# Blake – Cyborg

Notes\*\*

* I would keep some of this history storytelling ethos
* shift it to the modern space race - the new war is no longer between "public" states.
* Capitalism has surpassed the state. (this gives you cool a2 Ks btw) the new space war is between privatized companies and appropriating space for more capital.
* Space is seen as this infinite and exploitable thing, perfect for capital. I would weave this modern space war with modern tech - Capitalism tries to exploit infinitely – there is no end point to cap. Space is a fantasy of infinite resources
* old space war = old tech. new space war coincides with AI and transhumanism – privatized space exploration and competition is capitalist
* exploiting the infinitude of space coincides with this transhumanist desire very well –
* its this Elon fantasy of becoming super humans
* Add debility and rehabilitation of disability –
* Its not about state – the circuits of capital has surpassed soverignty where capital is this transcendt thing that flows between states - The state is a tool for privatized capitalism. Its not powerful enough to be independent – good vs set col bc power gets reconceptualized as a monopoly or extension of capital – it cant just be decol since the state isnt the prob its cap
* New space suits developed by Space X shows transhumanist tools being added
* Two types oc Cyborg 1. Is cybernetic organism which is bad 2. Expanding relational modes of being – people implant these things on their bodies as a 6th sense to expand their world and experiencing the world and register info – imagine being able to communicate under water with sonar – we want to embrace a relational cyborg instead of a way of adding to ourselves to be more human

## AFF

### Experiment 1 is The Cyborg

#### Our story starts at Rockland Institute in 1956, where Manfred Clynes met Nathan Kline, the director, where they both worked. Their meeting revealed a common interest in neurochemical antidepressants leading to horrific, nonconsensual human trials. Throughout the 60’s, Rockland was reported for patient abuse, assault, malnourishment, and torture. While these atrocities didn’t happen according to Kline and Clynes’ direction, they did happen on their watch, and the culture of forcibly testing institutionalized patients was widespread in the U.S.[[1]](#footnote-1)

#### In September 1960, Clynes introduced the word “cyborg” in his newest publication “Cyborgs and Space”. It’s appearance in the journal, *Astronautics* marked the new era of cyber-eugenics. According to Clynes and Kline[[2]](#footnote-2) "The purpose of the Cyborg, as well as his own homeostatic systems, is to provide an organizational system in which such robot-like problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel," Clynes and Kline wrote.” The word, commonly understood as a unification of man and machine didn’t mean less but more than human.

#### In the late 1960s, Clynes completed the Computer of Average Transients representing the first form of communication between machine and organic brain. A first step in the creation of the hybrid that would be able to withstand space travel. Madrigal writes[[3]](#footnote-3)…

