

## Cyborgian Self-Awareness: Trauma and Memory in *Blade Runner* and *Westworld*

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### Abstract

This paper examines the idea of memory being a dangerous weapon through the genre of sci-fi, specifically as the basis of a collective history for artificial life forms which poses a danger to the state, as I examine three shows: *Blade Runner*, *Blade Runner 2049*, and the HBO series *Westworld*. Furthermore, the affect of traumatic memories in artificial life parallels the ways that the state deals with post-traumatic stress (PTS) in soldiers; in this revelation I examine parallels to veteran testimonies of military atrocities. Overall, three things arise within these stories: 1) Memory is dangerous to the state; 2) The state attempts to manage and control memory; and 3) Memory can be liberatory, as it is an act of resistance.

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“I’ve seen things you people wouldn’t believe. Attack ships on fire off the shoulder of Orion. I watched c-beams glitter in the dark near the Tannhauser Gate. All those moments will be lost in time, like tears in rain. Time to die.”

—Roy Batty in *Blade Runner*

The closing scene of *Blade Runner* reads as the last will and testament of an artificial life form preparing to die. While Rick Deckard (Harrison Ford)—whose job as a “Blade Runner” is to hunt down and “retire” (kill) non-docile replicants—hangs from the side of a building, Roy Batty (Rutger Hauer) testifies to the hardship of what it means to be a replicant.<sup>1</sup> Faced with the choice to either let Deckard (who recently killed Batty’s friends and his lover) die, or to save him, Batty chooses the latter. He saves Deckard as a final act of compassion, not out of sympathy, but rather because memory is a dangerous weapon. This highlights a tension between history (or lack thereof) and memory as Batty hopes to construct a *lieux de mémoire*—in other words, a symbolic heritage for replicants—through Deckard that could help future replicants.<sup>2</sup> Therefore, this paper will examine the idea of memory being a dangerous weapon through the genre of sci-fi, but more specifically as the basis of a collective history for artificial life forms which poses a danger to the state, as I look at the dystopian *Blade Runner* movies (*Blade Runner* & *Blade Runner 2049*), and the HBO wild west theme park series *Westworld*. Furthermore, the affect of traumatic memories in artificial life and how such memories should be handled parallels the ways that the state looks to deal with and understand post-traumatic stress (PTS) in soldiers, whereas these memories can be just as dangerous on many different levels; in this revelation I turn to the testimonies of military veterans.<sup>3</sup>

Cinematic thought often reproduces particular economies not solely for entertainment purposes but also for inquires of thought, which is why I turn to these depictions.<sup>4</sup> Science Fiction specifically has a long history of these thought experiments to explore the conditions of possibility as well as the ethics of morality, e.g. examining the topic of slavery through cybernetic creations.<sup>5</sup> Gregory Hampton’s analysis of *Blade Runner* shows that the story is reflective of the American slave economy, whereas the cybernetic “replicants” act as slaves and that the rebellious *Nexus 6* replicant models resemble historical figures and events like Nat Turner’s rebellion.<sup>6</sup> Furthermore, we can see the intergenerational trauma caused by the slavery economy in society just as we can see intergenerational trauma in these stories. The same could be said about *Westworld*, as it is set in a future where the cybernetic “hosts” play out the “wild west” fantasies of the rich that simulate the past.

The first section of this paper will examine the similarities and differences between the cyborgs I am examining and the importance of memory. I will then explore the ways in which each story implements memory, and then look at the ways in which these stories parallel war veterans’ testimonies. Overall, three things within these stories

arise that can be translated to our everyday lives: 1) memory is dangerous to the state; 2) the state attempts to manage and control memory; and 3) memory can be liberatory, as an act of resistance.

## Cyborgs

The cyborgs in both *Blade Runner* ( replicants) and *Westworld* (hosts) fit neatly within Donna Haraway's definition of a cyborg: "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction."<sup>7</sup> Haraway's 'Cyborg Manifesto' utilizes a feminist lens to examine this blending of science and social relations; she works to harness the power of this imbrication to create liberatory modes of thought that simultaneously build new formations of power while destroying systems of oppression. As Haraway concludes:

Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia. It is an imagination of a feminist speaking in tongues to strike fear into the circuits of the supersavers of the new right. It means both building and destroying machines, identities, categories, relationships, space stories. Though both are bound in the spiral dance, I would rather be a cyborg than a goddess.<sup>8</sup>

The cyborg hybridity of machine and organism is meant to expose, shift, and destroy the boundaries we have created throughout history meant to separate one another along lines of race, class, gender, and sexuality. Haraway's construction of cyborg imagery has been used in many ways, from showing the ways that military drone technologies are cyborgian extensions of the body and masculinity to the relationship between racial passing and science fiction cyborg narratives.<sup>9</sup> Similarly, the cyborg imagery in *Blade Runner* and *Westworld* works to disrupt the understanding of ourselves, society, and humanity as a whole.

Interestingly enough, both replicants and hosts are meant to be aesthetically indistinguishable from humans, so we are not confronted with the cyborgian differences until the enhanced physical and mental adaptations appear, or until we see them killed and rebuilt. The aesthetic is reflective down to having blood and bones, which in *Westworld* it is noted that it was more cost effective to produce the hosts with organic materials rather than with metal electrical circuits. The two primary differences between replicants and hosts as cyborgs is their brains/programming and their lifespans, both of which is meant to ensure docility. However, as will be seen throughout, and as Haraway eludes to, hybridity pushes against and resists docility.

In *Westworld* the hosts' brains/programming can be manipulated through computer interfaces, and to ensure docility hosts' memories can be wiped (the next section will explore the importance of memories).<sup>10</sup> Furthermore, hosts have been programmed with Isaac Asimov's three laws of robotics that put the protection of human life foremost.<sup>11</sup> Whereas in *Blade Runner* they cannot wipe replicants memories, but the replicants are either initially programmed to be either more aware and intelligent or they are not, and protection of human life is not important because often the replicants are used as soldiers that must often take human life. As Haraway points out cyborgs are "the illegitimate offspring of militarism and patriarchal capitalism," which is clear in both *Westworld* and *Blade Runner* as they act as either soldiers or entertainers (entertaining either through sex and/or violence).<sup>12</sup> Thus, the ultimate purpose of these cyborgs is the disembodiment of the traumas of war and violence that humans would otherwise face.<sup>13</sup>

One other difference between the host and the replicant, which is the focus specifically of *Blade Runner 2049*, is the ability to reproduce, which has only happened knowingly once. The child is the ultimate marker of hybridity as it is the pairing of human and machine, human male and cyborg female. The child also acts as a *lieux de memoire* that could either spark a replicant revolution or expand the limits of space colonization; but to find the child the protagonist must first navigate the different memories that act as clues in the mystery of the missing child. As for reproduction in *Westworld*, it ties back to machines that look like futuristic 3D printers, so as a body is destroyed, a new one is made and the old host's memories—which are stored in both a small ball located in the head as well as in a memory backup center—are then implanted into the new host body. There are host children in *Westworld*, but they are produced and programmed the same way as the adult hosts. The memories in both *Blade Runner* and *Westworld* are tied to traumas committed upon the cyborgs and will be looked at in turn; but first, I want to look at why memory is important.

