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MARK MCCLELLAND'S *UPLOAD* (2012): THE PERILS OF LEAVING BIOLOGY BEHIND TO ACHIEVE VIRTUAL IMMORTALITY[1]

CARMEN LAGUARTA-BUENO
Universidad de Zaragoza
claguarta@unizar.es

ABSTRACT. In recent years and, in light of the latest developments in the field of neurotechnology, some critics have claimed that mind uploading could become technically feasible in a not-too-distant future. While transhumanist critics embrace this procedure and dream of a postbiological future in which human beings possess greater cognitive, emotional, and sensorial abilities, the critical posthumanists warn of the risks inherent to the idea of leaving biology behind to lead a virtual life in cyberspace. Significantly, these warnings reverberate in some twenty-first century cultural productions such as Mark McClelland's *Upload* (2012), a novel that is also representative of an emerging trend of SF novels written by tech professionals. Although the novel may seem to be at first a defense of simulated life, this work aims to prove that McClelland's narrative choices ultimately uncover a critical posthumanist view of embodiment as an essential part of human identity.

Keywords: Transhumanism, Mind Uploading, Critical Posthumanism, (Dis)Embodiment, *Upload*, Mark McClelland.

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UPLOAD, DE MARK MCCLELLAND (2012): LOS RIESGOS DE DEJAR LA BIOLOGÍA ATRÁS CON EL FIN DE LOGRAR LA INMORTALIDAD VIRTUAL

RESUMEN. En los últimos años, a consecuencia de los últimos avances en el campo de la neurotecnología, algunos críticos han afirmado que la técnica de 'transferencia mental' ('mind-uploading' en inglés) podría convertirse en una opción técnicamente viable en un futuro no muy lejano. Mientras los críticos transhumanistas ponen sus esperanzas en este procedimiento y sueñan con un futuro posbiológico en el que los seres humanos vean aumentadas sus capacidades cognitivas, emocionales y sensoriales, los poshumanistas críticos advierten de los riesgos inherentes a la idea de dejar atrás la biología para alcanzar la inmortalidad virtual. Estas advertencias se han visto reflejadas en algunas producciones culturales del siglo XXI, como por ejemplo *Upload* de Mark McClelland (2012), una novela que también es representativa de una nueva tendencia dentro de la ciencia ficción que engloba diferentes novelas escritas por profesionales de la tecnología. Aunque la novela puede parecer en una primera instancia un manifiesto a favor del método de transferencia mental, el objetivo de este artículo es demostrar que las estrategias narrativas utilizadas por McClelland revelan una visión poshumanista crítica del cuerpo como una parte esencial de la identidad humana.

Palabras clave: Transhumanismo, Transferencia Mental, Poshumanismo Crítico, (Des)Corporealización, *Upload*, Mark McClelland.

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1. INTRODUCTION: THE TRANSHUMANIST URGE TO POSTPONE AND TRANSCEND DEATH – AND ITS DISCONTENTS

Using science and technology to overcome our human physical, intellectual, and psychological limitations has been a fantasy in the minds of many scientists and science fiction (SF) writers during the last centuries. Nevertheless, it was not until relatively recently that these dreams of enhancement materialized into a coherent philosophical position and took shape as an organized philosophical and cultural movement. The philosophy of transhumanism – sometimes also referred to as "extropianism" (Ferrando 2013: 27) – emerged in the 1980s, bringing together a group of thinkers (philosophers, scientists, sociologists…) who shared a belief in "the possibility and *desirability* of fundamentally improving the human condition by means of science and technology" (More 2011: 137; emphasis added). Since then, transhumanism has gained strength in contemporary society. In recent times, it has even become well-known within the political sphere through the activism of Zoltan Istvan, a transhumanist philosopher and writer who also founded in 2014 the US Transhumanist Party. Transhumanists regard humanity as "a work in progress" (Bostrom 2005a: 4) and aim to put science and technology to the service of creating beings of greater intellectual capacity, memory, attention, and creativity, as well as of increasing human happiness levels. They also aim to use science and technology to create physically stronger human beings who are free of disease and live longer and healthier lives – and even become immortal.

