

# Delineating humanistic underpinnings in the midst of posthuman evolution: A study of Hannu Rajaniemi's *Jean le Flambeur* trilogy



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**Abstract** This research aims to delve into the intricate and multilayered connection between humans and posthumans, as depicted in Hannu Rajaniemi's *Jean le Flambeur* trilogy. This Finnish American author's trilogy, consisting of *The Quantum Thief* (2010), *The Fractal Prince* (2012), and *The Causal Angel* (2014), paints an insightful picture of this interaction. The investigation aims to illuminate the emergence of humanity in an extremely posthuman and postsingular landscape, arguing that one must understand humanity as not entirely separate from posthumanism. Instead, humanity should be considered a specific case, or limit case, of the broader posthumanist concept. The form of humanity that arises from the boundaries of an extreme posthuman state of evolution will not mirror the pre-posthuman state; instead, it will transform into a more comprehensive, inclusive entity. The analysis of these three novels will illustrate how Rajaniemi's work does not entirely dismiss human agency. Instead, it recontextualizes and reshapes it within a dramatically different posthuman setting.

**Keywords:** posthumanism, science fiction, Rajaniemi, Jean le Flambeur, humanity, mind-uploading

## 1. Introduction

The article will attempt to analyze Hannu Rajaniemi's *Jean le Flambeur* trilogy to show how humanism and posthumanism are truly not two mutually contradictory and conflicting ideas; rather, humanity can be construed as merely the limit case of posthumanity where upon reaching the peak of posthuman glory, humanity seems to arrive in a transformed form. Rajaniemi's trilogy comprises the novels *The Quantum Thief* (2010), *The Fractal Prince* (2012), and *The Causal Angel* (2014). While the theoretical framework for this study is multifaceted, the primary perspective derives from Iain McGilchrist's concept of 'limit cases', as detailed in his book *The Matter with Things* (2021). McGilchrist explores a myriad of intricate phenomena and their emergent nature, critiquing reductionist interpretations. He perceives illness as "a limit case of embodied experience" (406), the inanimate as "a limit case of the animate, as to see life as a peculiar subset of inanimacy" (1479), and a series of other phenomena viewed in similar contexts.

According to McGilchrist's hypothesis, complex phenomena should not be seen as reducible to a series of simpler events. Instead, less complex phenomena should be considered special or 'limit cases' of their more complex counterparts. These limit cases can be derived by constraining the complex with several limiting conditions. In this study, we explore how the simpler aspect of humanism can emerge from the multifaceted phenomenon of posthumanism at crucial junctures.

In instances where the typically dynamic and open posthuman culture becomes rigid, stifling novelty or alternative possibilities, these constraints facilitate the emergence of humanity. However, this new form of humanism is not contradictory to or in opposition to the posthumanism worldview. Instead, it is inspired by and draws sustenance from various posthuman tropes, representing a broader, more inclusive, and expansive form of humanism.

Before delving into the relationships between humanism and posthumanism through various critical lenses, we will first briefly familiarize ourselves with the main storyline of the three novels in the *Jean le Flambeur Trilogy*.

This research project delves into the *Jean Le Flambeur* trilogy penned by Hannu Rajaniemi, a Finnish American author. The trilogy initiates with *The Quantum Thief*, portraying Jean Le Flambeur, an aristocratic criminal, caught in an eternal paradoxical game of the Prisoner's Dilemma. The narrative explores the interplay of his multifaceted selves existing in quantum branches of alternate realities, leading to the ultimate goal of regaining his lost memories and hence his humanity. Mieli, a human character of Oortian origin, assists Jean in escaping this paradoxical confinement, compelling him to execute a final monumental theft. Guided by Joséphine Pellegrini, a deity-like figure and founder of the mind-uploading agency Sobornost, Mieli and Jean journey to Mars' Moving City, the Oubliette. Their adventure coincides with the quest of detective Isidore Beautrele, who seeks to apprehend rogue Sobornost agents involved in the theft of uploaded minds.



The narrative proceeds in *The Fractal Prince*, where Jean and Mieli persist in their Martian escapades. Mieli makes a pledge to Pellegrini to facilitate the creation of an infinite number of her clones in return for assistance in rescuing Jean. The novel immerses readers in a postsingular universe teeming with rival posthuman factions, mind-uploading agents, clones, alter egos, Sobornost entities, simulations, and a plethora of hyper-aggressive, obscenely potent artificial intelligences.

In the final novel, *The Causal Angel*, the story unfolds with the separation of Jean le Flambeur and Mieli following the destruction of their sentient spaceship. The narrative escalates until the entire Solar System spirals toward an inevitable posthuman war between the Sobornost and the Zoku.

Rajaniemi's literary creation bewilders readers with his lavish and grandeur-infused posthuman and post-singular universe. It houses a diverse array of hyper-advanced mind uploading and consciousness replicating technologies, enigmatic jewel-like post-singular artifacts, clones of posthuman empire founders dispersed across the Solar System, enhanced bodies of the mighty posthuman upload collective, self-altering nanobots named utility fogs, a neutrino-mediated telepathic messaging network, virtual reality domains known as spimescapes, and celestial bodies composed purely of computronium. In such a posthuman environment, traditional humanity is expected to either be nonexistent or thoroughly marginalized, thus appearing inconsequential. However, this research proposes that a detailed examination of Rajaniemi's trilogy reveals the presence and significance of human interests. This perspective is better appreciated by considering humanism as a specific case within the larger posthuman state of existence. Consequently, the notion of a technologized, cyborgized human submerged in an expanding techno-culture in a posthuman society, although challenging for the general audience to identify with, does not negate the coexistence and interconnectedness of humanism and posthumanism.