They offered up this idea in the context of MAN IN SPACE, the grand scientific project of the 60s. "Space travel challenges mankind not only technologically but spiritually, in that it invites man to take an active part in his own biological evolution," the Astronautics paper began. "Scientific advances of the future may thus be utilized to permit man's existence in environments which differ radically from those provided by nature as we know it." They criticized the idea of creating human-ready environments up in space, arguing humans should adapt themselves to extraterrestrial conditions, whatever those might be. It's important to remember that they wrote all this stuff before Yuri Gagarin became the first man to travel in space. Quite honestly, we had no idea what space would do to our bodies over the long-haul, but space scientists were not shy about hazarding and testing hypotheses. In the decade after Clynes paper, NASA scientists would publish hundreds of paper about the human body's physiology. New biological data poured in from the space program. The literature was a non- medical kind of applied physiology and it seemed largely concerned with how the healthy body handled extremes. Papers like "Human Tolerance to Rapidly Applied Accelerations: A Summary of the Literature" were the norm. Under those circumstances, the body's natural control systems became fascinating and bizarre because you find where they fail. Sure, you can maintain consciousness standing still or running, but how about being hurtled through the atmosphere at 1,000 miles per hour? So NASA came up with answers. The human body could take 45 Gs for about 0.044 seconds without being debilitated. You could build a curve of G-force and time and figure out the body's limits, when it lost control. But Clynes was never interested solely in helping the body maintain stasis. His work was more expansive and concentrated on the relationship between the brain and the world. Threaded through his career, Clynes has wanted to allow humans to communicate without words. In art and in science, he sought ways to escape the messiness and ambiguity of language. Born in Vienna in 1925, Clynes was a lifelong classical musician. Through his violin, he found that he didn't need to talk to transmit and receive emotion. "Music dispenses with the words entirely with good reason. It's richer than the words and more definite," Clynes said. "Music is not vague as some people think, the more precisely you phrase the music, the more clear is the meaning.... That is the emotional language of music." Perhaps that's why Clynes got into the study of recording the brain's electrical impulses. He sought a more definite way of knowing the mind. Early electroencephalographs could record the brain, but we couldn't make much sense of it. The brain turned out to be very noisy. When you shined a light at someone or gave them a little electrical shock, it was hard to tell what effect that actually had in their neurons. So, Clynes created a machine called the Computer of Average Transients. It was a kind of noise canceling machine. "It was a way of finding the needle in the haystack," he said. "Let's say you had a light stimulus of a certain color and you wanted to see the influence of looking at that color had on the electrical activity of the brain. You presented the color a few times and averaged the result." We can think of Clynes' work with the C.A.T. as the first step on the way to the Cyborg. If you could figure out stimulus in, reaction out -- you could develop a functioning communication system without truly knowing the inner workings of the brain's machinery. The study of what we now know as "evoked potentials" began with the C.A.T. And it was used by thousands of researchers in different fields. "For example, hearing was tested that way to see if people were deaf," Clynes recalled. "It was the most effective way of doing that without having to ask someone." Because asking someone was imprecise. Words were narrow tubes through which we tried to squeeze too much, everything. "Wittgenstein, the German philosopher, said we are bewitched by words -- hexed, as he put it in German -- by words," Clynes said during our conversation. "Even though we don't know what we're saying half the time." The same might have been true with the brain's messy firing, but the C.A.T. machine could average them to find which half of the electrical impulses were noise. Words have no averages. And yet words are the way we share information. They are how we know each other and the world. We can't escape them. Clynes, though, keeps trying. In our conversation, he related a new idea he had that would allow us to use our brains to directly interact with machines and the world. All of the movements we consciously control are tied into the brain by neural feedback. When you move your finger, your muscles send a response to your brain that says, "Yup, moved my finger," Clynes said. "That's true of all the standard movements except for one. What is that one?" he asked, pausing for effect. "The control of the lens in our eyes. All we have to do is think of a certain thing we want to see clearly at a distance or close by and automatically the muscles that adjust the curvature of the lens respond to this thought, and there is no feedback. There is no feedback. You have no knowledge of what your lens did. You know what you see of course, but that's different. There is no muscular feedback from those muscles that activate the curvature of the lens." Clynes grew more excited. "The lens is not in any way part of the body except that it happens to be there. In fact, it has no normal blood supply. It does have liquid surrounding it, but there is no blood supply because if you had blood going through the lens, you wouldn't see too well," he explained. "Nature has taken care of it. The biological control and invention of the lens is a beautiful and fantastic thing." The lens, basically, is already a cyborg implant we all have and can control precisely without the kinesthetic feedback we get from the rest of our body. Clynes believes that it is the perfect way to control objects with our brains. If we could tap the system that controls the lens to control something else, it would be "the nearest thing to telekinesis," as Clynes put it.

### Experiment 2 is the Eugenics Project

#### As humans attempt to transgress their limitations in a future filled with the possible cataclysms of space travel, climate change and nuke war, they erase awareness of biotechnological ties to eugenics[[4]](#footnote-4)… The history of biotechnological intervention on the human body has always been tied to conceptual frameworks of disability and mental health, but certain biases and assumptions have forcibly altered and erased the public awareness of that understanding. As humans move into a future of climate catastrophe, space travel, and constantly shifting understandings of our place in the world, we will be increasingly confronted with concerns over who will be used as research subjects, concerns over whose stakeholder positions will be acknowledged and preferenced, and concerns over the kinds of changes that human bodies will necessarily undergo as they adapt to their changing environments, be they terrestrial or interstellar. Who will be tested, and how, so that we can better understand what kinds of bodyminds will be “suitable” for our future modes of existence?[1] How will we test the effects of conditions like pregnancy and hormone replacement therapy (HRT) in space, and what will happen to our bodies and minds after extended exposure to low light, zero gravity, high-radiation environments, or the increasing warmth and wetness of our home planet?

#### In June 2018, an event was held at the Library of Congress in Washington, DC called “Decolonizing Mars” where attendees discussed whether disabled folx might be better suited for space life[[5]](#footnote-5)... “During the June 2018 “Decolonizing Mars” event at the Library of Congress in Washington, DC, several attendees discussed the fact that the bodyminds of disabled folx might be better suited to space life, already being oriented to pushing off of surfaces and orienting themselves to the world in different ways, and that the integration of body and technology wouldn’t be anything new for many people with disabilities. In that context, I submit that cyborgs and space travel are, always have been, and will continue to be about disability and marginalization, but that Western society’s relationship to disabled people has created a situation in which many people do everything they can to conceal that fact from the popular historical narratives about what it means for humans to live and explore. In order to survive and thrive, into the future, humanity will have to carefully and intentionally take this history up, again, and consider the present-day lived experience of those beings—human and otherwise—whose lives are and have been most impacted by the socioethical contexts in which we talk about technology and space.”

#### On April 12, 1961, the first man to enter space transformed the concept of the Cyborg. Williams[[6]](#footnote-6) explains that as ...

