

Human and Technology at Crossroads: Visions of Subjectivity in Mindscan

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Abstract

This paper engages in a critical reading of subjectivity as portrayed in *Mindscan*, a contemporary science fiction novel by Robert J. Sawyer. The reading is concerned with investigating a futurist portrayal of human subjectivity as it interfaces with technological advancements. "Subjectivity" is used interchangeably with "identity" and "the sense of self" which denote human social constructs and consciousness. The concepts represent humanity negotiating its existence with ideology, embodiment and agency. Assuming that the mind and body are two entities, the analysis looks at how and why the mind/body, specified as the primary site for human subjectivity as encapsulated in Cartesian dualism, is changed or altered as a result of the interfacing with technologies. By envisioning the shape of future subjectivity as delineated in the novel, this paper provides an insight into our human selves and our impending posthuman condition.

Keywords: science fiction, technology, subjectivity, Cartesian dualism, posthumanism.

1. Introduction

In the late eighteenth and early nineteenth century, human lives changed dramatically as a result of the industrial revolution that started in Britain. The revolution changed modes of travel and communication, agricultural practices and manufacturing systems. For example, labour-based activities turned into mechanised manufacturing, which increased productivity tremendously. In the late twentieth century, we witnessed and experienced even greater advances in science and technology where limits of human existence and capabilities were pushed even farther. We can travel hundreds of miles effortlessly, communicate with people across the globe in an instant and access information at the press of a button. In addition, we managed to find cures for many previously incurable illnesses and found ways to improve our health as well as our appearance. Immortality rate increased greatly as

our aging process is slowed down due to the advances in medicine and improved physical environment and lifestyle. In the twenty first century, the human desire for longer life, increased cognitive capacities and immunity against diseases has initiated many more “technological projects” to help achieve these needs (Richard A. Jones 2007).

However, at the basis of all human desire for improvement, is the reality that many of these technological projects involve changes to the environment as well as to the human body (Kurmo Kansa 2008, David E. Nye 2006). Now more than ever, our environment can be adjusted by technology to suit our needs, for example, air can be heated or cooled and light can be dimmed or brightened. Human bodies are altered through plastic or cosmetic surgeries, organ transplants, implants and the use of prosthetics so that limitations can be surpassed. Inevitably these adjustments, especially those to the human body, have raised a fundamental question - as we become more and more compelled to embrace technology in order to fulfil our desires how much of our subjectivity, which reflects our awareness of sense of selves and identities, is also being changed? Additionally, in the future, how much more access to technologies will humans have and will we be able to make informed choices to ensure that humanity remains recognisable?

To take on an investigation into the area of human subjectivity and its future as introduced above, this paper engages in a critical reading of *Mindscan* which presents futuristic portrayal of the society as it interfaces with technological advancements. Through a critical examination of the concerns portrayed in the genre of SF, we suggest that Sawyer’s depiction of technological advancements is influenced by contemporary understandings and apprehensions regarding subjectivity thus speculating a possible impending condition for humanity into posthumanity. As a SF text, *Mindscan* is representative of the manifestation of technologies as material that influences our social practices - simultaneously determining, broadening and transforming the parameters of human subjectivity. Consequently, aspects of subjectivity that are examined in this paper are the mind and body as they represent the basis of the formation of the human self as stipulated in the Cartesian dualism.

2. Defining Human Subjectivity

Subjectivity denotes the various understandings of the concept of a subject or a person (Nick Mansfield 2000, Paul Smith 1998). In its simplest terms a subject is a human being. Etymologically, the term subject (from Latin *subjectus*) refers to a person subjected to the control of another, such as a king. In Western thought, the notion of subjectivity has been both developed and contested in the pursuit of understanding and finding answers to questions such as: “...what is a subject...? How is it ‘central’ to modern Western culture? How is it linked to rationality and rights?” (Simon Malpas 2005: 57). Modern philosophers believe that at the basis of identity there is “a ‘thinking I’ that experiences, conceptualises and interacts with the world”. The ‘thinking I’ indicates a human agent capable of action and rational reflection upon his action and everyday realities. The ability to reflect on our sense of self, according to Miranda Campbell (2004), is purely a human trait and no other living being is capable of reflexivity.