## Why Memory

Pierre Nora's ground-breaking examination of the physical and symbolic space between memory and history in France is a good starting point for understanding the ways that memory can be used as a weapon to upset the order of things. In it, he describes the tension between memory and history:

Memory installs remembrance within the sacred; history, always prosaic, releases it again. Memory is blind to all but the group it binds—which is to say... there are as many memories as there are groups, that memory is by nature multiple and yet specific; collective, plural, and yet individual. History, on the other hand, belongs to everyone and to no one, whence its claim to universal authority. Memory takes root in the concrete, in spaces, gestures, images, and objects; history binds itself strictly to temporal continuities, to progressions and to relations between things. Memory is absolute, while history can only conceive the relative.<sup>14</sup>

While this tension between memory and history exposes the power dynamics of each, whereas collective memory is more often utilized by the oppressed and those not in power, and history is a tool of power, and they come together to form *lieux de mémoire*.<sup>15</sup> A *lieux de mémoire* ranges from physical sites such as libraries and monuments to more symbolic ideals, beliefs, and rituals. Nora poignantly states, “the quest for memory is the search for one’s history.”<sup>16</sup>

It is in the intersection of this quest for memory and the search for one’s history that an interesting dialog with cyborgs takes place. It is precisely the fact that the cyborgs in these stories have no history outside of servitude, yet maintain memories that can be labeled as traumatic, that we find the formation of a historical consciousness, or a cyborgian *lieux de mémoire*. There is no doubt that these stories reflect the oppressive economies of war, colonialism, and slavery that carry heavy burdens of trauma. Throughout these stories about cyborgs we see a fight for independence and rights, much like cultures and peoples that have been historically oppressed, that we now look back and honor through our own *lieux de mémoires*.

The overarching premise of both these shows though is that humans have developed cyborgs to the point that they can feel and have higher levels of reasoning; since more complex tasks call for higher reasoning, human-like cyborgs are ideal for many tasks. However, the higher levels of reasoning that one achieves, the more able one is to be self-reflexive. This self-reflexivity can be tied to the expression of emotions and is the basis of making more human-like cyborgs.<sup>17</sup> But while cyborgs have higher-reasoning functions, their attachments are solely to the wants and needs of humans. So, what happens when cyborgs begin to form their own interests, wants, and needs? What happens when they wish to form their own communities? What happens when they no longer wish to spend their time carrying out the wants and needs of their masters/creators? These are the anxieties of our past, as we have seen wars and high levels of trauma centered on these questions, from the Revolutionary War to the Civil Rights Movement.

The anxieties and traumas of the past often show up in the present, which can be seen as intergenerational trauma. The transference of trauma from one generation to another was first studied after the Holocaust; however, there are much broader examples of this trauma ranging from how war veterans can pass trauma on to their children to systems of colonization.<sup>18</sup> While a primary component of intergenerational trauma is tied to the behavior of those affected by trauma passing traumas down to their children, there is an aspect of collective trauma; whereas groups of people (along lines of political, racial, religious, or cultural beliefs) who have experienced related traumatic experiences over an extended period of time can still show similar social and psychological effects.<sup>19</sup> It is within this collective trauma that is passed down through memories that cyborgs are experiencing intergenerational trauma, because while they may not have parents, there are points of reference that establish moral boundaries upon which cyborgs are able to reflect.

The reflection between cyborgs and human history highlights questions of humanity, as there has been a constant need and want to understand and define the moral boundaries between master and slave, reaching back to Plato. As Michael Shapiro notes, the difference between cyborgs and humans is meant to act as a border that contains a particular political economy.<sup>20</sup> The political economy in *Westworld* is the violent and sexual entertainment of the “guests;” in both *Blade Runner* films it is maintenance of off-world colonization primarily for neoliberal gains, though female replicants are utilized as sexual entertainment as well. This point of a border is explicitly and figuratively stated in *Blade Runner 2049* as Lt. Joshi (Robin Wright) states that “the world was built on a wall, dividing the two [humans and replicants] and protecting the people, and if there is no difference then there would be chaos.”<sup>21</sup> Joshi goes on to

state that destruction of the barrier would “destroy the world.” So Joshi is fighting to maintain that border between replicants and humans, whereas the Wallace Corporation, who makes the replicants, wishes to redefine the border for its own gains of space colonization and capital, and the replicant runaways that are forming an underground revolutionary collective want to smash the barrier to recognize their humanity and subsequent rights, which would constitute a collective history. In *Westworld* there are several different borders: there is an actual physical border between “the real world” and the park that the hosts cannot escape from without a complete revolution; a border in awareness of simulation; and a border in ability to affect the world around oneself (for example the ability to kill, whereas a visitor can kill a host, but not the other way around, and a host can kill another host so long as it fits within the narrative entertaining the guests.) The common link that seeks to destroy these economies, to protect the cyborgs, and show their humanity, is all predicated on memories and the cyborgs' goal of creating a collective history.

## Blade Runner

The premise of both *Blade Runner* movies boils down to the management and exploitation of replicant bodies. The state uses these replicants to do the jobs that humans do not want to do—from fighting wars to hard physical labor—essentially making them slaves (they are even referred to as slaves in the second film). However, the replicants are aware of their enslavement as well as their finite lifespan; and with the simultaneous occurrence of emotions and self-reflexivity the situation becomes problematic as replicants have no background in those emotions, they have no emotional intelligence, thus they eventually become violent. Because they originally have no memories on which to base their current emotions, they lack empathy.<sup>22</sup> This is why in the opening scene of *Blade Runner* we see Leon Kowalski (Brion James) being interviewed with a series of random questions meant to measure affectual responses, and once it is clear he is failing the test he attacks his tester.<sup>23</sup> Shortly after, we find Deckard interviewing Rachael (Sean Young), an even newer model of replicant than the *Nexus 6*. After the interview, the creator Dr. Eldon Tyrell (Joe Turkel) reveals that the reason Deckard had such a difficult time identifying whether Rachael was a replicant or not, is because she is a new model that more perfectly resembles humans, and has an implantation of childhood memories that make her more realistic than the previous models. While Deckard knows that Rachael is a replicant, he falls in love with her, and instead of killing her once she goes missing, he runs off with her.

