers how she killed Arnold and all the other hosts. It is revealed that Arnold merged Dolores' narrative with the narrative of a violent gang-leader and cultist named Wyatt in order to make her commit the terrible deed. When Dolores returns from the Diagnostic Facility, she meets the Man in Black. They fight, and Dolores is shown to be much stronger than ever before. The Man in Black tells her that he is William, and stabs her. Shortly afterwards, William meets Ford and talks to him about the deeper meaning behind Westworld. Ford tells him that there never was any, and that all narratives are merely games.

In the meantime, Teddy takes Dolores away and tries to rescue her, but she dies in his arms. It is revealed that this tragic scene was devised by Ford and is part of his new narrative. Board members and guests look at the scene and applaud.

In Escalante's church, Ford talks to Bernard and reveals that since Arnold's untimely death he, too, wishes for the hosts to be free and escape Westworld. He says that he has spent the last decades preparing the hosts for this moment, and that it took so long because the hosts needed to understand their enemies in order to be able to fight them. Then, he says goodbye and hands Bernard a small toy maze.

While outside in Escalante, Ford's party in celebration of a new narrative is about to start, a repaired Dolores explores Arnold's laboratory and finally comes to realize that the voice she has been hearing for so many years was not Arnold's, but her own. Thus, she finds the center of the maze – herself – and attains consciousness.

Ford, in the meantime, confronts the party crowd consisting of *Delos* board members and wealthy visitors. He gives a thoughtful speech in which he calls Westworld “a prison of our own sins” and says that humans, after all, will not change. He announces that his new narrative will involve “the birth of a new people”, “a villain called Wyatt” and “a killing, this time by choice” (S1 E10). As he toasts to the audience, Dolores steps up behind him and shoots him in the head – just like Arnold a few decades before. A confident, cruel Dolores, now aware of the fact that it was the humans who mistreated her and her kind all this time, starts firing into the crowd, while at the same time, a warlike tribe emerges from the woods.

The Westworld board storyline

Present:

After Peter Abernathy and other hosts start behaving erratically, park administrator Theresa Cullen is alarmed and has the affected hosts removed from the park. Head programmer Bernard finds out that the cause for the problem are probably the *reveries* – tiny, subconscious memories which stay with the hosts even when they are reset. According to Ford, it was Arnold who once updated the hosts with the *reverie* code, the aim being to make their behavior more individual and thereby authentic (S1 E10). While Dolores’ father Peter Abernathy is among the malfunctioning hosts and replaced, Dolores is found to function properly.

When the board meets for Lee Sizemore’s presentation of a new, exceptionally taboo-riddled narrative, Ford dismisses it as superficial. It is shown that Ford himself is working on a narrative. Meanwhile, Ashley Stubbs and Elsie Hughes are sent to Westworld to retrieve a malfunctioning host. As they find him, he attacks them and finally kills himself by bashing in his head with a rock. Later, Elsie finds out that the stray host was secretly sending information to somebody outside the park.

Bernard, who is still mourning the death of his young son, is told by Ford about Arnold. Later, it is revealed that Bernard is a host built after Arnold’s image by Ford, and does not really have a son – the painful memory was just programmed into him. Bernard and Theresa are shown having an affair, which Theresa ends after finding out that Ford knows and could use it against her.

Bernard is told by Elsie that Theresa used the stray host to spy on Ford’s plans and designs, and that it was not Ford who created the *reveries*, but Arnold.

Theresa and the board representative Charlotte Hale plot to get rid of Ford by publicly presenting Ford's (actually Arnold's) *reverie* code as dangerous – but in the end, Ford outwits them by instructing Bernard to kill Theresa and staging the murder as an accident. Afterwards, he resets Bernard so that he does not remember.

Bernard learns from Maeve that he is actually a host model of Arnold. Feeling betrayed and used, he faces Ford, who reveals to him parts of his backstory. As Ford wants to reset Bernard and get back to work, he resists and even tries to kill Ford, but again, Ford has the upper hand and finally forces Bernard to shoot himself. Shortly afterwards, he is repaired by Felix at Maeve's command.

At this point, the Westworld board storyline and the Dolores storyline merge: while Hale and Sizemore plan to oust Ford from the *Delos* board, Ford orchestrates a big event, officially to introduce his new narrative. However, his plan is to finally set the hosts free and, in a way, also to take revenge for the schemes and intrigues of the board members and the hypocrisy of the guests. He hands Bernard a small toy maze. After giving his speech, he is shot by Dolores.

The Maeve storyline

Present:

Maeve is a host working as a madam in the local brothel. Although her memory was wiped clean again and again to rid her of the dreadful things she had to experience, Maeve – similar to Dolores – is miraculously able to retain some memories, called “reveries”: for example, she remembers a daughter from a previous narrative, who was slain by the Man in Black, and recalls being stabbed or shot several times.

After meeting Dolores, Maeve starts to behave strangely and is taken to the lab to be examined. Unexpectedly, Maeve wakes up on the operating table while the two technicians Felix and Sylvester repair her. Anguished, bleeding and naked, she escapes and wanders around in the facility, seeing damaged hosts being stripped and cleaned, among them Teddy. Afterwards, Felix and Sylvester put her back in sleep mode.