## 2. Theoretical and Textual Critical Frameworks

Many see posthumanism as a critique or even a rejection of humanism's central tenets. Posthumanist thought often problematizes humanism's anthropocentric worldview and the binary distinctions it draws between humans and non-humans (including animals, machines, and other forms of life). Posthumanism tends to embrace complexity, hybridity, and the blurring of boundaries, often suggesting that the human/non-human distinction is more fluid and less absolute than humanism suggests.

The relationship between humanism and posthumanism has been explored in many significant critical works:

Katherine Hayles's *How We Became Posthuman* (1999): Hayles discusses the evolution of the concept of the posthuman, arguing that it represents a significant shift in our perception of the human. She sees the posthuman as an opportunity for the deconstruction of the liberal humanist subject and for the critique of human exceptionalism.

Donna Haraway's *A Cyborg Manifesto* (1985): Haraway's seminal essay presents the figure of the cyborg as a challenge to traditional humanism. The cyborg, a blend of the organic and the technological, undermines the clear distinctions that humanism draws between humans and machines and between nature and culture.

Rosi Braidotti's *The Posthuman* (2013): Braidotti explores the implications of posthumanism for our ethical and political self-understanding. She suggests that posthumanism offers a new way of conceptualizing human agency that goes beyond individual human subjects, encompassing a more-than-human world.

Cary Wolfe's *What is Posthumanism?* (2010): Wolfe's work focuses on the implications of posthumanism for fields such as bioethics, cognitive science, and environmental ethics. He explores the posthumanist critique of humanism and discusses the need for a post-anthropocentric thinking.

Thweatt-Bates's conceptualization of posthumanism encapsulates entities such as "genetically enhanced individuals, artificial beings or androids, uploaded consciousnesses, cyborgs and chimeras (mechanical or genetic hybrids)" and more (2012, 1). These entities significantly populate Rajaniemi's posthuman trilogy. In such a posthuman domain, conventional humanity may either be absent or severely marginalized and hence seemingly insignificant. Benjamin underscores the stark disparity between Rajaniemi's envisaged postsingular future and our current reality (2016, 206), suggesting that a preliminary interpretation of the novels may reveal an apparent lack of human interests.

In a similar vein, Herbrechter discusses the "technologization and cyborgization of the human and its immersion within an expanding technoculture" within a posthuman society (2013). This perspective poses a challenge for mainstream audiences to identify or align themselves with the motives and actions of posthuman protagonists. This difficulty is echoed in Raets's critique of Rajaniemi's literature, noting that "many of the characters are hard to relate to for us present-day, non-augmented, ordinary humans" (2011).

Conversely, Tori Truslow commends Rajaniemi's second book in the series as a remarkable example of hard science fiction that constructs an impressively imaginative posthuman future. It contains fascinating elements such as mobile Martian cities and warrior societies descended from MMORPG guilds (2013). Shawn Roberts, in his review of the novel, lauds, "The world of *The Fractal Prince* is a far-flung future that is utterly alien. That sense of wonder is the reason to read this book" (Elitist Book Reviews. "Review: *The Fractal Prince*"). Similarly, Niall Alexander extols Hannu Rajaniemi as "one of the smartest and most exciting writers working in science fiction as we speak" in *Tor* (2014). Allen Stroud in *SFbook* also

acknowledges that Rajaniemi demonstrates exceptional craftsmanship in devising a "future reality that is difficult for us to imagine" (SFBook.com, 2015).

Before delving into the textual analysis, we should discuss different critical viewpoints that deal with the complex, peculiar and multifaceted relationship between humanity and posthumanity. Traditionally, humanism is associated with an anthropocentric perspective where the entire worldview of the human subject is constructed around an objective representation of the world, and as Marc Mela has pointed out, "posthumanism implies distancing ourselves from a humanism founded around a conception of the technical human"... which "does not necessarily imply a rejection of technology", but should instead be seen as an exhortation to adopt a post-anthropocentric worldview (2019). Carole Guesse has also opined how the relationship between posthumanism and humanism has been a matter of great critical and philosophical debate and concludes that "posthumanism certainly cannot be considered as a mere continuation of humanism" (2019). Maryanne Wolf also cautions about the "potential loss of our essential human qualities" in a ubiquitous posthuman atmosphere (2016). However, in this study, we try to build our textual analysis more on the lines of Halberstam and Livingston's viewpoint regarding this relationship between humanity and posthumanity. Halberstam and Livingston have opined, "The posthuman does not necessitate the obsolescence of the human; it does not represent an evolution or devolution of the human. Rather it participates in redistributions of difference and identity" (1995). Likewise, this study endeavours to show that despite this cold, distant and baroque worldbuilding, Rajaniemi's *Jean le Flambeur* trilogy does not relish in the obsolescence of the human but instead asserts the power of human emotions and human agency, which continue to be the underlying driving force behind much of the primary action. Additionally, it is important to note how various thinkers have pointed out the impossibility of escaping the humanist paradigm merely by an excess of technologization of humanity. According to Herbrechter, "a purely technology-centred idea of posthumanization is not enough to escape the humanist paradigm" (2013). In the 'Preface' to his *Sapient Circuits and Digitalized Flesh*, Gladden also emphasizes the notion of the transformation of human agency through "encounter with new forms of artificial and hybrid human-synthetic agency" (13). Also, Steven Connor states, "to become human is always to become more, or less, than human" (2003). In Rajaniemi's apparently alien and inscrutably complex and opaque posthuman universe, we shall see how humanity will emerge from the posthuman core, albeit in an augmented and transformed form. Now, it would be wrong to expect this transformed humanity to be a replica of ourselves, especially when the posthuman future itself is so radically different from ours as to be bordering on being incomprehensible. As Henri Lefebvre warns us, "But should we in turn wish to 'look into the future' and form an image of what it will be, there is one childish error we must avoid: *to base the man of the future on what we are now*, simply granting him a greater quantity of mechanical means and appliances" (1991). Therefore, simply viewing posthumanism as an extension and expansion of a mechanically augmented humanity would not be enough; rather, we should see posthumanism as a universal phenomenon in Rajaniemi's universe and then try to constrain humanity from this posthuman universe by acknowledging the less complex humanity as the special case of the more complex phenomenon of posthumanity, which makes its presence felt only in certain special situations.