“But as the Space Race wore on, and more and more humans actually went into space, there was an increasingly smaller focus on the alterations and adaptations that would be necessary to survive in space, and greater public emphasis placed on a narrative of the triumphalism of the human will and ingenuity. The narrative regarding humans in space became primarily about those who had “the right stuff,” rather than a question of what we would have to do in order to adapt and thrive, and so the image of the cyborg fell away and was altered. And a whole suite of possibilities for how we might have understood—and treated—different kinds of embodiment altered, along with it.”

#### The process of determining who is and is not capable of entering space is a racist eugenic project that has littered history with disabled people who haunt the very nature of the astronaut.

Williams 19 [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM

Throughout the long history of eugenics in the United States, ideas about what constitutes the “right kind” of person—be that on the basis of ethnicity, gender, physical or mental ability, or all of the above—led to events in which people institutionalized against their will were forcibly sterilized due to claims of their reduced “fitness” and mental facilities. People with uteri were given forcible hysterectomies and people with testes were chemically or physically castrated, and certain people were simply put to death because they were seen as “unfit” to ever reintegrate with society. All of these things happened starting at very early ages and as one might guess, issues of race complicated every facet of them. As Harriet Washington notes in her book Medical Apartheid: Unfortunately, a black child is more likely than a white one to have his parent completely removed from the informed-consent equation. Black children are far more likely than whites to be institutionalized, in which case the parents are often unable to consent freely or are not consulted at all.12 Often, and to this day, children judged as even possibly having a higher likelihood “mentally unfitness” are just aborted outright, as in the case of Iceland and the Netherlands’ use of in vitro imaging technologies to determine whether or not a child has Down Syndrome. Kafer’s discussion of the Rockland Institute’s depredations serves to illustrate that even some of the most foundational work and well-respected researchers have been party to monstrous practices in order to make their discoveries. Even as Clynes and Kline’s ideal of the cyborg developed out of a concern for mental health and recognition that the human body was not developed to fit the niche of outer space, they did their work in a context built upon the degradation and predation of disabled and forcibly institutionalized persons. This understanding of marginalized persons as resources to be used or situated embodiments to be emulated has been unfortunately persistent, and it has changed the way we think about what a cyborg ought to be. Rather than being about recognizing that, as researcher of the intersection of philosophy, technology, and disability Dr. Ashley Shew has put it, we would all be disabled in space, and so would all need some form of cybernetic system of interventions to survive, a myth of the elite, perfectible human took root.14 There are number reasons why that is, and many implications for what it’s come to mean.

### Experiment 3 is the Astronaut

#### Thus I affirm: Resolved: The appropriation of outer space by private entities is unjust.

#### The modern space race shifted from being between US and the Soviet Union to being between private companies spearheading tech advances.

Bachman 7/13 [Justin Bachman, 7-13-2021, "Analysis," Washington Post, <https://www.washingtonpost.com/business/new-space-race-shoots-for-moon-and-mars-on-a-budget/2021/07/12/5bac6b04-e33a-11eb-88c5-4fd6382c47cb_story.html>] //Lex VM

The first space race was a competition between the U.S. and the Soviet Union for national pride and military advantage. Now NASA is farming out missions to private companies, and other countries have joined the race — notably China and India. The moon and Mars remain tantalizing goals for many nations, as are the technological advances that space exploration can drive. 1. Who are the new players? Since the space shuttle program ended in 2011, NASA, as the U.S. National Aeronautics and Space Administration is better known, had relied on Russia to ferry U.S. astronauts to the International Space Station, which has orbited Earth for two decades. That changed in 2020 when billionaire Elon Musk’s company, Space Exploration Technologies Corp., or SpaceX, flew its first crewed missions, powered by reusable boosters that dramatically cut launch costs. Boeing Co.’s Starliner, a new capsule for astronauts designed to fly on the existing Atlas rocket, has been undergoing a major software revamp ahead of a planned second uncrewed test flight to the space station that NASA has scheduled for July 30. Depending on the outcome of that flight, Starliner may fly astronauts to the ISS late this year or in 2022. 2. What are they planning? SpaceX launched the first private resupply run in 2012. What’s changed is that not only SpaceX but also other companies, including Richard Branson’s Virgin Galactic Holdings Inc. and Blue Origin, owned by Amazon.com Inc. founder Jeff Bezos, are driving down the cost of reaching space. Branson and five Virgin Galactic employees flew successfully on the company’s first fully crewed flight July 11, reaching the edge of space at a peak altitude of about 53.5 miles (86 kilometers) above the Earth before gliding back to land in New Mexico. Bezos plans to fly to space in a Blue Origin launch on July 20. Spacex has a contract to fly an American technology chief executive and three other civilian astronauts late this year in what the company is billing as the first all-civilian spaceflight. In 2022, SpaceX will fly a four-person mission for Axiom Space Inc., which plans a private orbiting space station. Musk’s company also has a deal to take a Japanese billionaire and his guests around the moon as soon as 2023.