Subjectivity and identity have sometimes been used interchangeably, perhaps because they denote similar aspects. However, according to Donald E. Hall (2004), there are slight differences in the two notions with regards to the degree of consciousness in which aspects such as gender, ethnicity, sexuality and class are internalised. He defines identity “as that particular set of traits, beliefs, and allegiances that, in short - or long term ways, gives one a consistent personality and mode of social being” (Hall 2004: 3). Subjectivity, on the other hand, implies “a degree of thought and self-consciousness about identity” (Hall 2004: 3). Therefore, the thought and sense of self-consciousness, according to Hall, allows us to consider three critical aspects pertaining to identity. The first is “how and from where identity arises”, the second is “to what extent it is understandable” and the third is “to what degree it is something over which we have any measure of influence or control” (Hall 2004: 3-4). In the context of the future worlds portrayed in the text selected for this study, the three questions proposed by Hall above are even more difficult to answer as a result of humanity’s encounter and close proximity with technology.

In addition, the complexities of subjectivity are also heightened by the fact that forms of consciousness are time-dependant. Kathleen M. Kirby (1996: 149) explains, “it can at least be

hypothesized, for instance, that not only the concept but also the experience of subjectivity was different in 1600 than in 1900...". This view suggests that the standards for human subjectivity will constantly change, depending on the particular time and space as well as on the subject's position in relation to the dominant culture. As Kirby explicates, "the intermittent, fluid subject in crisis theorized by Freud did not become possible, in a certain form, until the modern period". Likewise, the view that "the fortified, autonomous subject envisioned by Enlightenment thinkers may be fading away" (Kirby 1996: 149) is also being debated as seen in the posthumanist longing to have a disembodied experience in a digital environment (Steven Mizrach 2006), which reflects a return of Cartesian humanism¹ that privileges the mind over body.

3. Cartesian Mind/Body Dualism

Rene Descartes (1596-1650) was a significant contributor to the field of Mathematics. Nevertheless, his mind/body philosophy also plays a major role especially in the development of Modern Subjectivity Thought (Duan Dezhi: 1996). His argument that the human mind and body are separate and distinct is known as the Cartesian dualism. The central thesis in Descartes' Sixth Meditation², which deals with the existence of material things, explains that humans are made of a coming together between *res cogitans*, the thinking substance or the mind, and *res extensa*, the extended corporeal substance or body. Acknowledging the closeness between mind and body, Descartes further asserts that the thinking substance that makes us uniquely human is the mind, which is not to be mistaken with the brain. In Descartes' own words:

...my essence consists solely in the fact that I am a thinking thing [or a substance whose whole essence or nature is to think]. And although possibly... I possess a body with which I am very intimately conjoined, yet because, on the one side, I have a clear and distinct idea of myself inasmuch as I am only a thinking and unextended thing, and as, on the other, I possess a distinct idea of body, inasmuch as it is only an extended and unthinking thing, it is certain that this I [that is to say, my soul by which I am what I am] is entirely and absolutely distinct from my body, and can exist without it. (Descartes 1997: 181)

The novel, *Mindscan*, subscribes wholly to this notion that the mind and body are two distinct entities. Therefore the technology in the novel is "invented" to capture the "data" in the human mind as a way to ensure immortality of humankind.

Thus, this paper considers the basis of Cartesian dualism that the mind or the immaterial thinking substance is the core of the human "I" and that it interacts with the corporeal or the extended entity that is the body. This notion of human subjectivity is of relevance to this paper, as the novel allows us to see into the future where the human mind can be physically separated from the body. The separation has significant implications on human subjectivity as the analysis of the characters will show.