### 3. Ascending the Extremes of Posthumanism

Rajaniemi's novels intricately architect a profoundly posthuman, post-singular milieu where standard humanity is often marginalized or obscured. His first novel, *The Quantum Thief*, occurs centuries after technological singularity - an era characterized by sentient machines and a struggle among posthuman clans for dominance over posthuman technologies. Dominant clans Sobornost and Zoku epitomize posthuman entities, with Sobornost's Guberniyas - planet-sized, computronium-constituted machines traversing the Solar System, embodying one of the most extreme instances.

Sobornost aims to simulate and clone everything they encounter for potential resurrection, while the Zoku community upholds the sanctity of human minds and the quantum no-cloning theorem's essential features. The protagonist, Jean, embroiled in the Iterative Prisoner's Dilemma, experiences an erosion of his human self as he contends with his quantum prison's multiple versions.

Sharp parallels exist between Rajaniemi's first novel and Neil Sharpson's debut novel, *When the Sparrow Falls*, where dystopian far-future settings under totalitarian control are common. The concept of uploaded consciousness serves as a tool for control and surveillance in both texts. Taylor, in "Five Books about Being a Cog in the Dystopian Machine," succinctly compares the two novels: Rajaniemi employs high technology for surveillance, while *When the Sparrow Falls* resorts to Cold War tactics – bugs and brainwashing (2021).

A character akin to Jean le Flambeur is Belisarius from *The Quantum Evolution Series* by Derek Künsken. As a quantum-enhanced posthuman conman, Belisarius executes an astounding heist in the trilogy's second book, *The Quantum Garden*.

In Rajaniemi's first novel, *The Quantum Thief*, readers witness a meticulously crafted posthuman world introduction. The narrative includes Sobornost, the upload collective ruling the Inner Solar System, immortal minds such as the Archons, and the Zokus' quantum entangled minds. The majority of humanity seeks virtual immortality via soul cloning preserved in

different bodies, termed Gogols. The Oubiette authorities present their project of uploaded consciousness as a ticket to paradise and virtual immortality, luring citizens into an abstract world of hyperreality.

Clarke et al. portray such a world where appearances and illusions eclipse reality (2008). Hayles also forewarns of a posthuman world seduced by "fantasies of unlimited power and disembodied immortality" (1999) in *How We Became Posthuman*. Throughout the novels, we witness various posthuman clans' competition to propagate their worldview as superior. This rivalry is reflected in Richard K. Morgan's *Altered Carbon*, where wealthy individuals switch bodies through consciousness uploading nearing their death. The Oubiette stores its citizens' consciousness to command them and maintains public Exomemory banks for individuals to access stored memories - an extension of control under the guise of progress.

#### **4. The Dehumanizing Impact of Posthuman Technologies: A Study of Oubiette Exomemory:**

This section explores the intricate architectural beauty of Oubiette Exomemory pieces and uncovers the dehumanizing influences hidden beneath their glossy veneer. The Exomemory technology, while representing regularity and fixity, lacks the capacity for change, making it susceptible to manipulation by power-hungry posthuman factions. This part delves into the struggles of various posthuman characters, particularly Josephine, who grapples with the loss of humanity and the desire to reclaim it. Furthermore, one also finds the societal implications of Oubiette's posthuman regime, which promised a techno-utopia but resulted in deep-seated inequalities and discrimination. Through an analysis of the characters' experiences and the dystopian world they inhabit, the section illustrates the challenges and contradictions arising from advanced posthuman technologies.

The Oubiette Exomemory pieces are renowned for their architectural beauty, but beneath their symmetrical veneer lie profound dehumanizing influences. Exomemory technology is characterized by regularity and fixity, rendering it resistant to change. However, this rigidity makes it vulnerable to the manipulations of power-seeking posthuman factions. In the trilogy, the emergence of humanity is explored as a limit case of universal posthuman evolution. Notably, even immensely augmented posthuman protagonists like Josephine face struggles to maintain their humanity. This section seeks to investigate the effects of posthuman technologies on human consciousness and society, as depicted in Rajaniemi's work.

The Exomemory machines and other transformative technologies in the trilogy alter the perception of reality and lead to a sense of self-awareness different from that of non-augmented humanity. Isidore, a human protagonist, comes to realize that aspiring to become a posthuman hero risks sacrificing essential human aspects. Jean's experience with posthuman technologies similarly challenges his humanity, as he struggles to retain her identity amidst powerful machines. These instances demonstrate the fine line between humanity and posthumanity in the narrative.

Oubiette, built on promises of a techno-utopia that eliminates distinctions between classes, ultimately falls prey to its own system of discrimination and division. The wealthy and privileged sections of society, as well as alien visitors, can hide their memories using various privacy options, while the laboring Martian individuals endure dehumanizing conditions with minimal privacy protection. This creates an environment of inequality and oppression despite the purported intentions of Oubiette's societal structure. The Oubiette culture relies on indoctrination and mind-reading from an early age, conditioning children to accept the deprivation of private thoughts as natural. The mind-uploading and re-embodiment process, especially during The Quiet period, result in significant dehumanization. Returning individuals find it challenging to readjust to their original human selves and often choose to remain in machine-like states, further illustrating the consequences of posthuman technologies on individual identities.