#### In February 13, 2017: Elon musk made a predictive claim about the seamless integration of human and cybernetics in order to keep up with AI advancements.

Kharpal 17 [Arjun Kharpal, 2-13-2017, “Elon Musk: Humans must merge with machines or become irrelevant in AI age,” CNBC, <https://www.cnbc.com/2017/02/13/elon-musk-humans-merge-machines-cyborg-artificial-intelligence-robots.html>] //Lex VM

Billionaire Elon Musk is known for his futuristic ideas and his latest suggestion might just save us from being irrelevant as artificial intelligence (AI) grows more prominent. The Tesla and SpaceX CEO said on Monday that humans need to merge with machines to become a sort of cyborg. “Over time I think we will probably see a closer merger of biological intelligence and digital intelligence,” Musk told an audience at the World Government Summit in Dubai, where he also launched Tesla in the United Arab Emirates (UAE). “It’s mostly about the bandwidth, the speed of the connection between your brain and the digital version of yourself, particularly output.” Musk explained what he meant by saying that computers can communicate at “a trillion bits per second”, while humans, whose main communication method is typing with their fingers via a mobile device, can do about 10 bits per second. In an age when AI threatens to become widespread, humans would be useless, so there’s a need to merge with machines, according to Musk. “Some high bandwidth interface to the brain will be something that helps achieve a symbiosis between human and machine intelligence and maybe solves the control problem and the usefulness problem,” Musk explained. The technologists proposal would see a new layer of a brain able to access information quickly and tap into artificial intelligence. It’s not the first time Musk has spoken about the need for humans to evolve, but it’s a constant theme of his talks on how society can deal with the disruptive threat of AI. ‘Very quick’ disruption During his talk, Musk touched upon his fear of “deep AI” which goes beyond driverless cars to what he called “artificial general intelligence”. This he described as AI that is “smarter than the smartest human on earth” and called it a “dangerous situation”. While this might be some way off, the Tesla boss said the more immediate threat is how AI, particularly autonomous cars, which his own firm is developing, will displace jobs. He said the disruption to people whose job it is to drive will take place over the next 20 years, after which 12 to 15 percent of the global workforce will be unemployed. “The most near term impact from a technology standpoint is autonomous cars … That is going to happen much faster than people realize and it’s going to be a great convenience,” Musk said. “But there are many people whose jobs are to drive. In fact I think it might be the single largest employer of people ... Driving in various forms. So we need to figure out new roles for what do those people do, but it will be very disruptive and very quick.”

#### In May 2020, Elon Musk released a new line of space suits that are equipped with new transhumanist tools that ensure survival. The spectacularized release led to the costume resembling Superman, X-Men and the Fantastic Four – all beings who are beyond human.[[7]](#footnote-7)