The possibilities that the new technologies offer to reverse the aging process and eventually to overcome death have been indeed widely discussed in transhumanist circles (see Grey and Rae 2007; Bostrom 2005a; Bostrom 2005b; More 2014; More 2019). In his article "Transhumanist Values", Swedish philosopher Nick Bostrom – one of the main advocates of transhumanism – points to ageing as the major cause of death in the first-world countries and the root cause of dementia, disability, and illness. Bostrom then claims that one of the aims of transhumanism is to halt or reverse the aging process and radically extend the human health-span, which he defines as the healthy and functional period of one's life (2005a: 13). Transhumanists often regard nanotechnology, in both its current and future medical applications – namely tissue engineering, nanosurgery, targeted drug delivery, somatic gene therapy, germline genetic engineering, etc. (Ebbesen and Jensen 2006: 1-2) – as the chief technology that may, in a not-too-distant future, allow human beings to live longer and healthier lives.

Going one step further, some transhumanist thinkers have pointed at technology's potential to help human beings become immortal. So far, they have mainly placed their hopes in the cryopreservation and storage of human bodies in cryonic facilities and their eventual resurrection through advanced nanotechnology. Nevertheless, a few transhumanists envisage the yet more implausible scenario of human beings becoming immortal through transferring their consciousness – including their "thoughts, memories and feelings" (Hughes 2004: 101) – into computational software, a process that is commonly known as *mind uploading*. These critics, who are sometimes referred to as the "Digital Escapists" (Levchuk 2019: 81), are confident that future advances in the field of neurotechnology will make the whole process possible. In his work *Shaping the Fourth Industrial Revolution* (2018), the founder of the World Economic Forum Klaus Schwab argues that this field is indeed developing quickly and that these technologies are about to alter substantially the ways in which we measure, analyze, translate, and visualize the electric and chemical signals in the human brain (2018: 168). In a more optimistic vein, in his contribution to the volume *Intelligence Unbound*, neuroscientist and neuroengineer Randal A. Koene provides an overview of the technologies and techniques that are already available or will become available in the near future and that will help human beings replicate the human brain. He then concludes that "uploading a mind via whole brain emulation can become a reality in the next two to four decades" (2014: 98).

The possibilities that mind uploading opens up for human beings, as well as the risks it entails, have been widely discussed not just by transhumanist thinkers but also by technology experts, sociologists, and scholars in the Humanities. This last group of academics, especially the so-called critical posthumanists, have been particularly critical, warning against the dangers of the transhumanist version of the posthuman being as a disembodied and immortal entity (see Hayles 1999; Vint 2007; Braidotti 2013). This debate has also translated into contemporary culture, art, and literature. In fact, the first two decades of the twenty-first century, and perhaps most prominently the second, have witnessed a proliferation of the number of cultural

productions that, echoing some of the main tenets of critical posthumanism, denounce the dehumanization inherent in the idea of leaving our bodies behind while uploading our consciousness into computational software. Contemporary TV series such as *Black Mirror* (Charlie Brooker 2011-2019), *Years and Years* (Russell T. Davies 2019), and *Upload* (Greg Daniels 2020-present)[2], movies such as *Transcendence* (Pfister 2014), or novels such as *Altered Carbon* (Morgan 2002), *Upload* (McClelland 2012) and *Fall; or, Dodge in Hell* (Stephenson 2019), are all works that deal with this topic.

This work focuses on Mark McClelland's debut novel *Upload*, which despite having been published over a decade ago, remains widely unfamiliar both inside and outside academia – the fact that just one academic article and a few online reviews of the novel have been published so far is good proof of this. McClelland's self-published novel tells the story of Raymond Quan, a half-American, half-Vietnamese man who works as a software developer for "The Human Mind Upload team", based at the University of Michigan's Life Computing Lab in Chicago (McClelland 2012: 15). Having committed a crime in the past for which he is now the main suspect, Raymond designs a plan that involves uploading his consciousness into a computer and making the other researchers of the team believe the upload has failed. In this way, he can henceforth live a virtual life away from any legal responsibilities. Nevertheless, carrying out his escape plan means losing Anya, his girlfriend and coworker and, most importantly, the only person he has been able to open to throughout his life. What makes the novel compelling – which may also help explain its lack of commercial and academic success – is that it is written by somebody who works for the tech industry. Just like the main character of his novel, McClelland earns his living as a software developer, being his fondness for writing just a secondary concern.