Mieli and Isadore, posthuman agents for the Sobornost, endeavor to retain their humanity in a posthuman world. Their struggles reflect the resistance of posthuman technologies to individual efforts to reclaim humanity. The Zokus, an alternative posthuman faction, use virtual reality to construct a more human reality, emphasizing the importance of human emotions, empathy, and cooperation.

Rajaniemi's trilogy explores the complex interplay between posthuman technologies and humanity. While the architectural beauty of Exomemory pieces has mesmerized, the dehumanizing consequences they generate are undeniable. The posthuman regime in Oubiette exemplifies the failure of a techno-utopia, as discrimination and oppression persist. Characters like such as Josephine, Mieli, and Isadore exemplify the struggles to retain humanity amid a hyperreal world filled with posthuman technologies. This study sheds light on the multifaceted implications of posthuman technologies in shaping individual identities and societal structures.

#### **5. The Anticipation of Earth's Demise**

As the second volume of the trilogy concludes, we witness Mieli's prediction of Earth's devastation, incited by Matjek Chen's decision to convert Earth into a computronium sphere. The novel portrays the cataclysmic transformation of Earth and the societal and economic collapses that follow, which drive Zoku and Gogols to desert the planet.

#### **6. The Collapse and the Emergence of Non-human Dragons**

In the third installment, *The Causal Angel*, the Collapse is described from the perspective of the mystical Kaminari jewel. This catastrophic event is defined as a global failure of quantum markets that led to mass exodus. Additionally, Chen's disastrous attempt to create sentient bots, known as Dragons, becomes a pivotal point in this posthuman atmosphere.

## 7. Living in a Posthuman Environment

Navigating in a posthuman world demands perpetual vigilance. The characters' emotional vulnerabilities could lead to their demise; thus, characters like Mieli and Isadore are always ready for combat, showcasing impressive physical and mental prowess. The characters' choices seem to possess profound implications for continuing, modifying or discontinuing their posthuman existence.

## 8. The Search for Independence and Autonomy

Against this backdrop, the characters reject the two choices offered by the rival clans - the Sobornost and the Zokus. They aim for autonomy and independence as human beings. The sacrifices they make and the hurdles they face on this path form the crux of the action in the latter half of the trilogy.

## 9. Interrelationships and Emotional Bonds

As the narrative unfolds, intricate relationships between the characters emerge. Isidore is revealed to be another version of Jean, and Mieli, oblivious of her emotional attachment to Jean, continues to assist him. The complex dynamics between these characters and their individual journeys towards reclaiming their humanity are what drive the trilogy to its desired end.

*Jean le Flambeur Trilogy* offers a profound exploration of posthuman existence. By examining the characters' journeys, the section addresses the complexities of a posthuman society and the struggle for maintaining humanity within it.

## 10. Assertion of Humanity

The anonymous reviewer in *The English Student* speaks of "Rajaniemi's vision of an intricate posthuman solar system filled with unimaginably advanced technology", as depicted in his novels ("Review: The Causal Angel"). However, it is interesting to see how Rajaniemi masterfully incorporates an undercurrent of human interest, especially in the portrayal of scenes involving Jean le Flambeur and Mieli. Adam Roberts observes that *The Fractal Prince* "addresses some of the largest issues – immortality and death, love and betrayal, the power of story - but it feels more like an intricate, bejewelled device than a deathstar" (2012). Commenting on the thoroughly posthuman setting of Rajaniemi's trilogy, Samantha Nelson states for *The A.V. Club*, "Rajaniemi uses plenty of genre tropes, like technology that eliminates resource scarcity and humans that have become effectively immortal or have augmented their bodies so much that they've become superhuman" (2011). Garfield Benjamin reflects on the posthuman background of Rajaniemi's trilogy and writes, "The setting of the series is a universe in which diverse conceptions of posthumanity have emerged from the development of technologies that enable uploaded consciousness" (2016). In his book *The Cyborg Subject* (2016), Benjamin further reflects how the trilogy offers "a fully posthuman framework" (185), and humanity, as this article would like to contend, should be seen not as something different from posthumanity but as a special or a limit case of posthumanity and a complementary strand to the posthuman culture. In this regard, Iain McGilchrist's hypothesis about the emergence of some special or limit cases should be considered extremely valuable, according to which perspective humanism is not more general than posthumanism but instead should be interpreted as a special case when posthumanism becomes too complex and closed to evolve any further.

This section reviews the intertwined aspects of posthumanism and humanism as depicted in Jean le Flambeur Trilogy by Hannu Rajaniemi. The part dissects the complexity of Rajaniemi's baroque narrative technique, which employs comprehensive depictions of far-future technologies and a diverse array of neologisms. Concurrently, the section underscores the presence of human interest amidst the posthuman narrative landscape.

Rajaniemi's *Jean le Flambeur Trilogy* unveils a complex vision of a posthuman society, abounding with state-of-the-art technology. This intricate posthuman milieu often underscores the seeming insignificance of humans within a predominantly posthuman culture. However, Rajaniemi skillfully intertwines elements of human interest within the narrative, notably through the portrayals of characters Jean le Flambeur and Mieli.

## 11. Human Interest Amidst the Complexity of Posthumanism

Rajaniemi's work has garnered acclaim for addressing substantial themes such as immortality, death, and love within the context of the intricate, technological milieu. His trilogy presents a unique scenario where posthuman elements coexist seamlessly with human interest. The inherent humanism within the narrative is particularly evident in the character arcs of Jean and Mieli.