### Experiment 4 is the Transformation

#### This conception of the cyborg erases marginalized experiences which are key -

Williams 19 [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM

Shew’s paper “Up-Standing, Norms, Technology, and Disability” explores how ableism, expectations, and particularities of language serve to marginalize disabled bodies.[18] Shew takes her title from the fact that most technological “solutions” designed for people who don’t use their legs are intended to facilitate their engaging the world as if they did. Many if not most things in human societies are designed to be used within a certain range of height that assumes the user is standing; if your default mode is sitting, then your engagement with the vast majority of the world will be radically different. This is just one example of what is known as the social construction model of disability, which says that it’s not the physiological differences themselves which disable, but rather the ways that spaces, architectures, and simple basic societal assumptions limit how a person is expected to intersect with the world and what kind of bodymind they “should” have.[19] Shew notes that, while we tend to think of cyborgs as some seamless integration of technology and bodies, wheelchair and crutch users consider their chairs as fairly integral extensions and interventions, as a part of themselves. The problem is that the majority of societies assume different things about these different modes. Shew mentions a friend of hers: She’s an amputee who no longer uses a prosthetic leg, but she uses forearm crutches and a wheelchair. (She has a hemipelvectomy, so prosthetics are a real pain for her to get a good fit and there aren’t a lot of options.) She talks about how people have these different perceptions of devices. When she uses her chair people treat her differently than when she uses her crutches, but the determination of which she uses has more to do with the activities she expects for the day, rather than her physical wellbeing. But people tend to think she’s recovering from something when she moves from chair to sticks. She has been an [amputee] for 18 years. She has/is as recovered as she can get.[20] Shew is one of many researchers who have discussed that a large number of paraplegics and other wheelchair users do not want exoskeletons, and that those fancy stair-climbing wheelchairs aren’t covered by health insurance, because they’re classed not as assistive devices, but as vehicles. Shew says what most people who don’t have use of their legs want is to have access to the same things that people who do have the use of their legs have. Because ultimately, in around the time it takes for Apple to come out with a new iPhone—around about eighteen months—a person who has developed a disability—lost the use of their legs, the use of their sight, the use of their hearing, the use of their arms, whatever—will come to engage and to adapt to that new lived physical reality as normal. Many societies think about disability as a life-altering, worldchanging thing—something that lasts forever and nothing will ever be the same for you—but the fact the matter is that humans are plastic, adaptable, and malleable. We learn how to live around what we are, and we learn it very quickly. All of this comes back down and around to the idea of biases ingrained into social institutions. Our expectations of what a “normal functioning body” is gets imposed from the collective society, as a whole, a placed as restrictions and demands on the bodies of those whom we deem to be “malfunctioning.” As Shew says, “There’s such a pressure to get the prosthesis as if that solves all the problems of maintenance and body and infrastructure. And the pressure is for very expensive tech at that.” Humans became seen as those creatures which self-analyze and then alter and adapt themselves based upon said self-analysis. Many philosophers of technology have argued that we are always technologically mediated, and that that mediation shapes and is shaped by our physiological and sociocultural experiences, and elsewhere, I’ve explored the questions of identity that come along with Ship-of-Theseus-like questions of bodily integrity that do not quite fit into this work.[21] Suffice it to say that even as promises of becoming “more than” human have flooded the public imagination, they have been met with equally ardent cries of “but if you lose a part of your body, you’re not really you!” Either of these positions serves only to erase and marginalize the real lived experiences of disabled people, for the sake of some assumption about what the human bodymind “should” or even just might be. Even into the twenty-first century, cyborgologists such as Amber Case, a self-described “Cyborg Anthropologist,” have argued that, thanks to augmented reality, smart phone devices, and the generally ubiquitous integration of technology in to the daily life of the modern human being, “We Are All Cyborgs Now.”[22] But something crucial gets lost, here, when we obfuscate or elide the real experiences of people with disabilities from the conversation about cyborgs and cybernetics. In her pieces “Dawn of the Tryborg” and “Common Cyborg,” Jillian Weise specifically hones in on a great deal of the foundation for the modern mythology of cyborg experience, including that which comes out of perspectives like Haraway’s and Case’s.[23] The idea that anyone with a smartphone or with a particular conceptual relationship to the world is automatically a cyborg, Weise says, does violence to the very real lived experience of people with prosthetics or artificial organs or implants that keep them alive. Those latter interventions need maintenance to keep them functional in the face of damage, to prevent life-threatening infection, and to adjust them for day-to-day changes, and while they are not necessarily “sexy,” they are a truer example of what the term’s originators thought it would mean to be a cyborg. “Tryborgs,” on Weise’s view, are those people who want all the glitz and glory of being interconnected with technology, without any of the practical implications. They are the transhumanists who believe that we will all be able to upload our consciousnesses and change our shape, at will, with no muss and no fuss. They want to be the inspirational figures, without having to suffer any losses or do any of the messy upkeep and maintenance, to get there. And they exist in many cultures.

#### Trying to fit in drives ableism i.e. trying to hide your disability from the world – rather we should embrace incompleteness – disabled experiences are good especially since humans become disabled in space.