4. Haylesian Posthumanism

Similar to Cartesian dualism, posthumanism also began with the assumption that the human mind is superior to embodiment in determining subjectivity. N. Katherine Hayles (1999) states that like many posthumanist, Hans Moravec - the author of *Mind Children: The Future of Robot and Human Intelligence* - sees a future where the human mind can be separated from the body with consciousness remaining unchanged as the assumption is that "...because we are essentially information, we can do away with the body" (Hayles 1999: 12). Badmington (2003: 11) further explains that "the seemingly

¹These instances of humanist attitude, even in an era that is moving towards posthumanism, is our defense for going back to Descartes for this research.

² Descartes' six meditations include – First Meditation "Of the things as to which we may doubt"; Second Meditation "Of the nature of the human mind"; Third Meditation "Of God's existence"; Fourth Meditation "Of the true and false"; Fifth Meditation "Of the essence of material things; and Sixth Meditation "Of the Existence of material things" (Descartes, Key Philosophical Writings)

posthumanist desire to download consciousness into a gleaming digital environment is itself downloaded from the distinctly humanist matrix of Cartesian dualism” – a desire that is informed by Enlightenment notions that projects “‘Man’ as an autonomous and rational thinker, able to fashion or improve himself and society through education and self-reflection” (Jill Didur 2003: 98). In addition, it is suggested that the posthuman condition is a result of “the application of present and future technologies, including but not limited to genetic engineering, transgenic technology, bionic implants, brain/computer interface etc” (K. Mark Smith 2005).

Hayles, however, is sceptical towards the mainstream posthumanist perception that embodiment plays little or no role in our sense of self. She argues that the human mind is highly dependent on embodiment to enact its thoughts and that the implications of embodiment and disembodiment have a great impact on subjectivity. She states, “my nightmare is a culture inhabited by posthumans who regard their bodies as fashion accessories rather than the ground of being...” (Hayles 1999: 5). Instead she proposes a version of a posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality, that recognizes and celebrates finitude as a condition of human being, and that understands human life as embedded in a material world of great complexity, one on which we depend for our continued survival. This notion of posthumanism is what we call the “Haylesian Posthumanism”.

Firstly, what is pertinent in Hayles’ vision of the posthuman cited above is that the body is essential to how and what we think of ourselves. The belief that embodiment is of no importance to human existence will have significant moral and cultural consequences. Secondly, the limitations of the human condition must be recognised and accepted. Ironic though this may be, Hayles asserts that acceptance is important to ensure the survival of humanity in that its condition remains recognisable despite being rooted in a multifaceted material world which includes an aspect of concern to this study - embodiment intersecting with technologies and its effects.

5. Summary of Mindscan

Mindscan opens in the year 2018 in Canada with Jake Sullivan, the protagonist, sole heir to a brewery empire having an argument with his father, Cliff Sullivan. As the argument heated, the latter suddenly collapses. Rushed to the hospital he is later diagnosed with “Katerinsky Syndrome”, a condition known to be hereditary but with no cure discovered as yet. So, at thirty nine, Cliff is a “vegetable” and at seventeen, Jake has to live with the knowledge that the blood vessels in his brain may also rupture at any time causing permanent vegetative state or death. The novel then jumps to the year 2045. Jake Sullivan is now an adult in his early forties. Having lived 27 years with the fear that he could go into a coma or die at any time - which resulted in a miserable personal life, a strained relationship with his mother and guilt for causing his father’s coma - Jake then decides to go through a newly developed process by Immortex Corporation called Mindscan. The process enables him to copy his consciousness, discard his condemned biological body and upload the copied consciousness into an android body. The biological Jake, or Shedskin (all biological versions of individuals who have gone through the mindscan process are called this), has to give up all legal rights, go into retirement at the paradise-like High Eden which is situated on the far side of the moon and can never return to Earth. From the point Jake had his consciousness copied and transferred, readers are confronted with two narratives on Jake Sullivan, the android Jake and the biological Jake.

