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**Neuro-Technical Enhancements and the Human Condition:
A Critical Reading of Sarah Pinsker’s *We Are Satellites***

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Abstract: The pursuit of human optimization has been a persistent vision throughout history, with various ideologies and philosophies offering ways to transcend limitations and enhance human nature. Leon Trotsky’s socialist notion of the “New Man” and Nietzsche’s vision of “Übermensch” share a common belief that human beings can be transformed into something better and more capable. Over the last three decades, with the futuristic glorification of technology, transhumanism emerged with an aim to transform the “imperfect” and “incomplete” human nature through science, technology, and innovation. Futurologists have predicted our slow transition into the age of technological singularity in which artificial intelligence and biological enhancement are combined, facilitating a shift from *Homo sapiens* to “Homo Optimus,” a technologically enhanced being. Critical responses to transhumanist thought arise from various ethical and philosophical positions; the spectrum is broadly categorized as bioconservatism. This paper explores the intersection of technology and humanity in Sarah Pinsker’s novel *We Are Satellites*, examining the implications of neuro-technical enhancements on individuals and society. Through a critical reading informed mainly by Thomas Fuchs’s critique of transhumanism, this study investigates how Pinsker’s depiction of a near-future human condition with widespread brain implants and cognitive enhancement challenge the dominant transhumanist utopian narratives around human intelligence and embodiment.

Keywords: *Übermensch, Technological Singularity, Transhumanism, Bioconservatism, Cognitive Enhancement*

The proliferation of philosophical and technological developments in the twenty-first century demands a critical re-examination of the normative assumptions underlying the human condition. Such a reconsideration intersects with long-standing theories of human perfectibility. The concept of perfectibility interrogates whether human beings can attain a morally, rationally, or biologically improved existence. The proponents of perfectibility presuppose an inherent inadequacy in the human condition, requiring intentional, reflexive interventions to redress. Many of them posit imaginaries of enhanced, ideal beings freed from all human limitations.

Nietzsche introduces his vision of *Übermensch* (Superman/Overman) in *Thus Spake Zarathustra*. He writes, “I teach you the superman. Man is something that is to be surpassed” (6). Addressing modernity’s collapse of morality and religion, and the threat of the impending decline of humanity into nihilism, Nietzsche presents his *Übermensch* as a self-overcoming individual, an unbound subject, and an autonomous author of his own existence. In *Literature and Revolution*, Soviet revolutionary and political thinker Leon Trotsky envisions a superior form of social-biological being, a new man, a new Communist Man, contrasting and replacing the fragmented capitalist subject:

Man will make it his purpose to master his own feelings, to raise his instincts to the heights of consciousness, to make them transparent, to extend the wires of his will into hidden recesses, and thereby to raise himself to a new plane, to create a higher social biologic type, or if you please, a superman. (255–56)

Recent scientific and technological advancements explore the possibilities of surmounting the “limitations” and “incompleteness” of natural human bodies through enhancements. Research in this direction aims at a technologically enabled upgradation of fallible memories, unstable cognition, fragile embodied existence, aging, and mortality. Such notions have gained popularity through “transhumanism,” an intellectual and cultural movement that affirms the prospect of improving the physical, intellectual, and psychological human capacities through nano-, bio-, and computer technologies. In his book, *The Singularity is Near: When Humans Transcend Biology*, Futurist theorist, Ray Kurzweil presents his prophetic concept of “Singularity” as “. . . a future period during which the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed” (7). Kurzweil adds,

The Singularity will allow us to transcend these limitations of our biological bodies and brains. We will gain power over our fates. Our mortality will be in our own hands. We will be able to live as long as we want (a subtly different statement from saying we will live forever). We will fully understand human thinking and will vastly extend and expand its reach. (9)

Moreover,

The Singularity will represent the culmination of the merger of our biological thinking and existence with our technology, resulting in a world that is still human but that transcends our biological roots. There will be no distinction, post-Singularity, between human and machine or between physical and virtual reality. (9)

Transhumanists thus anticipate an emergent phase in the evolution of human beings: an inevitable man-machine convergence phase. According to cognitive scientist Andy Clark, humans are already “Natural-Born Cyborgs,” “creatures whose minds are special precisely because they are tailor-made for multiple mergers and coalitions” (Clark 7).