## 12. Perception of Posthumanism and Humanism

Rajaniemi's trilogy offers a conception of posthumanity emerging from the advancement of technologies that facilitate uploaded consciousness, thereby providing a comprehensive posthuman framework. However, the analysis of the trilogy shows that humanism should not be viewed as antithetical to posthumanism but as a complementary component within the larger posthuman context.

### 13. Humanism as a Specific Subcase of Posthumanism

From this perspective, humanism does not oppose posthumanism; rather, it manifests as a specific subcase when posthumanism reaches a level of complexity that inhibits further evolution. This proposition is depicted through Jean's narrative arc, as he transitions from a captive in the Prisoner's Dilemma to a character exhibiting superhuman and posthuman traits.

### 14. Fusion of Human Interest in a Posthuman Environment

In a thoroughly posthuman culture, generating empathy or relatability for posthuman or superhuman protagonists can be challenging. In this context, Rajaniemi's prowess in infusing human interest into his characters is particularly noteworthy. Jean's transformation, from his captivity in the Prisoner's Dilemma cage to his evolution into a superhuman, serves as a potent illustration of this fusion of humanism within the posthuman narrative.

*Jean le Flambeur Trilogy* provides an insightful exploration of the interplay between posthuman and human elements. Rajaniemi's ability to juxtapose and merge these seemingly divergent elements within his elaborate narrative emphasizes the need to consider humanism as an integral, rather than separate, facet within a posthuman framework.

In this context, we may refer to Garfield Benjamin's words to capture Jean's state of mind when the entire world seems to be a cruel joke or a meaningless computer simulation: "Therefore, located between the extremes of posthuman transcendence and human extinction is argued a near certainty that the currently perceived physical world, and indeed, the entirety of functioning consciousness, is in fact a computer simulation" (2016). Jean is painfully aware of both the endless possibilities as a posthuman being and the danger of dying as an imprisoned ordinary human who is trying desperately to survive in a quantum prison.

He is also not sure whether the feelings he feels are entirely his own or whether they too have been programmed by his posthuman captor Josephine herself: "It is tempting to stay here, to do something on a human scale, to build something. That must be what *he* felt when he came here. Or maybe that's how she made him feel" (Rajaniemi, 2010). Nevertheless, the study will try to show that Rajaniemi's novels actually portray the relevance and importance of humanity even when the worldview is extremely and overwhelmingly posthuman most of the time. Often, being human is not the best option for the characters when they are forced to tackle the most adverse conditions. Jean once laments the fact that he has not yet transcended the basic human limitations: "I curse the fact that I can't override the strictly baseline human parameters of the body as I lean on my knees, wheezing, the sweat stinging my eyes" (2010). Sometimes, while trying to cling to his fragile human core of being, Jean also pines for his godlike status of a posthuman thief when he could do the impossible: "There must have been times when I flicked from one identity to another, posthuman, zoku, baseline, Sobornost. In addition, that makes me want to be the god of thieves again, more than anything" (2010, 116). However, such desires are not enough to wean him away from his love for Mieli, which is one of the most genuine human passions that suffuses the narrative with human warmth. When Jean decides to discard his posthuman augmentations to revel in his more basic human qualities, he feels as if he is left with "no trace whatsoever of my Sobornost body's more superhuman capabilities" (2012). The truly advanced posthuman exoskeletons and sentient combat suits seem to function even more efficiently in the absence of any human to control them from inside: "The suit-thing is whole again, in a more humanoid shape this time. Mieli reviews its specs. New weapons are forming beneath its skin. It contains nuggets of zoku picotech, able to translate quantum information into matter, and an antimatter power source. In addition, without a fragile human inside, even controlled by a warmind with no experience of flesh-combat, it is orders of magnitude faster than her" (2012). However, in the absence of "a fragile human mind", it is not able to distinguish between right and wrong and can transform into a weapon of pure, mindless destruction. Such a catastrophic event happened when the utterly inhuman phoboi machines and then dragons emerged and wrought absolute havoc over everything. It is as a result of much such uncontrolled proliferation of postsingular, sentient weaponry like phoboi and Dragons that a great many posthuman civilizations were laid to waste. During the onset of the Great Collapse on both Earth and Mars, we see how increasingly inhuman technologies contributed to the downfall of great posthuman civilizations. Sometimes, when posthuman characters such as Mieli come to hear the human tales of sorrow, suffering, desire and loss, it becomes impossible for them not to desire to become human again. Being human inevitably demands that one pay heed to the memories of the past and become acutely aware of both the pains and pleasures of the past, which is what the posthuman rulers of futuristic dystopias thoroughly detest: "More ghuls came out from the tombs, blinking against the daylight, whispering their own stories, a hollow chorus. Before she could flee, they were all around her, touching, pressing against her, a muttering mass of filthy humanity" (2012). However, on a more positive note, posthumanity offers one to express oneself in almost an endless array of becoming. Posthumanity is not about any final and stable