One of the first things that Jake had to do before the mindscan process was to choose an android body, which can be made to resemble the biological version at any stage of life, for his copied consciousness. Jake chooses to be “forty something”, his real age. At the Immortex Corporation Jake meets Karen Bessarion, an American octogenarian writer of the children’s DinoWorld Series, who is also having her mind scanned. After the procedure the biological Jake is immediately sent to High Eden as agreed. Soon after, Jake has second thoughts about his new status as a “retiree” on the moon, especially after he realises that back on Earth, a cure has been found for Katerinsky Syndrome. Prior to having his mind scanned, he also did not pursue his interest in Rebecca Chong, a woman he is in love with. And because of these factors and several others, Jake has to battle regrets as a result of his decision to have his mind scanned and transferred. Unwilling to accept his fate, after having been cured of Katerinsky Syndrome, Jake decides to take matters into his own hands when the management

of High Eden refuses to let him go back to Earth to resume his old life. He takes several High Eden staff hostage and demands to see and talk to the android Jake to negotiate some kind of exchange – basically Jake wants back his life on Earth. The suggestion is this: the android Jake can stay at High Eden until the biological Jake dies a natural death at which time the former can then return to Earth. Therefore, the android Jake is flown in to High Eden to pacify Jake but a scuffle resulted in Jake's death.

Up to the point he is called to help at High Eden, the android Jake is battling his own internal and external conflicts. Soon after waking up in the android body, Jake finds his existence confusing and detached from all human senses. Although he is no longer colour blind, he also no longer feels aches, pains or hunger. He also does not need to sleep any more. Despite the struggles with a new body, Jake, now free from the threat of Katerinsky Syndrome, decides to re-establish a relationship with Rebecca. Unfortunately she could not accept that Jake, whom to her looks, sounds and feels synthetic, is the same Jake she knew. Similarly, his mother also rejects the new Jake. Feeling alienated he finds solidarity in the company of the new Karen Bessarion.

6. Analysis

6.1 Wretched Bodies, Liberated Minds³

As it will be remembered, Descartes, in the initial principle of his Sixth Meditation states that the mind “is entirely and absolutely distinct from [the] body, and can exist without it” (Descartes 1997: 181). Paradoxically, he also stresses the importance of the interaction between mind and body in making sense of our experience as humans. Embodiment, the bodily aspect of human subjectivity, not only pertains to our biological and physiological entity; it also encompasses external object-related experiences that may involve emotion, aspirations and social interaction. Having entered 21st century, perceptions and attitudes towards the body are now very much influenced by developments in science and technology. As such, nowhere in the literary sphere has the fate of the human body been outwardly speculated and experimented upon than in the genre of SF (Shahizah Ismail Hamdan and Noritah Omar 2010, Michael C. Milam 1995, David H. Wilson 2009, Lisa Yaszek 2002). In this genre, it is portrayed that the most obvious and dire threat comes from the belief that the human body is poorly designed and perishable thus unable to contain the durability of the mind. One of the consequences of this thinking is body loathing, defined as “the feeling of mistrust and contempt for the cumbersome flesh” (Michael Dery 1996: 235). In light of rapidly changing technological environments the body is deemed wretched when it no longer functions due to age or diseases thus body loathing becomes pervasive. As a result, the preservation and control of the patterns of the mind, believed to be the core of human identity (Descartes 1997; Paul Edwards 1967), appears to be the ultimate goal of the characters portrayed in the selected SF novel in this study and has turned into a quest to liberate their minds from their wretched bodies. Therefore at this level of reading, it can be discerned that the novel *Mindscan* privileges the mind as the primary site for rationale thoughts, identity and sense of self. However, it is also apparent that the paradoxical nature of Cartesian dualism is present in the characters' struggle for unity in terms of mind and body after the alterations. In the novel, Immortex Technology which developed the mind scanning technology works within the principle that the mind is a:

“...software running on the hardware we call the brain... when your old computer hardware wears out, you don't think twice about junking it, buying a new machine, and reloading all your old software. What we at Immortex do is the same: the software that is you starts running on a new, better hardware platform.” (Sawyer 2005: 18)

With the mind considered as chunks of data in the brain, enabling the human psyche to be copied and transferred into much better “casings” compared to the organic human body, the extract shows that