Critical responses to transhumanist thought arise from various ethical and philosophical positions; the spectrum is broadly categorized as bioconservatism. Bioconservatives defend the essential qualities of human nature against the transhumanist utopia of man-machine fusion. They also caution that human enhancements may disrupt the essence and meaning of human existence, aggravate the existing social inequalities, and even culminate in a disastrous Frankensteinian catastrophe. In an interview published in the book *Reshaping the Human Condition: Exploring Human Enhancement*, Professor the Lord Winston, Professor of Science and Society and Emeritus Professor of Fertility Studies at Imperial College London, challenges the notion of human perfectibility. He says, “The wonder of being human is essentially the unique and random nature of each person, produced by chance as a result of meiosis, environment and various developmental fortunes and constraints. The notion of perfectibility belittles this natural biological mystery” (17–18). In his opinion,

The best way to enhance a human being is . . . to improve the environment in which we bring up our children. The old issues such as love, giving appropriate rewards, treating them with respect, listening to their concerns, providing them with a stable background, avoiding conflict, all that is crucial. Those things are more important than anything we can do to enhance the human artificially and which are not strictly environmental. (21)

Contemporary art and cultural texts are crucial sites for investigating the enhancement debate. To elucidate the conflict using a realist near-future science-fictional framework, this paper examines Nebula Award-winning American author Sarah Pinsker’s novel *We Are Satellites*. Published in 2021, the narrative revolves around a family consisting of two female parents, Val and Julie, and their children, Sophie and David. Val is a school teacher and running coach; her wife Julie is the chief of staff for a member of the House of Representatives. David is a high school student; Sophie, his epileptic younger sister. The novel traces the ramifications of a new technology called “Pilot” for these

individuals and its broader socio-economic implications. Pilot is a neural implant manufactured by Balkenhol Neural Labs to enhance cognitive abilities, memory, focus, and multitasking.

The technology is initially adopted by high school students seeking better academic performance. David insists on having one. He persuades Val, “Think of the health benefits, Ma! I’d have more time. I could join the track team . . .” (7). Val is uncompromisingly resistant to the idea, but Julie exhibits a supportive, permissive stance and even considers it for herself. Val believes that mental faculties like focus and clarity are cultivable through physiological exercises like running. For Val, “running had always helped her think; her legs and her mind felt intimately connected . . .” (14). Once, while running, she reflects on the vulnerabilities and intricacies of the human brain and how one person might perfectly utilize body and mind for sport, science, or craft, while others could not even walk across a room without exertion or pain (15). Val is beset by uncertainty and apprehension concerning invasive implantation and its effects. She worries, “How could David want his brain messed up with when the best neurologists in the country still played trial-and-error games?” (15). Sophie’s ineligibility for the implant due to her epileptic medical condition compels Val to question the relevance of Pilot. She asks, “How could recreational surgery be so precise when there was still no surgery to help Sophie? There was no logic to any of it” (15).

Teachers at David’s school actively engage in ameliorating parental apprehensions about the adoption of Pilot. David’s maths teacher, Ms. Sloan, presents the Pilot as a necessity without which no child can succeed. She explains, “It’s an optimizer. They get more out of their brains. Multitasking. The kids with Pilots have more time to study and more time for extracurriculars and fun—like gaming—because it lets them do it all at once . . . They are using their brains and time better” (16). After extensive debates and deliberation, Julie and David decide to proceed with their brain implant surgery, even as risks and uncertainties persist. At the clinic, Dr. Jordaan clarifies that the Pilot functions primarily as a mood enhancer. He says, “People with Pilots reported they were happier, less stressed, less tired” (21). Manifold objections have been documented across psychiatric studies, challenging the mood-enhancement claims of psycho-stimulants and neural implants. In his book *In Defense of the Human Being: Foundational Questions of an Embodied Anthropology*, German psychiatrist and philosopher Thomas Fuchs opines that cognitive enhancement entails potential costs. His views problematize the neural implant producers’ claim to emotional regulation. He is of the opinion that “well-being, contentment, and happiness are in a sense the rewards that nature has provided for us, the return on labor and effort, and they are usually in proportion to the effort invested” (61). He adds,

If well-being and happiness were to be kept at a permanently high level, so to speak free of charge, not only would the human striving for self-development and self-

transgression slacken, the experience of happiness would also flatten, since it would come about “undeservedly” and not as a satisfying result of one’s own efforts. (62)

As the narrative unfolds, the Pilot’s effects on the family come to light, particularly on David, who wrestles with his newfound ability to multitask. He experiences an indescribable state of overstimulation and hyperattention, which he terms “noise.” He tells his doctor:

It’s, like, everything from outside is coming inside at once, but it’s all fuzzy around the edges, too, like I’m supposed to be paying attention to certain things, but each of those things have sub-things that want attention. Like petting a dog and becoming aware you’re petting every single individual hair, and every flea. And also it’s snowing, so there is snow on the dog, and every single snowflake is different and wants to show me how different it is. (40)