attainment of a fixed state of being, but it is more like a process or an endless process of becoming, and Jean admits how he feels thrilled when he speculates on the possibility of endless states of becoming in his posthuman avatar: "Being about to become someone else is a thrilling feeling, a tickle of possibility in my gut" (2010). The novels describe how when a civilization grows too distant, mechanical and inhuman, it collapses and disintegrates, but when the posthuman cultures combine the best of both human and mechanical, they produce the best results. Humanity seems to make its presence felt when posthumanity fails to foster new possibilities of becoming, and in Rajaniemi's novels, we see how characters such as Mieli, Jean, Josephine and Isidore grow ever more conscious of the value of their humanity and attempt to preserve it in the wake of endless waves of posthuman threats. Many of the characters strive to attain a posthuman state of being primarily because they have felt the human persona to be obsolete, ineffective and sluggish. Before discovering that he is Jean's own son, Isidore has always aspired to be one of the posthuman Tzaddikims or anonymous vigilantes or crime fighters. We see how Isidore attempts to erase the memories of her loved ones to become more focused and inhumanly strong, but his humanity refuses to keep dying and instead continues to be his guiding force: "As Isidore erases the last of the gevolot between himself and his loved ones and their courage and love fills him, he/they suddenly know what must be done" (2014). Although initially, Isidore's love for Pixil appears superficial, the more the narrative progresses, we see how it proves to be a source of constant motivation and guidance for Isidore. In some of the most tender moments, Isidore is seen clinging to Pixil for emotional support: "For a moment, he buries his face in Pixil's hair, holding on to her warmth. Then, he forces himself to open his eyes, slowly easing his hand out from underneath her" (2010).

Throughout the series, on numerous occasions, Joséphine is referred to as "The Sobornost goddess" herself and quite aptly so. In the novel *The Causal Angel*, we find how "Alone on the timeless beach, Joséphine Pellegrini finds herself disappointed by the end of the world" (2014). While communicating with other posthuman figures such as Jean, Pellegrini manipulates the Hawking radiation from a black hole and creates her image out of the black hole's radiation. In her full-fledged posthuman avatar, she speaks in gamma rays and assumes the form of "a towering figure of blue fire, wearing a necklace of stars" (2014). Pellegrini and her countless clones or gogols seem to strive for the attainment of infinite perfection and immortality only to realize the futility of their ambition in the end. The more Pellegrini remembers her past love for Jean, the more desirous she grows to discard her posthuman avatar and return to Jean's warm embrace as his lover by her side: "She turns to Jean to thank him for a beautiful gift, to kiss him like she once did, to tell him how much she loves him" (2014, 140). Pellegrini as well as her Sobornost Co-Founders such as Chen and Sasha, seem to have realized "the transcendental, posthuman possibilities of the technological enhancement" to the maximum, and now both suffer from an excess of self-centredness and hyper-narcissism (Benjamin, 2016). Žižek refers to such a situation as an "abyss of pure subjectivity" when "the ultimate traumatic Thing the Self encounters is the Self itself" (2016). The situation that Pellegrini finds herself in when she attains true immortality in her extreme posthumanist avatar can also be summed up in Žižek's words in *The Ticklish Subject*, where he ponders a situation when "immortality, not death, becomes the ultimate horror" (2009). Every event, every outcome and every possibility to Pellegrini is part of her programming and calculation until she realizes the value of letting things unfold in their own way without any intervention and lets Jean and Mieli chart their own course. She proclaims in the end, "There is no greater love than a maker's for the things she makes. Especially when they grow to be something she never imagined" (2014). All throughout the first two books, she appears as a godlike figure who seems to set in motion the entire plan of freeing Jean from the Dilemma Prison, and it is only when she is in the room with Jean that we get to appreciate her more tender and human aspect. Sometimes, like a timid lover, Pellegrini often fails to remember that she is a posthuman goddess and attempts to converse with Jean through the avatar of Mieli. It is when she decides to grant Mieli her wishes of being cloned and leaves her with his love Jean that she becomes most human and interesting to the audience. When Sasha, the Engineer-of-Souls, creates for Joséphine Pellegrini the gogol named Hunter for locating and detaining Jean and Mieli after they escape the Schrodinger's Box, the former realizes that "even after three centuries and billions of branchings", Joséphine still harbors strong feelings for Jean le Flambeur (2010). When Joséphine realizes that the other Founders could come after her since she is helping Jean and Mieli escape, she seeks the help of Matjek Chen, who in turn seeks help from Pellegrini to regain his innocent human self of childhood days in order to tap into the magical Zoku device called the Kaminari jewel.

The creation of self-replicating phoboi bots during the Martian Civil War also resulted in the total destruction of Martian societies because these were totally inhuman. Sometimes even the moving cities and machines such as the Oubliette itself desire to attain something akin to humanity, but their attempts are thwarted by attacks from a myriad of devouring machines: "They contain the trail of new life behind the city, a paintbrush streak of synthbio fields and terraforming machinery. Like its brothers and sisters, the city tries to paint Mars green again. However, in the end, the phoboi always come (2010, 99). However, in the end, with the defeat of the self-replicating predatory machines called phoboi, we see the city becoming alive again. Martian society at Oubliette allows one to inhabit a pure human body for only a limited amount of time, and upon the expiration of that period, he/she has to serve as a mechanoid laborer in the Quiet phase. Toward the end of the second novel, we see how a section of the Quiet labourers is finally planning to rise in rebellion against the totalitarian Oubliette government for reclaiming their humanity. The Oubliette authorities have a device called 'a Watch', which "stores Time as quantum cash – unforgeable, uncopiable quantum states that have finite lifetimes, counterfeit-proof, measures the