³ Phrase taken from Charles T. Rubin's article "Artificial Intelligence and Human Nature," published in the *The New Atlantis* Number 1, Spring 2003, pp. 88-100. 30 July 2008. <<http://www.thenewatlantis.com/publications/artificial-intelligence-and-human-nature>>

bodies of flesh are commodities that can and should be replaced. The extract also prophesises that the practice of disembodiment and re-embodiment would eventually be another parameter in subjectivity because there are technologies that allow for attitudes such as dissatisfactions with the flesh to become a norm in society. It is within this technological premise that the protagonist in *Mindscan*, Jake Sullivan, is given the opportunity to “re-create” himself.

Prior to the creation of the mindscan technology, Jake led an anti-social and far from perfect life, afraid to be happy despite the economic advantage inherited from his family. This is because he had also inherited Katerinsky Syndrome; so he decides to give up his detested biological body to escape the possible effect of the disease which is death or a vegetative state. Opting for an android body that looks like himself, Jake goes through the experimental mindscan procedure, simply described in the novel as a process that is “nothing more daunting than an [MRI]” (Sawyer 2005: 12). The prospect of having his mind in a new, more durable body that will not “wear out..., won’t suffer strokes or aneurysms..., won’t develop dementia or senility... [a]nd... won’t die” (13) liberates Jake Sullivan from his wretched body.

Theoretically, the availability of a technology such as mindscan potentially takes all of humanity into an unprecedented posthuman condition as it not only eliminates fears, but also the biological need to eat, drink, sleep or copulate. Within a larger context it also changes the social realities of human experience and existence. As the spokesperson for Immortex Technology explains,

“[i]f you decide you want to go skydiving, and your parachute fails to open... [or] someone shoots you with a gun, or stabs you with a knife – well, you’d almost certainly still be fine... With our process, you’ll have a virtually unlimited lifespan, with perfect eyesight and hearing, vitality and strength, self-sufficiency and dignity” (15-16).

For Jake, waking up in the android body, his initial feelings are understandably one of sheer relief, “For the first time in ages, I felt calm, safe. I wasn’t going to suddenly have a massive cerebral hemorrhage... I was going to live a full normal life” (48). However, shortly after, Jake Sullivan begins to demonstrate a sense of detachment and fracture that can be described as cyborg anxiety, a term used to illustrate an oscillation between relief and panic represented in the elements of the machine and those of the human (Istvan Csicsery-Ronay 1991). On the one hand, Jake Sullivan is relieved his new android body promises him dependability in terms of an indeterminable long life, good health and physical resilience. On the other, panic edges in when he could not make sense of his emotions in relation to the new body leaving him with a sense of disconnectedness. He is left in a state of unfeeling yet feeling and without emotions yet at the same time over-ridden with emotions:

“I was in a bizarre sensory state. In most ways, I was *understimulated*: I wasn’t conscious of any smells and although I could tell I was now sitting up, which meant I had some notion of balance, there wasn’t any great downward pressure on the back of my thighs or my rear end.” (Sawyer 2005: 50)

Here, the paradoxical nature of the Cartesian dualism is evident in Jake’s experience. As explained by Descartes, the mind should be able to make sense of itself regardless of the body because the essence of a human consists mutually in the fact that it is a thinking being. Nevertheless, because it is a thinking being, Jake’s mind senses the separation that it went through and after being re-embodied is signalling to him a disjointed experience.

Jake’s new body also proves to be not instantaneously liberating as anticipated. Walking was initially a labour and the new body had to be taught the basic movement, “I lifted my right leg, flexing my knee, swinging my thigh up, and letting my weight shift forward. It was a lurching first step, but it worked. I then tried lifting my left leg, but it swung wide...I found myself pitching forward, completely off balance, the tiles...rushing towards my face” (52). Jake is assured by his doctor, “We’ve got technicians, of course, who could work with you on your walking” (55). What this signals is a significant turning point in Jake’s identity – in his quest for longevity and on the decision to shed a poorly designed organic body he is now a machine that needs technical help from a technician instead of a physiotherapist for his post-mindscan rehabilitation process.