Williams 19 [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM

In a cultural sense, the desires to either fit in or to use technology to become “more” and “better than” are what tend to drive cyborg-ableist concerns. Robertson discusses Tobin Siebers and the concept of able-bodied passing, comparing it to queer folx and “straight passing;” in each case there are transitive and intransitive forms of passing, where one is either actively effacing their difference/otherness, or merely benefitting from outside observers simply not recognizing said.[29] To that end, many may choose to make their disability (or their queerness, or both) unignorable by way of stylized prostheses; in fact, much in line with Shew’s assertions above, while people who’ve recently lose a limb may start off wanting a lifelike replacement, they tend to shift to wanting something that works and feels better, rather than just looking a particular way. [30] So are stylized prostheses better understood as empowering or distracting? On the one hand, there is something empowering about the use of a prosthetic to reshape and change the way the outside world can understand you; on the other hand, “prosthetics can divert attention from the disabled limb to its replacement.”[31] But this replacement, in itself, can be a source of discomfort for able-bodied folx. In the section “What is (and is not) the uncanny valley?” Robertson explores Masahiro Mori’s concept of Bunkimi no tani which Robertson translates as “the valley of eerie feeling,” rather than the more familiar “uncanny valley.”[32] Paired with shinwakan no tani or “familiar feeling valley,” Mori describes this as a kind of suddenly and shockingly frustrated expectation, when one is in the process of encountering and reinforcing increasingly familiar things. This concept depends heavily on Mori’s assumptions about what would constitute an “average, healthy, person” and what Robertson labels his “almost callous indifference toward disabled persons.”[33] In Mori’s graphs and descriptions of the Valley, he includes sick disabled people as on the upward curve of the “eerie,” moving away from corpses, zombies, and prosthetic hands.[34] While many people have taken the uncanny valley as some kind of gospel law, Robertson contends we should, rather, expect that the constituency or even presence of an uncanny valley would be a highly subjective thing, based on factors such as “physical and cognitive abilities, age, sex, gender, sexuality, ethnicity, education, religion, and cultural background;” and, indeed, Mori himself has said that it was meant only as an “impressionistic” guide.[35] Humans can adjust to and come to accept and embrace the unfamiliar and designers can avoid the uncanny valley, and many people on earth live in situations where injury illness and death are not “sudden and unfamiliar” or “eerie,” but rather are unfortunately everyday occurrences. But Mori’s response, and much of what is seen in the Japanese exoskeleton market, is just another example of Gotai, the traditional Japanese understanding that a “whole” or “normal” body is made of five constituent parts in combination: either the head, two arms, and two legs, or the head, neck, torso, arms, and legs.[36] This theory holds that anything that breaks this form breaks the person, a perspective which firmly binds these notions of “completeness” to notions of mental health. Hirotada Ototake’s book Gotai Fumanzoku or “incomplete/unsatisfactory body” (English title: “No One’s Perfect”) is an autobiography about his tetra-amelia syndrome which prevented his arms and legs from developing during his gestation; stressing his “Normality” and his desire to be treated equally.[37] But, Robertson notes, the kind of whole-body championed by the Japanese culture exoskeletons are not ways for people like Ototake to regain Gotai, and that there’s a difference between prosthetics that replace a limb and those that “enhance” an existing but disabled one.[38] Robertson, here, in a move similar to but not directly referential of Kafer, touches on Haraway’s use of cyborg as a metaphor for relationality and reflexivity, and, offers a critique of Haraway’s seeming to conceive of “disability” as a singular category rather than the multiform variable conditions that can be linked under this label.[39] This, along with transhumanists like Max More and Natasha Vita-More’s ableist notions of what the “perfect” body should be, feeds into narratives that comprise this vision of cyborgs as a somehow “perfected” humanity. But cyborgs were conceived as a means for humans to live in space, a situation which, again, would be a combination of constantly-dangerous processes of keeping close track of minute changes in the bodyminds of the astronauts and their relationship to their environment— processes that are already well-known to, e.g., diabetics or people with peripheral neuropathy. For a person within those lived experiences, always being aware of the state, position, and integrity of their body is always already a life-or-death scenario, in ways that have to be learned and mimicked by people who are otherwise able-bodied. Had we maintained disabled people’s stories as a part of the mythology of the cyborg, from the beginning, Western societies might now have a better relationship with concepts of disability and mental health. This relationship might have easily arisen from the recognition that most if not all disabled people are cyborgs, just as all spacefaring humans must become cyborgs, and that this, as Clynes and Kline understood, is precisely because all spacefaring humans will become disabled by the very act of existing in space. Which means that, in essence, spacefaring humans currently do and will continue to experience the social construction of disability. But since we have not, in fact, reinforced that chain of understanding, contemporary theorist would be well served to presently explore the situated and lived experiences of people with different configurations of bodyminds, and to listen to what they know about themselves. As Shew has noted, those people who have experience with orienting themselves to the world via pushing off of surfaces or using their arms as primary means of propulsion would be better positioned move in weightless environments and to teach others new strategies to do the same. Because, ultimately, people with disabilities are often already interwoven with their technologies, in ways idealized by technologists, but their lived experience is not recognized and appreciated for what it is. If we take these lived experiences and incorporate the people who embody them, in conjunction with the original intent of the notion of the cyborg, we might have the beginning of a system by which we can rehabilitate the notion of the cyborg—but overcoming the historical trends that have led us here will take a great deal of work.

#### intersectional analysis is good for historical accuracy and holistical views of subjects – looking towards history rather than the future reveals structural problems in society and ruptures current understsandings of things like cyborg.