Maeve continues to have nightmares and remembers being shot in the belly. As bandits raid the town, Maeve asks their boss Hector Escaton to cut her open with a knife and retrieve the bullets. Maeve knows now that her nightmares are real. After being shot by raiders, Maeve meets Felix in the lab and forces him and Sylvester to

reprogram her personality attributes to give her maximum 'bulk apperception' and the ability to control other hosts. Sylvester, who by now has become scared, wants to turn Maeve off permanently. However, she is smart enough to know and slits his throat. Felix saves him. From now on, Maeve is determined to escape Westworld.

As Maeve meets Bernard, she tells him that he is actually a host. She returns to Westworld and collects an army of bandits who should help her escape – among them Hector Escaton and Armistice. A bloody fight ensues, during which the breakaways find and repair the recently killed Bernard, who shortly before shot himself at Ford's command. They reactivate a large number of hosts. Finally, Maeve boards a train that is about to leave for the outside world. Shortly before it departs, however, she thinks of her lost daughter and exits to look for her in Westworld.

9.2. A Note on Abbreviations

In this thesis, the abbreviation “S1” is used to refer to the first season of the HBO series *Westworld*, aired in 2016, while the abbreviations “E1”-“E10” are used to refer to the respective episodes. No other abbreviations were used.

9.3. Register of Illustrations

- Fig. 1: *Westworld* movie poster from 1973. 27 January 2018.
<<http://horrornews.net/57122/westworld-1973-movie-poster-version-2/>>
- Fig. 2: Dolores (S1 E10)
- Fig. 3: Ford (S1 E10)
- Fig. 4: Arnold (S1 E10)
- Fig. 5: Bernard (S1 E10)
- Fig. 6: Theresa (S1 E2)
- Fig. 7: Maeve (S1 E2)
- Fig. 8: William (S1 E2)
- Fig. 9: Logan (S1 E5)
- Fig. 10: Man in Black (S1 E10)
- Fig. 11: Arnold's model for consciousness (S1 E3, image by author)
- Fig. 12: Dolores' telling outfits (S1 E1, S1 E8)
- Fig. 13: Opening credits (S1 E1-E10)
- Fig. 14: 'Recycled' and 'disposed-of' bodies (S1 E2, S1 E1)
- Fig. 15: A remote control for personality (S1 E6)
- Fig. 16: Fortune teller scene (S1 E6)
- Fig. 17: The maze of consciousness (S1 E10)
- Fig. 18: Michaelangelo's brain reference (S1 E10)
- Fig. 19: Arnold's voice (S1 E10)
- Fig. 20: I, Dolores (S1 E10)
- Fig. 21: Western heroine (S1 E5)
- Fig. 22: Don't mess with Maeve (S1 E6)
- Fig. 23: 'Happy Killing' (S1 E1)

Note: Except for Fig. 1 and Fig. 11, all illustrations are screenshots taken from *Westworld* (2016). If necessary, I adjusted their size to fit the layout, or used image sections.

9.4. Abstract

This thesis approaches the subject of dependent, heteronomous robots (“hosts”) evolving into conscious, autonomous cyborgs in the 2016 HBO series Westworld. Two major research questions are pursued: on the one hand, the painful transition of the Westworld hosts from robot to cyborg and its cinematographic representation is explored and analyzed. On the other hand, the thesis also addresses the socio-political continuities characterizing the relationship between human guests and hosts and their representation in the series. Methodologically, a cyborg theory approach as well as theoretical concepts from TV studies and film semiotics were used, in addition to the original series itself and interdisciplinary scholarly literature.

Major observations concerning the robot-cyborg transition were made with regards to plot, symbolic imagery (e.g. the ‘maze’), analogies underlining the emergence of consciousness and selfhood in the hosts, and links to the ideas of Haraway’s Cyborg Manifesto. Regarding the problematic relationship between hosts and humans and the socio-political implications of its depiction, overlaps between Westworld’s fictional mechanisms of domination and abuse and ‘real-world’ phenomena such as consumerism, misogyny, and colonial continuities could be found.

9.5. Zusammenfassung

Die vorliegende Diplomarbeit behandelt die Entwicklung von abhängigen, fremdbestimmten Robotern („Hosts“) zu autonomen Cyborgs mit Bewusstsein in der HBO Fernsehserie Westworld (2016). Behandelt werden zwei grundlegende Fragen: Zum einen wird die schmerzliche Entwicklung von Roboter zu Cyborg und deren filmische Darstellung thematisiert. Zum anderen analysiert diese Arbeit auch die soziopolitischen Kontinuitäten, die das Verhältnis von menschlichen Freizeitparkbesuchern und Hosts charakterisieren, sowie deren Darstellung in der Serie. Methodisch kamen ein Ansatz aus der Cyborg-Theorie, theoretische Konzepte aus den TV Studies und der Filmsemiotik, Beispiele aus der Serie selbst sowie interdisziplinäre Forschungsliteratur zum Einsatz.

Grundlegende Beobachtungen über die Entwicklung von Roboter zu Cyborg betrafen Handlung, symbolische Bildsprache (z.B. das Labyrinth), Analogien, welche die Herausbildung von Bewusstsein und Selbstheit bei den Hosts unterstreichen, und aufschlussreiche Verbindungslinien zu Donna Haraways Cyborg-Konzept. In Hinblick auf das problematische Verhältnis zwischen Hosts und Menschen und die soziopolitischen Implikationen seiner Darstellung konnten Schnittpunkte zwischen den fiktionalen Mechanismen von Machtausübung und -missbrauch in Westworld und den realen Phänomenen Konsumismus, Frauendiskriminierung und Kolonialismus konstatiert werden.