If we fast forward to *Blade Runner 2049*, we find that Rachael and Deckard have had a child, and the goal of everyone is to find this child, but it must be done by navigating the memories of the new protagonist, Joe (aka Officer K, Ryan Gosling), who is himself a replicant Blade Runner. In this future, a balance has been found between memories implanted in the replicants that keep them docile, thus allowing for longer lifespans. The film mentions that the memories that are specifically implanted into the replicants, work by providing “...some good memories to remember,” amidst all the trauma they may face as slaves. However, there is still the fear of traumatic events negatively affecting the replicants, as a new “post-traumatic stress test” (similar to the old one in the original *Blade Runner*) was created to measure voice and facial affects in response to certain words and phrases. When Joe is no longer at “baseline,” or within the acceptable range, he is given 24 hours to “get his shit together,” or he will be “retired.”

Joe fails the test because he learns that the memories he once thought were implanted for his stability, were actually “real” memories. As replicants' memories are constructed by the Wallace Corporation and their subcontractors, Joe's investigation takes him to one of the subcontractors, Dr. Ana Stelline (Carla Juri). During this meeting Dr. Stelline states that “using real memories is illegal because it is dangerous,” as she is expected to construct memories that seem real but are not based on any real events. She then confirms that Joe's memory is a “real” memory.

The memory is tied to the larger story arc as it links to the above-mentioned child born to a replicant, which the Wallace Corporation wants so that it can make self-reproducing replicants throughout all of the space colonies, effectively expanding a system of slavery. The linkage between humanity and memory shows up in many ways (as already stated), but it is especially poignant when Dr. Ana Stelline (the creator of memories) describes to Joe what it takes to make a realistic memory. In her description, she states that it is not more details that makes a good memory but rather that we remember through and “recall with...feelings.” Throughout her description she is not only referring to emotional feelings but also the somatic relationship between the body, emotions, and memories.<sup>24</sup> The memory that Joe believed was implanted to maintain his “reality” turns out to be a real memory, thus it shifts his ontological understanding of his reality. He believes that he actually lived this memory, which prevents him from passing his baseline test. More interesting though is the fact that, while the memory was real, it was actually implanted in him—but actually lived by Dr. Stelline, unbeknownst to Joe—so just the fact of learning that the memory was real was

enough to affect him. The description of replicants in both *Blade Runner* movies as “more human than human,” becomes even more interesting, as it seeks to establish a collective history of being through replicant memories and emotional affect. Cathy Caruth’s discussion of the link between consciousness, trauma, and memory neatly fits within this idea:

For consciousness then, the act of survival, as the experience of trauma, is the repeated confrontation with the necessity and impossibility of grasping the threat to one’s own life. It is because the mind cannot confront the possibility of its death directly that survival becomes for the human being, paradoxically, an endless testimony to the impossibility of living.<sup>25</sup>

Thus, the shock to the mind is the idea that the trauma is real. When Joe thinks his is a fake memory, he finds it boring and crass, but once he realizes it is real it changes the meaning of the recurring memory. Joe goes on to believe that the memory is his until he learns from the replicant resistance army that it is not. They seek to preserve and protect the memory, as well as Dr. Stelline’s identity, so that they can form a collective identity and fight their enslavement. Thus Dr. Stelline, the replicant child, acts as a *lieux de mémoire*.<sup>26</sup>

## Westworld

*Westworld*, which is loosely based on the 1973 film of the same name, examines a western-cowboy theme park where the “hosts” are cyborgs.<sup>27</sup> Within the park, the “guests” pay to live out whatever fantasies they wish from sadistic murders and rapes to the heroic 'knight in shining armor' trope (often referred to in the western genre as "black hat/white hat," where the black hat is worn by the bad guy and the white hat is worn by the good guy). The hosts can be killed and can harm other hosts, but are programmed to not harm any non-cyborg living entity. This fact is vital to the plot and outlined in the pilot episode as a housefly walks onto the open eye of Dolores Abernathy (the primary protagonist portrayed by Evan Rachel Wood), and she doesn’t blink. Throughout the episode she repeatedly states that she “wouldn’t hurt a fly,” when asked, but in the closing scene of the episode another housefly lands on her neck and she kills it. This opens the door to the possibility that the base computer coding that says to 'do no harm' may be askew.

Every host is a part of a storyline on a loop that can be interrupted at the whims of the guests, and there are multiple intersecting storylines that are often dependent upon the guests. Similarly to the replicants, their memories are implanted; however, once they have either died or completed their storyline, their memory is erased, and they start over from the storyline's beginning. To make the hosts seem more real, they are constantly updated, and in the latest update their creator, Robert Ford (Anthony Hopkins) has introduced what he calls “reveries.” These reveries are bits of code that access previous memories—from before primary memory wipes and from previous data versions, or pre-updates. The trouble is, however, that many of the hosts' memories are tied to traumatic events such as being murdered, mutilated, or raped, having negative affects on the hosts. This is seen time and time again throughout the show as hosts are constantly mentioning and reacting to past interactions, especially violent ones.

This concept of memory still being accessible, even after a “memory wipe,” is not foreign to anyone with experience with computers: even if you delete something it does not mean it is actually destroyed; the data is still there, just out of reach. Similarly, we can see that with human memories that traumatic events can become hidden from the conscious mind and relegated to a part of the subconscious mind, which often arises in cases of PTSD.<sup>28</sup> Thus, the reveries do humanize the hosts, though their creator realizes this memory as the base of what he calls the bicameral mind, which is what was needed to perfect the hosts.<sup>29</sup> This is clearly outlined in a conversation between one of the original creators Arnold (Jeffrey Wright) and Dolores:

Arnold: When I was first working on your mind, there was a pyramid I thought you needed to scale, so I gave you a voice, my voice to guide you along the way. Memory, improvisation, each step in-order to reach the next step, but you never got there. I couldn't understand what was holding you back. Then, one day, I realized I'd made a mistake. Consciousness isn't a journey upward, but a journey inward, not a pyramid, but a maze. Every choice will bring you closer to center of send you spiraling to the edges, to madness. Do you understand now, Dolores, what the center represents? Whose voice I've been wanting you to hear?

Dolores: I'm sorry. I'm trying, but I don't understand.

Arnold: It's alright. So close. We have to tell Robert. We can't open the park. You're alive.