Williams 19 [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM

Again, there are multiple sites of marginalization which can be demonstrated as having a force-multiplying effect on how people with implants, prostheses, or biochemical injection or ingestion regimens are either accepted or disenfranchised by the society in which they live. We can borrow, here, the framework of Kimberlé Williams Crenshaw’s Intersectionality theory, to help make sense of this: …problems of exclusion cannot be solved simply by including Black women within an already established analytical structure. Because the intersectional experience is greater than the sum of racism and sexism, any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which Black women are subordinated. (Emphasis added.)[40] Crenshaw centers Black women, here, but this isn’t to say that only Black women can be intersectional subjects. Rather, she uses Black women as an example of how groups of people that have been cast as only one kind of identity (Black, Woman) would be far better understood as the center of an intersectional process. Might we think of trans folx who sit at the center of their identities, biomedical technologies such as hormone replacement therapies (HRT) or binders or packers, of societies expectations about how their bodies ought to present and behave, and public technologies such as airport scanners of as cyborgs?[41] If so, they would have vastly different valences of legibility and operation than, say, a diabetic with an insulin pump—though similar ones to a person with an ostomy bag.[42] If we work to understand people in an intersectional way, we can recognize the many vectors for different kinds of oppression, in the world, and understand that even those intersectional subjects with shared component roots will have different particularities of expression and avenues by which we might redress their needs— a recognition that has been sorely and consistently lacking in much of our public discourse, to date. When we again explore the histories of eugenics and medicalization, we find that even up to this point in the 21st century, there are well-regarded researchers and even textbooks on biomedical ethics which barely touch on these issues, let alone on understanding them through a lens of intersectionality of oppression. For instance, Francis L. Macrina’s Scientific Integrity is in its fourth edition, and yet still seems to lack any substantive contextual discussion of changes made in the history of research ethics standards and practices—such as what actually happened in the Tuskegee syphilis trials. Macrina mentions that the trials took place, and even the nature of the population on which they were conducted, but he does not at any point mention the fact that researchers targeted the study’s population because they were Black, and were therefore conceptualized as resources.[43] While it is, perhaps, unfair to expect Macrina to touch on every nuanced concerns of every human subject trial, the assumption that social features are not worthy of discussion serves to reinforce a whole host of other assumptions about things like the objectivity of testing criteria or the clarity of explanations in gaining informed consent. These assumptions, if ever scrutinized at all, would simply not hold up. At the very least it is clear that the Tuskegee patients, like Henrietta Lacks, were not seen or understood as being worthy of clear explanations of what was being done to them. After all, if they understood, they might have said “no.” Focusing on the history of biomedical experimentation on populations of the forcibly institutionalized or systemically disenfranchised, and African American or female-presenting bodies, in particular, would do wonders to highlight the fact that the long-term effects of the trials were more than just some blanket distrust of medical experimentation, throughout American society. The trials in Tuskegee, Alabama fit into a longstanding pattern of treating Black bodies as resources to be used and as objects to be othered, dehumanized, and intervened upon in whatever ways the dominant society at the time has happened to see fit. And Black bodies are not the only ones. Imagine if textbook writers such as Macrina more often took the time to discuss and contextualize events like how the government and medical providers tricked Black people in Mississippi into receiving vaccinations, or the forced sterilization of Black women, or how the intersection of mental health and institutionalization of women in general led to them being experimented on and sterilized at higher rates, or the long-term ethical and social implications of classifying certain people as “morons.” More and more, the effects of these kinds of historical objectification are understood as linked to lowered health outcomes, higher rates of chronic illness, and greater morbidity for Black people and women in the United States, and a longstanding history of thinking of the neurodivergent and people with mental disabilities as “less than.” The omission of these discussions from textbooks and other broad public discourse exemplifies a persistent failure to fully contextualize the history and implications of these events. That this failure presents in so many ethical sub-disciplines might help to explain how people have so often managed to convince themselves that testing on marginalized populations without their informed consent can be said to serve the “greater good.” More often than not, “professional ethics training” or any other kind of take on the humanities within business or the so-called hard sciences becomes synonymous with a particular understanding of how not to get sued. The perspectives that get passed along are those of experts in the field in question, be it business, technology, medicine, or what-have-you. Leaving the social science and humanities training of students to people who were only ever trained in this narrow, subdisciplinary fashion is precisely what leads to the continual dismissal of ethical, moral, and sociopolitical considerations, and said dismissal then, in turn, gives rise to Technoableism If various groups want to change bodily forms and embodiments, or even just change the way that we all interact with the planet on which we currently live so that we might survive the next 30 years, then they will have to radically reconsider how our sociopolitical forces and the elements of our lived experience impact the decisions we make about the science we do and tools we create. The historical positioning of the lived experiences of marginalized people in terms of race, gender, disability, and so on has meant that while we are more than happy to test and degrade certain people for their embodiments, we have been less than willing to allow those same to shape and direct the technoscientific discourse of which they have forcibly been made a part. This distinction, though unarticulated, matters a great deal, and its effects and implications run rampant throughout every facet of our society.