With a touch of humour, rather dark though it may be, the author portrays another shocking mind/body experience for Jake when Clamhead, his long-time companion and “man’s best friend” fails to recognise him. Even though he has the same voice, the same personality and the same memories, Jake is unrecognisable to the dog.

“Clamhead came bounding down the stairs, but stopped short when she saw me. I’d expected her to leap up and kiss my face, but that didn’t happen... [and] I’d never known Clamhead to bite anyone,

but she bit me... tearing out a ragged piece of plastiskin, revealing fibre-optic nerves, bungee-cord muscles, and a blue metal armature within. She fell back on her haunches, and sniffed at the plastic, then turned tail, and bounded away up the stairs, whimpering.” (91-92)

This event, which unsettles Jake, shows the significance of embodiment to his identity. The body proves to be an important signifier for an object-related experience to be meaningful and continuous. The disembodied emotions which followed the dog’s rejection also seems alien to Jake.

“My heart wasn’t beating fast – because I had no heart. My breathing wasn’t ragged – because I did not breathe. My eyes weren’t stinging – because I could not cry. I just stood there, letting time pass, shaking my head slowly left and right, feeling rejected and alone.” (92)

Jake’s efforts at trying to be “at home” in the new body prophesies the future of human subjectivity when the idea of the human/machine hybrid is taken to the extreme. In the posthuman worldview, Jake is not only suffering from cyborg anxiety, he has become a cyborg – a literal synthesis of cybernetics and human. However, in the instance above, the fusion fails when emotions could not interact and correspond with the body in order for him to feel human. Although Jake is highly aware of the emotions he is going through upon experiencing the rejection, the gap between human and machine cannot be bridged as he discovers that his android body could not feel what his mind is thinking. To add to his frustration, the so-called “super body” also fails to connect with the finer details of human experience and realities.

“...things didn’t feel the same. My favourite chair was no longer as comfortable; the carpet had almost no texture beneath my bare feet; the banister’s rich woodgrain...had become a uniform smoothness...” (95)

In principle, the mindscan technology seems to have succeeded in synthesising the mechanics of the complex abstractions in a human mind and the immortal concreteness of a machine. However, the fracture dividing the two entities seems to be the result of the android body failing to capture the complexities of human emotions. Jake’s own internal struggle shows a significant link between the mind and body in terms of human experience and sense of self.

“For centuries, humans have claimed to have out-of-body experiences. But what is the mind divorced from the body? What would a recording of the brain patterns be without a body to give them form? ... No, vision can’t exist without a body. “The mind’s eye” is metaphor, nothing more. You can’t have a disembodied intellect – at least, not a human one. Our brains are parts of our bodies, not something separate.” (94-95)

Later as he develops an intimate relationship with Karen Bessarian, a fellow mindscan, Jake realises further how his body is disconnected from his mind, “...I found nothing sexy about it... I *wanted* it to be sexy, but it was just plastic and Teflon rubbing together, silicon chips and synthetic lubricants” (112). It seems there is little in his new embodiment that corresponds to the bodily sensations experienced in his mind and as encoded in “normal” human experience. From this context, it is evident here that in discussing human desires and sexuality in relation to subjectivity there are two points of reference - the intangible feelings and how the feelings are manifested. In Jake’s context the intangible feelings can only be manifested in relation to the body as the basis for the sexual attraction to Karen. Without the familiar contours of the body as points of reference Jake is unable to establish his sexuality. This reveals that the posthuman – part biological, part machine - is not adequate in capturing human subjectivity holistically as human desire is located firstly in the body, which is internal, and only secondly in relationships which is an external factor.

Be that as it may, the posthuman Jake is also confronted with difficulties in forging relationships. As difficult as it was to convince himself, it proves to be equally so to convince others that he is Jake Sullivan.

“...I lived for her little touches, her hand on my forearm, a leg pressing against mine as we sat on the couch. But the whole evening, she didn’t touch me once. She hardly even looked at me.