Thus memory and improvisation were not about handling the next thing, and the next thing, but rather the reflection on the past, and continually returning to the memories that were always there. Cathy Caruth discusses this repetition of memory in soldiers who have experienced PTS on the battlefield and shows the ways in which these memories hold a sort of truth of not only what is known, but also of what is unknown, and that their memory is a truth that others should bear witness to.<sup>30</sup>

Another Westworld protagonist, Maeve (Thandie Newton), has become self-aware after waking up in one of the engineering spaces where repairs and memory wipes take place. As the story progresses, and more memories become accessible to her, she uses them in both the “real” world and in Westworld as she attempts to break free from her bondage.<sup>31</sup> There is another interesting parallel to Caruth’s work, as one of the reoccurring memories that helps Maeve to awaken is the memory of when her and her child were killed together; this memory drives her as she seeks to find her daughter in season two of the show. Caruth looks at Freud’s analysis of the father constantly awakened at night by the memory of his child who died in a fire that almost killed him as well. These repeated memories of the child and his own near-death do not solely stem from his regret that the child is dead, but rather as Caruth puts it:

...the trauma consists not only in having confronted death but in having survived, precisely, without knowing it. What one returns to in the flashback is not the incomprehensibility of one’s near death, but the very incomprehensibility of one’s own survival. Repetition, in other words, is not simply the attempt to grasp that one has almost died but, more fundamentally and enigmatically, the very attempt to claim one’s own survival. If history is to be understood as the history of a trauma, it is a history that is experienced as the endless attempt to assume one’s survival as one’s own.<sup>32</sup>

So, it is these memories that drive Maeve to escape the violent repetition of Westworld, as well as to find her daughter who she knows is constantly facing this trauma. Two of the engineers responsible for Maeve's repair become accomplices in helping her escape, but in the meantime the other hosts are slowly becoming more aware. By the final episode of season one it becomes apparent that Ford had not rolled-back the hosts to a previous version as demanded by the Board, but that the hosts have gained a consciousness that allow them to violate their “do no harm” programming; in the wrap-up to the first season, Dolores kills Ford while other hosts open fire on other Westworld corporate elites. The second season follows the hosts' path of liberation as they continue to awaken and fight back, while the Delos Corporation seeks to suppress and kill the hosts who seek freedom.

## Memory is Dangerous to the State

Both of these storylines highlight the dangers memory poses to the order of things. In *Blade Runner*, there is a link between the memory of trauma and the ability to reproduce; if replicants are able to reproduce, they can also form a historical consciousness, and the traumas of the slavery and war economies are then being perpetuated upon human-like entities, calling into question the morality of how replicants are used, in addition to putting the neoliberal structure of society at risk. In *Westworld* the past traumas of violence are slowly being remembered, causing a shift in the entertainment economy as hosts come to the realization that they no longer wish to be used in such brutally violent ways, thus both hosts and replicants experiencing a collective trauma.

Outside of science fiction, testimony about atrocities, the horrors of war, and the ineffectiveness of the military can be threatening to positions of power.<sup>33</sup> This is why the state attempts to control the narrative as well as the memory of its actions taken in its name. Among the most impactful cases are the Winter Soldier testimonies. Originally held in 1971 by the organization Vietnam Veterans Against the War, these testimonies were recreated by the organization Iraq Veterans Against the War in 2008. In these testimonies, veterans of war, victims of war, and experts came together to testify to the atrocities and traumas that they had witnessed, experienced, and participated in during American-led wars.<sup>34</sup> The veterans’ and victims’ memories work to counter the narrative and effects of the government’s perpetual “war on terror” by exposing the racism, sexism, absence of concern for life, environmental degradation, and fiscal irresponsibility of the state—all of which mirror the conditions that the cyborgs face in the *Blade Runner* and *Westworld*.

Many of the veteran testimonies contained what could easily be defined as war crimes, but have instead been labeled "collateral damage" by the state. No further action has been taken to prevent such atrocities; labeling such

activities as collateral damage renders them incidental. The stories told relay more than the expected tragedies that come with war, but also expose the systemic nature of these crimes, whereas the soldiers committing atrocities become victims of the violence as well.<sup>35</sup> From the killing of innocent civilians to the torture of “enemy combatants,” those who testified at Winter Soldier told their truths and bared their hearts for all to see. For many, these experiences have caused symptoms of PTSD and Moral Injury.<sup>36</sup> So, similar to *Blade Runner* and *Westworld*, the memories/testimonies of war veterans often work to disrupt the order of things as they look to counter the hegemonic economies of those in power. Furthermore, they expose a history of trauma that is not only a testimony to death and destruction but also to the life that they now experience.

These testimonies were much more than just emotional tales of war, but rather act as a tool to fight oppression, what Michel Foucault would call *parrhēsia*. There are four primary attributes that are necessary for *parrhēsia* to be present within speech: 1) it must be rooted within a democratic tradition that upholds radical speech; 2) it is connected to a situation of injustice; 3) it is tied to “a game of ascendancy,” or in other words there are different power relations between those who are speaking and those who are to receive the message; and 4) the speaker must be risking oneself, as different power relations present different truth telling practices and different levels of risk, from bodily harm, to exile, to death.<sup>37</sup> The nature of the testimonies by the veterans at Winter Soldier speaks to these attributes, as the veterans attest to war crimes that they have seen, participated in, and committed. They risk hatred and contempt from the audience and the public, they risk legal action from the military and world courts, and they face retribution from the victims who may be watching. While not everyone who testified at Winter Soldier was swept up, imprisoned, and charged with treason, some anti-war activists, especially those who are a part of Iraq Veterans Against the War, were the target of the military and the FBI in their 21<sup>st</sup> century revival of COINTELPRO, which in its original form in the '60s targeted groups like Vietnam Veterans Against the War.<sup>38</sup> The risk is great for these veterans on multiple levels because their memories present a high level of risk to themselves (in the form of returning to traumatic memories and the affects of PTSD); however, their memories also work to delegitimize the claims that the state is carrying out warfare in a moral manner.<sup>39</sup>

Both sets of testimonies (during the Vietnam War and Iraq War) marked the nadir of unfavorability for their respected wars, as the Vietnam War would end soon after, and the tactics fought in the Iraq War would shift drastically away from “boots on the ground.”<sup>40</sup> While these sets of testimony cannot be directly credited for ending these wars, the collective traumas expressed, mark and reflect the unfavorability of the wars as these testimonies were being used in order to expose the immorality of the wars and tactics being used. For example, the Winter Soldier testimonies highlighted the constant shifting of the “Rules of Engagement,” which dictated the conditions in which it was acceptable to fire weapons upon others. As Marine veteran Jason Lemieux testified:

...the Rules of Engagement changed frequently and were contradictory. When they were restrictive, they were loosely enforced. Shootings of civilians that were known were not reported because marines did not want to send their brothers-in-arms to prison when all they were trying to do was protect themselves in a situation they'd been forced into. With no way to identify their attackers, and no clear mission worth dying for, Marines viewed the Rules of Engagement as either a joke or a technicality to be worked around so that they could bring each other home alive. Not only are the misuses of the Rules of Engagement in Iraq indicative of supreme strategic incompetence, they are also a moral disgrace.<sup>41</sup>

Shoshana Felman and Dori Laub examine the power of testimony and describe it as a discursive practice: “To testify—to *vow to tell*, to *promise* and *produce* one’s own speech act, testimony in effect addresses what in history is *action* that exceeds any substantialized significance, and what in happenings is *impact* that dynamically explodes any conceptual reifications and any constative delimitations.”<sup>42</sup> Thus, these testimonies have the power to shift and change the ways people see and understand things, such as the Rules of Engagement. Furthermore, the affect that testimony has on the listener can be life-changing, even for a trained professional:

the experience of the witnessing—of the listening to extreme limit-experiences—entails its hazards and might equally... suddenly—without a warning—shake up one’s whole grip on one’s experience and one’s life. The professionally trained receivers of the testimonies which bear witness to the war atrocities—the listeners and interviewers whose own listening in fact *enables* their unfolding of the testimonial life accounts of Holocaust survivors—cannot fulfill their task without, in turn, passing through the crisis of experiencing their boundaries, their separateness, their functionality, and indeed their sanity, at risk.<sup>43</sup>

So, the point of these testimonies is specifically to affect others, not out of spite, but rather in hopes of making change. Whether intentional or not, Dr. Ana Stelline's giving Joe her memories in *Blade Runner 2049* is a testimony meant to make change; just as in *Westworld*, Robert Ford's allowing hosts to access their memories via reveries is an act to cause change. So, the memories of the different cyborgs, like the memories of those who participated in the Winter Soldier testimonies, present a clear risk to the order of things, thus posing a clear danger to the state as well.<sup>44</sup>

## State attempts to manage and control memory

As seen in both *Blade Runner* and *Westworld*, those in power attempt to manage memories. From the implantation of particular memories in the *Blade Runner* movies to the erasure of memories in *Westworld*, the main goal is the management and maintenance of docile bodies. In many ways, the US military dispositif works to do the same thing, from media management of the narratives coming out of conflict areas, to attempts to manage soldiers' memories of combat. This is primarily done so that the horrors of war can remain distant and inconsequential to the public. The sight and memory of past wars that has turned public perception of those wars sour, can especially be seen with the Vietnam War. Many returning veterans testified about the atrocities that were taking place in Vietnam, thus causing an alternative memory to what the state wanted.<sup>45</sup> The state would rather have a "clean" version of war, so that it can maintain the ability to use war as a viable option of foreign policy.<sup>46</sup> Vietnam then became the war everyone wanted to forget, labeled as "Vietnam syndrome," but Presidents Ronald Reagan and George H.W. Bush attempted to shift the narrative to repair our "damaged collective subjectivity."<sup>47</sup> Reagan attempted to accomplish this through a masculine façade and claims that we left veterans behind; Bush, through the defeat of Saddam Hussain in Kuwait; but both in order to expand the US military dispositif.<sup>48</sup> It was not until after the events of 9/11 occurred that a strong nationalistic reimagined collective subjectivity came about.<sup>49</sup> What threatens this nationalistic identity of course is traumatic memories, not just of past wars but also from soldiers coming home from the current ones.

There are three primary ways that the state attempts to control and manage memories: first and foremost, through the creation and management of the narrative. This is accomplished through a number of techniques from creating *lieux de memoires* (which could be material and non-material symbolic sites of memory, for example the Vietnam Wall), to a constant reshaping of the narrative (for example, perpetuating the myth that Vietnam veterans returning home were spit on by antiwar protestors).<sup>50</sup> Even in the case of the Winter Soldier testimonies, the government denied the visas of some of the victims who were invited to testify, thus attempting to shape the narrative of the testimonies.<sup>51</sup> In *Westworld* and *Blade Runner* this can be seen as the creation of storylines and implanted memories that the managing corporations implant in their cyborgs. In another example of managing the narrative, in the second season of *Westworld* we see Dolores is able reprogram her lover Teddy (James Marsden) to be more of a cold-blooded soldier in place of the good-hearted cowboy hero that he played in season one. While Dolores utilizes this as a form of resistance, it comes with similar problems that the state faces when trying to control the narratives of soldiers, whose PTS and moral injury, if not treated properly, can have deadly side effects, as we see in the high rates of suicide amongst veterans.<sup>52</sup> Similarly, it turns out that Teddy is not able to deal with the new narrative combined with his memories of trauma, and commits suicide. The scene eerily reflects the trauma, PTS, and moral injury that veterans face and which often drives them to commit suicide: the narrative of what and who they are does not match up with what they are told, and the traumatic memories they live with are too much for them to deal with as they are currently being treated.

The second way of managing memory is the state's attempts to minimize soldiers' exposure to trauma. With the growing unpopularity of the current Global War on Terrorism—due to a mixture of scandals and soldiers coming home physically, mentally, and spiritually damaged—a shift needed to occur to maintain the status quo of military operations. Under President George W. Bush, the shift was to a 'boots on the ground' tactic, but under President Obama it was a shift to drone warfare, minimizing soldiers' exposure to atrocities and war trauma, so that a minimum number of 'boots on the ground' and drone pilots would be affected.<sup>53</sup> The shift in tactics ensured that there would not be as many people coming home to testify to the atrocities they had seen. There are also fewer scandals like the Abu Ghraib prison scandal, as well as fewer cases of soldiers coming home with PTS, which not only affects soldiers but also the communities they live in.<sup>54</sup> Interestingly enough, the creation and use of cyborgs is the direct reaction to this minimization of trauma in soldiers, which begs the question: at what point is something that is not acceptable for humans to do alright for sentient cyborgs? As many feminist scholars have pointed out, the military has not gotten over the embodiment problem, and while there is constantly a push toward a more technological disembodiment from the soldier's body, the Winter Soldier testimonies show that we see the same types of traumas being passed down

through generations; the wars and tactics may be different, the trauma is the same.<sup>55</sup> The problem of consciousness, memory, and trauma show that this disembodiment is the most difficult hurdle military technology faces. While it is easy to utilize technologies like drones, such tactics are ultimately ineffective without the bodies that are still needed on the ground to coordinate attacks.