Later in the novel, David realizes that “. . . he could never put anything fully away. There was an unspoken fourth and fifth and sixth and twentieth thing in every three he listed” (214). Unable to attenuate the “noise,” or to articulate his predicament, David descends into depression. Though he manages to remove the implant through explantation, the neuroplasticity of his brain retains the implant’s imprint. He tells Sophie, “My brain is still firing the way the Pilot trained it to fire, without the Pilot” (218). Effects of the Pilot prove unendurable for David; it takes a severe toll on his mental equilibrium. Seeking momentary escape from the “noise,” he turns to a drug called “Fortress of Solitude” (286), a reliance that culminates in a tragic accident. Challenging the desirability of cognitive enhancement, Thomas Fuchs writes,

Attention is a scarce resource, and many stimuli and possible objects compete for it. An excessive focusing of attention can lead to the exclusion of other objects which are possibly also useful . . . Cognitive focusing increases but the patient’s need for interpersonal relationships reduces, along with interest in new experiences, spontaneity and creativity. (60)

David’s memory enhancement too becomes a curse on account of “all the other things he had to consciously, constantly unremember” (214). Regarding memory performance, Fuchs writes,

the ability to remember much or everything seems self-evidently to be desirable, and in many cases, it is. But whoever memorizes everything can no longer forget anything. The vital balance between remembering and forgetting is easily lost from view. Forgetting relieves the memory of an overabundance of details, so that the really meaningful memories can come to the fore in the first place. (60)

The novel is also suggestive of cognitive enhancement's ethical stance in terms of social inequality and discrimination. It foregrounds the stratification of human beings into two classes: the superior class with access to augmentation technologies and the inferior class without access. Humans with unaltered biology and natural capacities are left permanently behind. Sophie contemplates, "Most classes at school were divided between Pilots and non-Pilots, with the non-Pilots being mostly kids like her, with seizures or intellectual disabilities or autism or other things that made them 'unlikely candidates,' and one or two with religious objections" (82). Her inability to compete with enhanced peers earns her the derisive nickname "slow boat" (82), and she becomes a target of peer bullying. In one instance, a piloted girl named Tonya tells Sophie, "You're not even a person as far as I'm concerned. You and your friends in your slow class are so sad, trying to keep up with the rest of us. Why don't you drop out? You'll never get through school without help. We're the new humans and you are unevolved" (85).

American political philosopher Michael J. Sandel warns us about this ethico-social impact of enhancement technologies. He writes,

If the enhancements could be passed down the generations, the two classes might eventually become subspecies—the enhanced and the merely natural . . . the fundamental question is not how to ensure equal access to enhancement but whether we should aspire to it in the first place. (Sandel 52)

He also critiques transhumanism's utopian view of creating superhumans. According to him, "That promise of mastery is flawed. It threatens to banish our appreciation of life as a gift, and to leave us with nothing to affirm or behold outside our own will" (62).

The transhumanist-bioconservative debate has become acutely relevant to the current socio-technical milieu. Human enhancement has shifted from the province of science fiction into material practice. Artificial limbs and prosthetics already augment the body, undeniably serving humanity's welfare. Brain-computer interface (BCI) research has been advancing rapidly, and companies such as Neuralink in the United States have started developing enhancement technologies. Despite promises of empowerment for disabled persons, possibilities of life extension, and superhuman powers, the technology harbors ethical risks and dangers of technical pitfalls. Moreover, the technology generates an undesirable, unnatural hierarchy and stratification among human beings, with enhanced individuals advancing and others lagging behind. Sarah Pinsker's *We Are Satellites* makes it imperative to re-examine what it means to be human. The book invites us to interrogate the true meaning of scientific progress in a world ruptured by wars, poverty, and biases and to reimagine progress in terms of equality and justice.

Works Cited

- Clark, Andy. *Natural-Born Cyborgs : Minds, Technologies, and the Future of Human Intelligence*. Oxford University Press, 2003.
- Fuchs, Thomas. *In Defense of the Human Being: Foundational Questions of an Embodied Anthropology*. Oxford University Press, 2021.
- Kurzweil, Ray. *The Singularity Is Near: When Humans Transcend Biology*. Viking, 2005.
- Nietzsche, Friedrich. *Thus Spake Zarathustra*. Translated by Thomas Common, Random House, INC., 2006, www.archive.org/details/thusspokezarathu00nietuoft.
- Pinsker, Sarah. *We Are Satellites*. Berkley, 2021.
- Sandel, Michael J. “The Case against Perfection: What’s Wrong with Designer Children, Bionic Athletes, and Genetic Engineering.” *The Atlantic* , vol. 294, no. 3, Apr. 2004.
- Trotsky, Leon. *Literature and Revolution*. Translated by Rose Strunsky, George Allen & Unwin Ltd., 1925.
- Winston, the Lord. “Cognition and Its Environment: The Limitations of Genomic Intervention.” *Reshaping the Human Condition: Exploring Human Enhancement*, interview by Leon Zonneveld, 5 Feb. 2008.