‘Becks,’ I said at last... ‘It is still me, you know.’

... ‘Yeah,’ she said. ‘Sure.’

...by the end of the evening, I couldn’t recall [her] having called me Jake.” (97-98)

The example suggests a very real difficulty of acceptance and of negotiating relationships between human and machine. In fact to his mother, Jake has clearly crossed over to the other side and she refuses to identify the new Jake as her son because, like Rebecca, she could not accept the new embodiment as Jake, let alone as human.

“ ‘You think I don’t know a robot when I see it?’ ... ‘You’re not my Jake. What’s happened to Jake?’.. She was looking at me indirectly... ‘This is just like what you – the real you – do with Clamhead when you’re out of town. You have the damned robokitchen feed her. And now, here you come, a walking, talking robokitchen, here in place of the real you, doing the duties you should be doing.’ ... ‘Go away,’ my mother said. ‘And don’t come back.’” (99-100)

Therefore, in defining the human self, there are more identity politics to contend with as a result of the intimate contact with technology. As such, Helena Sippi (2011: 197), in her article on neuro-enhancements and moral ethics states that,

“[a]ccording to naturalness arguments referring to belonging and human nature, neuro-enhancement destroys or deforms something that is essential for human beings. In other words, neuro-enhancement is seen to make such great changes in individuals that they cannot be considered human beings any more.”

Consequently, in the context of this novel, Jake - in his new part machine and part human subjectivity - seems to be othered and that a new dualism, man/machine, has been created in the process of embracing technology.

Whilst the general posthuman worldview promotes cyborg⁴ subjectivity as the future of humankind (Adam Ruch & Ewan Kirkland (2010), Jake the human-machine hybrid in this novel’s mid-twenty first century setting seems to have confronted a split in his sense of self and faces conflicts with those around him as they could not accept him as Jake Sullivan. This seems to show that the body is integral to human subjectivity in that it helps us recognise ourselves as humans with all its unique emotions as well as limitations. Although the novel suggests that cyborg embodiment ensures survival as well as agency, it also exhibits some kind of trade-off, in particular to our relations with our selves as well as others; and that this new subjectivity also raises new problems with implications to the larger society. For example, Jake later realises he can only find a sense of belonging with a fellow mindscan or also known as uploads and later find themselves pitting against the humans.

Nonetheless, Jake Sullivan’s effort at perfecting his life via technological advancement brings to light two major dichotomous aspects pertaining to subjectivity. First is the belief in mind/body dualism where the mind and body are seen as distinct and separable. This is experimented upon and made feasible by the author through the mindscan technology. However, secondly, it also brings to the fore the natural and necessary interaction that occurs between mind and body for us to make sense of ourselves and our environment. Charles Taylor’s concept of the dialogical self best describes this interaction between mind, body and object-related experiences. He says,

“[o]ur body is not just the executant of the goals we frame, nor just the locus of causal factors shaping our representations. Our understanding itself is embodied. That is, our bodily know-how, and the way we act and move, can encode components of our understanding of self and world” (1991: 309)

and the novel shows how Jake Sullivan’s sense of self is fractured when his mind is separated from the body and moved into a synthetic, android body which initiated questions about his own subjectivity.

6.2 Altered Characters and the Posthuman Desires

According to Arnhart (2003: 68), “[h]uman beings generally desire a complete life, parental care, sexual identity, sexual mating, familial bonding, friendship, social ranking, justice as reciprocity, political rule, war, health, beauty, wealth, speech, practical habituation, practical reasoning, practical arts, aesthetic pleasure, religious understanding, and intellectual understanding”. He believes that these desires are so inherent that they will not be radically changed despite the developments in technology. Nevertheless, Arnhart also admits that technologies may be used to fulfil the desires. In the context of the posthuman worldview as projected in SF texts such as the novel *Mindscan*, the fulfilling of desires via technology is inherently clear. Burdened by varying limitations of their bodies, the characters use technology to alter their existence, turning themselves into cyborgs.