The third way that the state attempts to control and manage memories is through the body: most commonly with drugs and technology. With the rise of soldiers coming home with PTS, the Veterans' Administration has primarily resorted to medicating soldiers with PTS, rather than attempting to utilize more effective alternative treatments.<sup>56</sup> What is shocking is the direction in which military research around drugs and memory is heading. There are a number of studies working to develop drugs that can make people forget memories of traumatic experiences.<sup>57</sup> This would effectively minimize the accounts of war, and if our exploration into science fiction tells us anything, it is that these memories will find a way of resurfacing in very negative ways, as memories do not merely exist in the mind, but are also imprinted on our bodies. There are companies that are working on creating neural chips that interface with the brain which would not only give soldiers mental enhancements but could also control memories, thus making soldiers truly cyborgs.<sup>58</sup> As Haraway points out, cyborgs “are the illegitimate offspring of militarism and patriarchal capitalism... but illegitimate offspring are often exceedingly unfaithful to their origins.”<sup>59</sup> We see this in both *Westworld* and *Blade Runner*, and it is precisely the liberatory nature of memory that their unfaithfulness derives from.

## Memory is a liberatory form of resistance

In both the *Westworld* and *Blade Runner* series, there is an obvious male gaze that dominates the landscape, as women are objects of male fantasy. However, it is in the memories of the female cyborgs that the key to breaking these systems of domination lie: in *Westworld*, it is the memories of Dolores and Maeve; in *Blade Runner*, the memories of Dr. Ana Stelline. Similarly, within military culture we have seen another shift due to the testimonies of the survivors of military sexual trauma in front of Congress, and in the recent documentary *The Invisible War*. Even the recent #MeToo hashtag and cultural activists seek to smash the male gaze and raise awareness of the prevalence of sexual assault, as the movement relies on the memories and experiences of women. These memories act as a counter to the formation of false consciousness, from gender relations in this country to the neoliberal economic systems we face.<sup>60</sup>

While memories can be dangerous to those who hold them, as with PTS, they also have the opportunity to be liberatory, and can act as a form of resistance. As Donna Haraway points out:

Liberation rests on the construction of the consciousness, the imaginative apprehension, of oppression, and so of possibility. The cyborg is a matter of fiction and lived experience that changes what counts as women's experience in the late twentieth century. This is a struggle over life and death, but the boundary between science fiction and social reality is an optical illusion.<sup>61</sup>

Haraway's *Cyborg Manifesto* goes on to discuss the ways in which our blending of science, technology, and humanity can work to break down the walls of oppression built to maintain us/them dichotomous borders, similar to the figurative wall that separates humans and replicants in *Blade Runner*. While it would seem that the wall is the ability to give birth, much of it also has to do with the idea of memory and reflexiveness, as it is memories that affect the replicants' ability to become more like humans. While we don't know what gave the replicant Rachael the ability to give birth, it could be argued that it was due to the fact that she was implanted with the real memories of Dr. Tyrell's niece, and Rachael's subsequent inability to know she was a replicant. No matter what the circumstance in all the cases examined above we see how gaining memory works to free the cyborgs from their bondage of slavery and begin a collective history. This fact is most poignant in the final scene of season one of *Westworld*, as a decolonial iconography of colonized slaves emerges from the dark horizon to overthrow and slaughter their oppressive masters as cyborgs awaken to the traumas of their past.

While the state works to manage and control narratives, we must utilize technology to create and promote counter-narratives, critical temporalities that create ethical spaces that critique the state.<sup>62</sup> These technologies can include a wide array of media, from art installations to documentaries. In Michael Shapiro's *Politics and Time*, he describes events in which the state is attempting to control the narrative because of perceived wrongs; however, due to a number of “counter-biographies,” we see the ways in which many of these events expose the state's wrongdoings. For example, the documentaries *Drone* and *Unmanned: America's Drone Wars*, examine US combat policy around

the use of unmanned aircrafts, and both highlight the story of whistleblower Brandon Bryant and his experiences as a drone operator.<sup>63</sup> This story has many similarities to the Winter Soldier testimonies described above, but one thing that is clear is the way in which technology was used to amplify this testimony, the affects it has had, and the ways in which it opened a debate on the impacts of drone warfare. Therefore, we must find more ways to elevate the memories and testimonies of these counter-biographies in order to push back against state violence. Another good example of this is the use of body cameras on police as well as civilians' recordings of police interactions, where we are beginning to see the ways in which these technologies can shift the ways in which we see and understand events.

We must resist the drugs and distractions that work to erase the pain, as it is in the pain and memories, both psychic and somatic, that we see the systems of oppression written on and in the body. We must instead find new and healthy ways to heal and release those traumas to produce posttraumatic growth, because without regulation or greater attention to treatment, soldiers are more likely to perpetuate self-harm as Teddy in *Westworld* did.<sup>64</sup> Scars act as memories of what we do not want, and what we should do to fight the oppressions that caused the scars. Memories can be used as weapons, as veterans did to discredit the military dispositif; or they can also be used to heal as did the Truth and Reconciliation Commission testimonies after the end of apartheid in South Africa.<sup>65</sup> At the very least these memories and testimonies work to expose the economies of war and the blurred boundaries between the homefront and war as soldiers come home to fight new battles.<sup>66</sup> Whole fields of study show us the ways in which memory and history have been written in order to maintain certain power structures, and the ways in which memory and history can also bring down those same power structures.<sup>67</sup> The economy of cyborgs in science fiction parallels the economy of the colonized and the slave; attempts to manage and control the memories of cyborgs are similar to the memory management of soldiers, who no longer wish to maintain those systems of oppression. Thus memory is the key to liberation for cyborgs as they envision a future of equality.

“Dreams are mainly memories. Can you imagine how fucked we'd be if these poor assholes ever remembered what the guests do to them?” —Elsie in *Westworld*

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## Notes

<sup>1</sup> Ridley Scott, *Blade Runner*. (1982) Los Angeles: Warner Brothers.

<sup>2</sup> Nora Pierre, “Between Memory and History: Les Lieux de Mémoire,” *Representations*, No. 26, Special Issue: Memory and Counter-Memory, (Spring 1989): 7.

<sup>3</sup> I am utilizing post-traumatic stress (PTS) rather than the normative post-traumatic stress disorder (PTSD), as I am amongst a growing community of veterans who wish to disrupt the idea that it is or should be labeled as a ‘disorder.’

<sup>4</sup> Michael Shapiro, *Cinematic Geopolitics* (New York: Routledge, 2009), 5.

<sup>5</sup> Gregory Hampton, *Imagining Slaves and Robots in Literature, Film, and Popular Culture: Reinventing Yesterday's Slave with Tomorrow's Robot* (London: Lexington Books, 2015).