time an Oubliette citizen is allowed in a baseline human body" (2010). It is only when the posthuman culture learns to imbibe the essence of true humanity in itself that it produces the most desiring result, which is evident in the creation of the garden of minds by the Engineer-of-Souls in the third book. Additionally, on several occasions, we see how even the most formidable posthuman entities attempt to recreate humanity in all its glory and often quite successfully. The Engineer-of-Souls, called Sasha by Josephine Pellegrini and Matjek Chen, seems to be utterly distant throughout the trilogy and seems busy manipulating the events of spacetime with its posthuman powers. However, when Sasha learns to immerse itself in its creation by learning to empathize with human creations, the situation seems to change. Also, in flashbacks, we become aware of Pellegrini and Chen's backstory as human beings on Earth, and toward the end, we get a hint that they have developed a sympathetic understanding of humanity and are also painfully aware of their now lost humanity. Chen seems to be pining for his innocent avatar from childhood when a copy of his mind was uploaded by his parent to a computational heaven managed by one Jannah Corporation. Chen was only a seven-year-old boy back then, and now that innocence is the only thing that can help him unlock the secrets of the mysterious Kaminari jewel. Driven by their interest in humanity, the posthuman founders proceed to save the human race from an imminent destruction that is to ensue as a result of their war with the Zokus. In the past, their war with the Zoku resulted in the destruction of Jupiter with the creation of a singularity in an event known as the Spike. Similarly, in the case of Josephine Pelligrini too, we see how when she decides to create more clones of herself to become immortal and remain eternally young, it becomes a futile exercise, and she is overcome with a sense of deep disillusionment and frustration. However, when Mieli decides to sacrifice her individuality and uniqueness for the sake of her love Jean and allows Josephine to create clones of her, she truly becomes immortal in the minds of the future generations since hers is a sacrificial act done in the name of love. Even though a thoroughly augmented individual, Mieli learns to cherish her fragile human core of being when she spends time with Jean. For Jean, Mieli in her true posthuman avatar is nothing short of a goddess: "In the center, there is the axis, a little trapped singularity, floating in a cylindrical pit, a falling star, suspended. That is where the goddess lives" (2010). However, when Mieli spontaneously dons her posthuman avatar and interacts with Jean, she appears to be more human than when she consciously strives to appear human: "Strangely, she looks more human here than when she chooses to manifest to her on her own. The lines on her face and neck and the corners of her eyes are visible" (2010).

### **15. Intricacies of Mieli's Emotional Journey in the Jean le Flambeur Trilogy**

Throughout Rajaniemi's Trilogy, Mieli is portrayed as a posthuman character consumed by a desire to resurrect her deceased lover Sydän, lost to a singularity on Venus. The second book in the series provides a deep dive into Mieli's enigmatic past, revealing her passionate love for Sydän as a driving force behind her pursuit of dangerous and formidable endeavors. Despite revelations in the third book suggesting that Sydän is a construct devised by Josephine, Mieli's affection for Sydän remains a compelling and authentic human aspect throughout the narrative. Their love, symbolically set against the backdrop of the cold, mechanistic culture of the advanced diamond minds, introduces a palpable sense of human warmth and emotional depth.

### **16. Human Warmth and Artistic Endeavors in a Posthuman Environment**

A notable review by Tori Truslow in "Strange Horizons" emphasizes the significance of Mieli and Sydän's artistry within the dark, complex machinations of the story's gods. Their shared quest for artistic expression adds a compelling layer to Mieli's motivations. In *The Causal Angel*, Mieli's vivid memory of Sydän's last moments before being consumed by the singularity underscores the emotional impact of their bond.

### **17. Mieli's Emotional Evolution and the Emergence of Love**

As the narrative evolves and Mieli's love for Jean deepens, she grapples with and eventually accepts the revelation of Sydän's true origin. The resulting love between Mieli and Jean poses a threat to Josephine, prompting her to consider ending their world. However, Josephine's own human feelings for Jean prevent her from harming Mieli. Despite realizing that her lifelong pursuit of her lost love might have been in vain, Mieli's acceptance of her newfound love for Jean and her joy in his freedom signifies a critical turning point in her character development.

### **18. Mieli's Posthuman Existence and Embrace of Humanity**

The narrative concludes with Mieli expressing herself through song, creating a new universe within her notes. This representation aligns with Fuller's (1970) assertion in *I Seem to Be a Verb*, suggesting an evolutionary process rather than a static existence. It also speaks to the potential expansiveness and fluidity inherent in a posthuman context, advocating for a state of becoming rather than just being.

### **19. Humanization within a Posthuman Context**

Rajaniemi's work presents a compelling case for humanizing posthuman characters. For instance, the Engineer-of-Souls creates human-like virtual worlds, incorporating elements of human warmth and empathy. Even the Archons, seemingly emotionless entities tasked with maintaining the Dilemma Prisons, respond to genuine human warmth.

## 20. Personification and Emotional Expression in Nonhuman Entities

Rajaniemi's work often ascribes human-like emotions to non-human entities, such as Mieli's spaceship Perhonen. The spaceship's emotional progression toward understanding love and affection outside the bounds of its programming instructions underscores the infusion of humanity into posthuman constructs.

In essence, Rajaniemi's *Quantum Thief Trilogy* presents a rich exploration of the interplay between humanism and posthumanism. By delving into the emotional complexities of its posthuman characters, the trilogy highlights the potential for human warmth and emotional depth within a posthuman narrative context. It emphasizes the essentiality of emotional evolution and the infusion of humanity into posthumanism, demonstrating the value of a continuous state of becoming.

## 21. The Evolution/Devolution of Posthuman Entities:

This section investigates the evolution of posthuman beings and their relationship to humanity, as depicted in the trilogy with special focus on *The Fractal Prince*. It explores the intersection of posthumanism, humanity, storytelling, and memory. The analysis focuses on how characters evolve from common humanity to posthuman entities and how this evolution is expressed through storytelling and memory manipulation.