#### Redefine the cyborg as a relational tool that lets us see the world in a different way - Assumptions will pervade and control the direction of scientific creations – its not about creating a perfect human its about addressing the experiences against disabled folx

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If humans do manage a future in which they travel into and live in space, they will need to change the kinds of embodiments and relations they have in order to survive; to do this, they will need to think in vastly different ways about the nature of technological and scientific projects they undertake. Our societal future imaginings are rife with assumptions about what kind of people are best suited to exist and these have been shaped by the historical positioning and treatment of many marginalized groups. Left unexamined, these assumptions and precedents will likely mutate and iterate into each new environment into which humans spread, and affect every engagement of human and nonhuman relationships. But, if we bring a careful, thorough, and intentional consideration to bear on the project of weaving together biomedical, interpersonal, sociopolitical, and technomoral concerns, then we might be better suited to both do right by those we’ve previously oppressed and agilely adapt to the kinds of concerns that will face us, in the future. As Haraway discusses in her (flawed but possibly still salvageable) “Cyborg Manifesto,” the language of the cybernetic feedback loop does not belong only to humanity as a way to describe its own processes—cybernetic theory and the myth of the cyborg are also frameworks which can be used to describe the cycles and processes of nature, as a whole.[44] Through this understanding, Haraway and others have argued that all of nature is involved in an integrated process of adaptation, augmentation, and implementation which, far from being a simple division between the biological and technological is, instead, a reflexive, co-productive process. Using the theorists and examples above, I’ve argued for an understanding of biotechnological intervention and integration as the truth of our existence with and within technology. Our bodies and minds are shaped by each other and exist as bodyminds, and those bodyminds dictate and are shaped by the technologies with which they interact. In order to carefully construct and live within vastly complex systems, it will be crucial to understanding the lived experiences of those whose embodiments and bodyminds have placed them at a higher likelihood of being marginalized by those who demand a “right kind” of lived experience. Only by allowing them to create a world out of the lessons of their lived experience will we be better able to intentionally craft what this system and its components will learn and how they will develop. What should characterize our understanding of the cyborg, then, is the reflexive, adaptive relationship between the sociotechnical, sociopolitical, ethical, individual, symbolic, and philosophical valences of our various lived experiences. The point in saying that “Cyborgs Have Always Been About Disability, Mental Health, and Marginalization” is not to say that the category of the cyborg should be Disclosed to cyborg anthropologists and philosophers who say “we have always been cyborgs.” Rather, it's about highlighting the fact that a category which was invented specifically to address the lived experiences of marginalized and oppressed people has been co-opted and transformed into a tool by which to erase the experiences of those very same people. We can, and indeed should, still make use of the Harawayan cyborg, the metaphor for entanglement and enmeshment, both as individuals and communities, but we must do so in a way that honours both the original meaning and the evolution of the concept. We must recognize that disabled people, the neurodivergent, trans folx, Black lives, women, queer individuals, and those who sit at the intersection of any number of those components comprise individual lives and communities of experience which are already attuned to changing and adapting to suddenly hostile environments, and it is these kinds of lives which should stand at the vanguard of how we understand what it means to be a cyborg, moving forward. Because the concept of the cyborg was never about a perfectible ideal, it was always about survivability, about coming into a new relational mode with ourselves, our society, and our world.

# 1AR

## Extensions

### 1AR – OV

### 1AR -- Framework

### 1AR -- Cap

1. [Damien Patrick [Researcher in Disability Studies at Virginia Tech University] “Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization”] [↑](#footnote-ref-1)
2. [https://www.theatlantic.com/technology/archive/2010/09/the-man-who-first-said-cyborg-50-years-later/63821/] //Lex VM [↑](#footnote-ref-2)
3. [Alexis C. Madrigal is a contributing writer at The Atlantic, a co-founder of the COVID Tracking Project, and the author of Powering the Dream: The History and Promise of Green Technology. He is also a co-host of Forum on KQED., 9-30-2010, "The Man Who First Said 'Cyborg,' 50 Years Later," Atlantic, [https://www.theatlantic.com/technology/archive/2010/09/the-man-who-first-said-cyborg-50-years-later/63821/]//Lex](https://www.theatlantic.com/technology/archive/2010/09/the-man-who-first-said-cyborg-50-years-later/63821/%5d//Lex) VM [↑](#footnote-ref-3)
4. [Damien Patrick [Researcher in Disability Studies at Virginia Tech University] “Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization”]//Lex VM [↑](#footnote-ref-4)
5. [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM [↑](#footnote-ref-5)
6. [Williams, Damien P., Heavenly Bodies: Why It Matters That Cyborgs Have Always Been About Disability, Mental Health, and Marginalization (June 8, 2019). Available at SSRN: https://ssrn.com/abstract=3401342 or [http://dx.doi.org/10.2139/ssrn.3401342]//Lex](http://dx.doi.org/10.2139/ssrn.3401342%5d//Lex) VM [↑](#footnote-ref-6)
7. [Holly Secon, 5-28-2020, "Elon Musk said he spent 3 to 4 years working on SpaceX's new spacesuits and hopes the design gets kids 'fired up' about astronauts," Business Insider, https://www.businessinsider.com/elon-musk-design-spacex-spacesuits-worn-nasa-astronauts-2020-5] [↑](#footnote-ref-7)