In *Mindscan*, Jake Sullivan’s quest for a “complete life” sees him fervently discarding his body because he was made to believe that his consciousness would remain unchanged, as if it has no

⁴ synthesis of cybernetics and human

connection with embodiment. However, the narrative indicates clearly Jake's internal (as well as external) conflicts and fractures. Nevertheless the narration also makes us believe that in essence Jake Sullivan is still the same as he begins to adapt and "settle" in a synthetic body. The author seems to indicate that like most technologies humans have had to deal with, something as drastic as mindscan would inevitably be part of our lives also, making disembodied/re-embodied identities one of the facets that will redefine and re-characterise social practices. In our opinion, the notion that total disembodiment and re-embodiment will become common social practice will have significant impact on individual and collective subjectivities considering the interactional and dialogical nature of the mind and body and how we make sense of our existence as depicted in our reading of the novel.

Nevertheless, indications of an evolving and less fractured psyche are portrayed through Karen Bessarian's desire not just for a complete life, but also one that is eternal. For Karen, even before the mindscan procedure, she is already reconceptualising her identity as something that exists in relation to the new-found technology. Her needs are not as narrow and parochial as Jake's for they do not only involve escaping the frailty of the flesh - she clearly portrays a posthuman desire to be immortal:

"... 'So you uploaded in order to make sure you keep getting royalties on *DinoWorld* forever?'

'It's not just that,' Karen said. '... When something falls into public domain, *anyone* can do *anything* with the material. You want to make a porno film with my characters? You can, once my works go into public domain. And that's not right. They're *mine*.'

'But by living forever, you can protect them?' I said.

'Exactly. If I don't die, they never fall into public domain.'" (82)

Her new aspirations and her decision to embrace technology have altered her identity as woman and mother because she is now a posthuman entity, a condition that will deprive her son of any inheritance.

7. Conclusion

Essentially, this paper explored the essence of subjectivity, within the framework of the human mind and body, as it intersects with technology. Within the posthuman worldview, the Cartesian mind/body dualism can be conceived as having an ambiguous position. On one hand, the belief is that the mind and body are two different entities, hence separable. This makes the posthuman assumption that human beings can have a seamless existence with machines via the human mind a possibility. On the other hand, the analysis of *Mindscan* shows that although the mind and body are separable by technology, the characters struggle to come to terms with their half machine and half human subjectivities.

However, the novel and its imagined technology provide an avenue for the human mind/body dimension to be debated within the posthuman worldview, specifically within the Haylesian posthumanism. This is because the technology envisaged by the author opens up the opportunity to problematise Cartesian dualism in relation to human subjectivity within a futuristic SF context bearing in mind that the technology is based on existing philosophies and technologies. As Philip Snyder (2005) remarks, the fundamental question of "what might it mean to be human" has been constantly revisited in SF, most typically in stories on human cloning. Consequently, our analysis shows that the novel takes the question further by experimenting within the context of the posthuman worldview that human consciousness are blocks of data that are copiable, transferable, or programmable; and on human bodies seen as durable, limiting and an aspect of humanity that should be improved or discarded. Despite the impending posthuman subjectivity, this literary experiment reveals that human subjectivity is primarily based on the mind and body interacting and acting together to produce consciousness that is not fractured. A posthuman is an amalgamation of human and machine whose subjectivity consists of a combination of a thinking mind and a body that should react accordingly to the thoughts. However, what the technology in *Mindscan* reveals is that human subjectivity is more dependent on embodiment as reflected in the characters' obsession with their bodies. This dependency, therefore, negates the Cartesian view that the mind has primacy over the body and supports the Haylesian notion of posthumanism in the debate on human subjectivity.

Consequently we suggest that "body loathing" or the contempt for the flesh resulted in mind transfers and body manipulations. The consequences of the transfers and manipulations on human subjectivity

are then projected through conflicts between human mind and body. This is notably projected through the “miscommunications” between the organic and the machine, translated into unfulfilled needs and desires. An ironical condition is revealed – that is, the need to be posthuman is significantly driven by human desires thus positing it as a vital component of human subjectivity.

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