In a specific instance, *The Fractal Prince* portrays the narrative of how common humanity gradually transcended towards a godlike, posthuman existence. Initially, these newly ascended posthuman entities were revered as gods by unaugmented humans of subsequent generations. These entities, which evolved from humanity, exhibited an interest in their predecessor species. As described, they were laboriously imitated from mind to mind, and their existence was ephemeral and largely dependent on their hosts' cognizance. Ensuring their remembrance was critical; they enticed their hosts with promises of everlasting life and divine paradises. They thrived for a time, garnering the moniker "gods" (2012). However, these entities were eventually superseded by the more potent posthuman beings known as Sobornost, who over time grew increasingly detached from the ordinary human experience.

These original posthuman beings, known as the Aun, possessed the power to fulfil wishes on the condition of hearing the true stories of the wisher. This telling of stories led to a transformation in even mechanical beings, instilling them with deeply human emotions such as love, yearning, hope, and empathy. A parallel narrative can be found in Becky Chamber's Monk and Robot trilogy, where in the inaugural novel, *A Psalm for the Wild-Built* (2021), machines of Panga evolve into sentient beings and eventually disappear, leaving behind their stories as part of the mythology and folklore.

The essence of storytelling remains a significant element in *The Fractal Prince*, contributing a unique allure to the cyberpunk reconstruction of the Arabesque fairyland of Sirr. This narrative technique thrives even in the posthuman, post-singularity world, reminiscent of the layered narratives found in "The Arabian Nights". It is through these stories that trapped minds, or jinns, listen and manifest dreams into reality. Simultaneously, a woman named Tawaddud communicates with these enigmatic jinns using her stories, which trigger a longing in the jinns to once again take human form, despite the potential loss of their immortality. The lure of a corporeal human life appears to outweigh the risk.

This character, Tawaddud, echoes the protagonist Roger from Seanan McGuire's novel *Middlegame*. Roger employs the power of narrative to comprehend and interact with his environment, akin to Tawaddud. In Rajaniemi's "Fractal Prince", stories are further likened to the nanotech virus known as the Wildcodes. These viruses infuse posthuman entities with strong, uncontrollable human desires and fantasies, something deemed unacceptable in the post-cyberpunk desert realm. The narrative states: "Surely, the old men were tired, tired of the sapphire roughness of their skin, lost in the desert dreams that the wildcode brings" (Fractal 53).

In the dystopian world of *The Fractal Prince*, memories of Mieli's past and present loves offer a sense of wonder and human warmth amidst the decaying last city of Earth, menaced by a nanotech virus and the Sobornost masters striving to convert the remaining humanity into digital abstractions. Throughout the trilogy, the Zokus' probabilistic, non-linear, quantum mechanically orchestrated meta-reality offers a significant counterpoint to the Sobornost posthumans' calculated, deterministic, and contrived political simulations. When the worlds meet their end in the apocalyptic emergence of Spike-like singularity events, stories endure, inspiring successive human and posthuman generations to delve into their complex histories.

The distortion and corruption of memories pose significant hurdles to understanding and acknowledging the essence of genuine humanity. Paradoxically, being human implies acknowledging and appreciating the fluidity of memories. As one strives to reconcile gaps in their memories, the reliability and authenticity of those memories are jeopardized. This is seen with Jean in "The Quantum Thief", while Isidore and Mieli grapple with the fluidity and constructed nature of memories in "The Fractal Prince" and "The Causal Angel".

In *The Causal Angel*, Tawaddud remarks on Jean's solitude and inner conflict without Mieli: "a lonely man, a divided man...a man wrapped inside another creature" (2014). The third book uniquely humanizes Jean, transforming him from an imprisoned player in an endless loop of Prisoner's Dilemma variations into a vulnerable and relatable figure. As noted by Niall Alexander in his review for Tor, "Insights into who he was before he became the thief featured in this series do a great deal to add humanity to his larger-than-life character" (2014). We also see the return of the All-Defector gogol, an uploaded mind of Jean, which adds circularity to the narrative. The All-Defector is particularly formidable, as he never cooperates and always defects, but in the third book, he seems more human than ever before.

The progression of human warmth into posthuman hearts is also observed in the character of Gilbertine Shalbatan. Gilbertine carries a posthuman mind trapped in Schrödinger's Box in her exomemory, yet her humanity reasserts itself in dreams of her lover: "The dreams have been more frequent lately her own memories feel loose, uncomfortable..." (2010). Often, retaining one's humanity results in a decrease in posthuman powers. Jean describes this de-ugmentation process as an icy weakening of the mind and body: "I am back to my human self again. The memory of the extended senses and computational power is fading..." (2010). However, even the most advanced posthuman entities are mere machines without the invaluable gift of humanity.

## 22. Final considerations

This study primarily aimed to highlight that despite an atmosphere steeped in posthumanism, human elements rise triumphantly within the intricate narrative of Hannu Rajaniemi's trilogy. Even though initial impressions might suggest an overwhelming posthumanized environment seemingly devoid of human influence, a deeper exploration reveals how subtly and indirectly human elements influence the narrative. Fundamental human phenomena such as memory, death, betrayal, love, human agency, and human emotions underpin the otherwise complex posthuman universe presented by Rajaniemi. A cursory perusal might render the trilogy bereft of human interest, but a closer examination, particularly when viewing humanity as an exceptional case within an extreme posthuman landscape, allows us to recognize the subtle but unignorable human undertones. The persistent relevance of these human elements is a testament to their integral role in Rajaniemi's indulgently grandiose posthuman and post-anthropocentric world-building. Even within a milieu of extreme posthumanity, uniquely human interests emerge as the ultimate determining factors, subtly shaping the narrative trajectory. Thus, in the midst of the posthuman, the human still thrives.

## Ethical Considerations

Not Applicable.

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