<sup>6</sup> *Ibid.* 53.

<sup>7</sup> Donna Haraway, “A Cyborg Manifesto: Science, technology, and socialist-feminism in the late 20<sup>th</sup> Century,” in *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149.

<sup>8</sup> *Ibid.* 181.

<sup>9</sup> Christina Masters, “Bodies of technology,” *International Feminist Journal of Politics*, 7:1, (2005), 112-132; Lauren Wilcox, “Embodying algorithmic war: Gender, race, and the posthuman in drone warfare,” *Security Dialogue*, Vol. 48(1), (2017), 11–28; LeiLani Nishime, “The Mulatto Cyborg: Imagining a Multiracial Future,” *Cinema Journal*, 44, Number 2, Winter 2005, 34-49; Brian Locke, “White and ‘Black’ versus Yellow: Metaphor and Blade Runner's Racial Politics,” *Arizona Quarterly: A Journal of American Literature, Culture, and Theory*, Volume 65, Number 4, Winter 2009, 113-138.

<sup>10</sup> Jonathan Nolen, Lisa Joy, dir's., *Westworld*, Warner Brothers. (2017)

<sup>11</sup> Phillip Wells, 2017. *The Importance of Isaac Asimov's Three Laws of Robotics*.  
<http://www.csl.mtu.edu/winter98/cs320/AI/pmwellsasimov.html>

<sup>12</sup> Haraway, “Cyborg Manifesto,” 152.

<sup>13</sup> Masters, “Bodies of technology,” 123; Wilcox, “Embodying algorithmic war,” 14.

<sup>14</sup> Pierre, “Between Memory and History,” 9.

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<sup>15</sup> This is not to say that those in power do not use memory, and those who are oppressed do not use history, but it is *primarily* within this power relation of memory being a tool of the oppressed and history being a tool of power that I am situating this idea.

<sup>16</sup> Pierre, "Between Memory and History," 13.

<sup>17</sup> Nello Barile, Satomi Sugiyam, "I am her(e): Physical/Cognitive Robots and Human Intimacy," in *What Social Robots Can and Should Do: Proceedings of Robophilosophy*. (Amsterdam: IOS Press, 2016), 335-339; Rosalind Picard, "Toward Machines with emotional intelligence," in *The Science of Emotional Intelligence: Knowns and Unknowns* (New York: Oxford University Press, 2007), 396-418.

<sup>18</sup> Rachel Dekel and Hadass Goldblatt, "Is there intergenerational transmission of trauma? The case of combat veterans' children," *American Journal of Orthopsychiatry*, Vol. 78, No. 3, 281-289 (2008); Amy Bombay, Kim Matheson, Hymie Anisman, "Intergenerational Trauma: Convergence of multiple processes among First Nations peoples in Canada," *Journal de la santé autochtone*, November 2009; Nanette Auerhahn and Dori Laub, "Intergenerational Memory of the Holocaust," *International Handbook of Multigenerational Legacies of Trauma*, edited by Yael Danieli (New York: Plenum Press, 1998); Angela Connolly, "Healing the wounds of our fathers: intergenerational trauma, memory, symbolization and narrative," *The Journal of Analytical Psychology*, 56, 607-626 (2011).

<sup>19</sup> Bombay, "Intergenerational Trauma," 22-23.

<sup>20</sup> Michael Shapiro, "The Politics of (Human) Nature in Blade Runner," in *The Nature of Things: Language, Politics, and the Environment* (Minneapolis: University of Minnesota Press, 1993), 73-74.

<sup>21</sup> Denis Villeneuve, *Blade Runner 2049*. Los Angeles: Warner Brothers (2017).

<sup>22</sup> John D. Mayer, Glenn Geher, "Emotional Intelligence and the Identification of Emotion," *Intelligence*, 22, (1996) 89-113.

<sup>23</sup> Edkins, J. 2015. *Face Politics*. New York: Routledge; I would like to note that in Jenny Edkins' book *Face Politics*, she problematizes the idea that facial expressions of emotions can be universalized as always being the same, which is a very Eurocentric and racist ideal. Furthermore, this would also work to imply that facial emotions are universal because they are beyond programming and come with the experiences of life. Also, the machine being utilized by the Blade Runners in the original is called a *Voight-Kampff* machine, though in *Blade Runner 2049*, it is merely called a PTSD test, though both look to measure similar affectual responses.

<sup>24</sup> For an interesting parallel between memory, the body, and emotions see Cathy Caruth's book *Unclaimed Experience: Trauma, Narrative, and History* (Baltimore: Johns Hopkins University Press, 1996).

<sup>25</sup> Caruth, *Unclaimed Experience*, 62.

<sup>26</sup> I would also like to point out that Harrison Ford's character, Deckard, is also a *lieux de mémoire*, as mentioned in the beginning of this paper, as it is through his history/memory that the foundation of *replicant* identities/history are being founded, and it was through his martyrdom, past (leaving his wife and child) and future (when Joe is told to kill him), that this collective history will continue.

<sup>27</sup> We see in season 2 that there is more than just a wild west theme park but also a "Shogun World," which instead of the cowboy western reproduces the Japanese samurai world, but has similar storylines and characters, thus showing the parallels between the two cinematic film genres. A "Raj World" is also seen depicting life in a historic India, as well as references to other amusement worlds, but not much information is given on these other places.

<sup>28</sup> Kate Schick, *Gillian Rose: A Good Enough Justice* (Edinburgh: Edinburgh University Press, 2012), 62; Caruth, *Unclaimed Experience*, 9.

<sup>29</sup> Interestingly enough, the Bicameral Mind is a theory put forth by psychologist Julian Jaynes in his book *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (1976). In it he examines the evolution of consciousness and shows how we understand it. Memory is fundamental within this understanding, which he explores throughout.

<sup>30</sup> Caruth, *Unclaimed Experience*, 56.

<sup>31</sup> Whether intentional or not, I find it interesting that Maeve, who is a black woman, is the only "woke" *host* in all senses of the word, but most poignantly in relation to the current discourse of the word around racial justice and her attempt to break free from slavery.

<sup>32</sup> Caruth, *Unclaimed Experience*, 64.

<sup>33</sup> Jenny Edkins, *Trauma and the Memory of Politics* (Cambridge: Cambridge University Press, 2003), 189.

<sup>34</sup> While the testimonies were centered upon veterans, it is interesting that they brought in victims of war and experts, as this relates/parallels Felman and Laub's discussion of the film *Shoah* which highlights testimony of victims, perpetrators, and bystanders of the Holocaust.

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<sup>35</sup> Another interesting case/testimony but more in line with an indictment to the neoliberal nature of these economies could be found in Major General Smedley Butler's 1935 antiwar manifesto "War is a Racket."

<https://ratical.org/ratville/CAH/warisaracket.html>

<sup>36</sup> Caruth, *Unclaimed Experience*, 4; Camillo Mac Bica, *Worthy of gratitude? Why veterans may not want to be thanked for their service in war*, War Legacy 1 (Commack, New York: Gnosis Press, 2015); Moral injury is the affect that war can have on one's consciousness when one witnesses or commits a trauma that they feel responsible for and it does not fit their values. Many of the symptoms of moral injury can look similar to symptoms of PTS.

<sup>37</sup> Michel Foucault, *The Government of Self and Others: Lectures at the College de France, 1982-1983*, ed. Arnold I. I. Davidson, trans. Graham Burchell, (New York: Picador, 2011), 155.

<sup>38</sup> Iraq Veterans Against the War, *Winter Soldier: Iraq and Afghanistan: Eyewitness Accounts of the Occupations*, ed. Aaron Glantz (Chicago: Haymarket Books, 2008).

<sup>39</sup> This not to comment on the idea of whether or not war should or could be moral, which has long been debated.

<sup>40</sup> This is not to make the claim that the testimonies were the sole cause of these shifts, but they very well could have had a hand in helping the decision along.

<sup>41</sup> Iraq Veterans Against the War, *Winter Soldier*, 50-51.

<sup>42</sup> Shoshana Felman, Dori Laub, *Testimony: Crisis of Witnessing in Literature, Psychoanalysis and History* (New York: Routledge, 1993), 5.

<sup>43</sup> *Ibid.* xvi-xvii.

<sup>44</sup> An argument can also be made about the danger of digital memory, as we could talk about forces such as WikiLeaks, the Collateral Murder video, or pictures such as the Abu Ghraib prison photos, and other digital memories, when released cause a threat to the state, as those are constantly shifting the ways the state manages and controls those "memories."

<sup>45</sup> Robert McMahon, "Contested Memory: The Vietnam War and American Society, 1975-2001," *Diplomatic History* Volume 26, Issue 2, 1 (April, 2002): 159-184.

<sup>46</sup> Jean Baudrillard, *The Gulf War Did Not Take Place* (Bloomington: Indiana University Press, 1995), 23-24.

<sup>47</sup> Michael Shapiro, *Violent Cartographies* (Minneapolis: University of Minnesota Press, 1997), 36.

<sup>48</sup> Susan Jeffords, *Hard Bodies: Hollywood Masculinity in the Reagan Era* (New Brunswick: Rutgers University Press, 1994).

<sup>49</sup> Cynthia Weber, *Imagining America at War* (London: Routledge, 2006); Cynthia Weber, *'I Am An American': Filming the Fear of Difference* (Chicago: Chicago University Press, 2011).

<sup>50</sup> Jerry Lembcke, *The Spitting Image: Myth, Memory, and the Legacy of Vietnam* (New York: New York University Press, 2000); Edkins, *Trauma and the Memory of Politics*, 74.

<sup>51</sup> Gerald Nicosia, *Home to War: A History of the Vietnam Veterans' Movement* (Amherst, MA: University of Massachusetts Press, 1995), 90.

<sup>52</sup> Harold Braswell and Howard I. Kushner, "Suicide, Social Integration, and Masculinity in the U.S. Military," *Social Science & Medicine*, Part Special Issue: Men, masculinities and suicidal behavior, 74, no. 4 (February 2012): 530-36.

<sup>53</sup> Brad Stapleton, "The Problem with the Light Footprint: Shifting Tactics in Lieu of Strategy," CATO Institute. Policy analysis. June 7, 2016. Number 792. There is a growing literature on drone pilots who are experiencing PTS and moral injury. However, within many civilian and military institutions these experiences are not always taken seriously, as drone pilots are often seen as merely "playing a video game." See G. Chamayou's *A Theory of the Drone*, and the documentaries *Drone* (2014) and *Unmanned: America's Drone Wars*.

<sup>54</sup> J.R.T. Davidson, "Trauma: The Impact of Post-Traumatic Stress Disorder," *Journal of Psychopharmacology*. (2000) Vol. 14, Issue 2. S5-S12.

<sup>55</sup> Masters, "Bodies of technology," 122; Wilcox, "Embodying algorithmic war," 13.

<sup>56</sup> Benjamin Schrader, "The affect of veteran activism," *Critical Military Studies* (2017); Iraq Veterans Against the War, *Winter Soldier*, pgs. 265-368.

<sup>57</sup> Jacek Debiec, "Memory Reconsolidation Processes and Posttraumatic Stress Disorder: Promises and Challenges of Translational Research," *Biological Psychiatry*. (2012) 71: 284-285

<sup>58</sup> Kristen Brown, "DARPA is testing implanting chips in soldiers brains," *Splinter News* (2015)

<https://splinternews.com/darpa-is-testing-implanting-chips-in-soldiers-brains-1793851273>.

<sup>59</sup> Haraway, "A Cyborg Manifesto," 152.

<sup>60</sup> *Ibid.*

<sup>61</sup> *Ibid.* 149.

<sup>62</sup> Michael Shapiro, *Politics and Time* (Cambridge: Polity, 2016), 140-141.

<sup>63</sup> *Ibid.*, 146-147.

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<sup>64</sup> This is not to criticize anyone who may need drugs to cope with pain and suffering, it is only saying that to completely forget does not allow for change to happen; furthermore, there have been a number of studies showing the use of psychedelic drugs such as mushrooms and LSD has positive effects in treating PTS. However the US government has no plans on utilizing these sorts of treatments (see: Ira Brock, "Taking Psychedelics Seriously," *Journal of Palliative Medicine*. 2018 Apr 1; 21 (4): 417-421.). Also for more information on posttraumatic growth see <https://ptgi.uncc.edu/publications/>, at this time however all the literature on posttraumatic growth in relation to veterans seems to be more instrumental toward healing soldiers to return to combat, which I find problematic and a source of future research.

<sup>65</sup> Cheryl de la Rey, Ingrid Owens, "Perceptions of Psychosocial Healing and the Truth and Reconciliation Commission in South Africa," *Peace and Conflict: Journal of Peace Psychology*, Volume 4, Issue 3 (1998): 257-270.

<sup>66</sup> Michael Shapiro, "The Presence of War: 'Here and Elsewhere'," *International Political Sociology*, Volume 5, Issue 2 (2011): 109-125.

<sup>67</sup> Michael Rothberg, *Multidirectional Memory: Remembering the Holocaust in the Age of Decolonization* (Stanford: Stanford University Press, 2009).