Significantly, McClelland is not alone in his endeavor. In recent years, different tech professionals have offered disturbing warnings of the future that lies ahead of us. Some of them have written non-scholarly books, as is the case with virtual reality pioneer Jaron Lanier. In works such as *You Are Not a Gadget: A Manifesto* (2010), *Who Owns the Future? (*2013) or *Ten Arguments for Deleting Your Social Media Accounts Right Now* (2018), Lanier uncovers a series of unethical practices on the part of large technology and social media corporations that threat to alter the way

[2] Remarkably, as well as being named the same, the TV series *Upload* (premiered on Amazon Prime Video on May 2020) and McClelland's novel show many parallelisms. Thus, both texts feature male protagonists who work as software developers and upload their consciousness to the cloud, only to realize that simulated life is not what they expected. However, they also differ in some respects. For instance, in the TV series the protagonist decides to undergo mind uploading, encouraged by his wealthy wife, after an accident with his driverless car allegedly leaves him mortally wounded. In the novel, the protagonist uploads himself to the cloud to escape his legal responsibilities after committing a crime. Furthermore, economic profit and inequality of access to technology are prominent themes in the TV series, while they are not in the novel. Also, the TV series approaches the shortcomings of an uploaded life from a humorous tone, while the tone McClelland uses is more serious.

in which we think, feel and relate with one another. Others, like McClelland himself, have resorted to SF. This is the case of Dubai-based creative technologist Clyde D'souza, who explores in his (also self-published) novel *Memories with Maya* (2013) the possibilities and dangers of the merging of artificial intelligence and augmented reality technologies. In a similar vein, in his 2021 novel *2037. Paraíso Neuronal*, Spanish nanoscience researcher José María de Teresa explores some of the ethical dilemmas associated to possible future developments in the field of neurotechnology. In light of this seemingly emerging trend, one may wonder what this particular strand of SF has to add to the debate over human enhancement.

As this work argues, much of the success of this kind of novels lies in the fact that they accurately engage with transhumanist themes and ideas without losing sight of technology's most nefarious implications, ultimately offering more balanced views on human enhancement than those put forward by transhumanist thinkers. To prove this point, this work approaches McClelland's *Upload* from a narratological perspective, in order to demonstrate that even if the novel gives voice to transhumanist arguments on the pertinence of leaving biology behind to achieve virtual immortality, the writer's narrative choices ultimately uncover a critical posthumanist view of embodiment as an essential part of human identity. Ultimately, this work demonstrates the power of SF to help readers assess critically the possible future implications of an enhancement option that seemed once very distant but which could become technically feasible in a not-too-distant future.

2. TOWARDS A VIRTUAL AFTERLIFE: ARGUMENTS FOR AND AGAINST TRANSCENDING BIOLOGY

One of the first critics to talk about mind uploading was the Canadian computer scientist Hans Moravec. As early as 1988, in his book *Mind Children: The Future of Robot and Human Intelligence*, Moravec already explored the possibility of downloading human consciousness onto computer hardware and envisioned "a postbiological world dominated by self-improving, thinking machines" (5). Following Moravec, other transhumanist thinkers have more recently called our attention to the possibilities that mind uploading offers for achieving human immortality. Thus, in his 2005 work *The Singularity is Near: When Humans Transcend Biology*, Ray Kurzweil argues that by the end of the 2030s human beings will be able to have their intelligence, personality, and skills transferred to nonbiological software (198-201). This will allow them to have control over how long they want their lives and thoughts to last (330). In his contribution to *The Transhumanist Reader*, technology expert and writer Giulio Prisco even describes mind uploading as "the ultimate technology for immortality". He claims to be "persuaded that the ultimate realization of the dream of achieving an indefinite lifespan, with vastly enhanced cognitive abilities, lies in leaving biology behind and moving to a new, post-biological, cybernetic phase of our evolution" (2013: 235).

For most of these critics, renouncing to our physical embodiment and experience is, therefore, a crucial step in the way to becoming posthuman immortal beings. In

a recent interview, Max More – who is, together with Bostrom, one of the main proponents of transhumanist philosophy – claimed that the concept of mind uploading is indeed "based on an intuition from a long history of thinking that we are really something other than our bodies" (2019: 9:24-10:01). Then, he expressed his personal conviction that nothing would be really lost should he undergo mind uploading and should his original body be destroyed. In his contribution to the edited volume *Intelligence Unbound*, More further elaborates on this issue. Thus, he claims that human beings must be ready to move to non-biological embodiments, "whether located in a single object or distributed across many objects", if we want to get over "the weaknesses and aging of biological bodies" (2014: 222). The protagonist of McClelland's novel Raymond Quan clearly shares this point of view, as at some point in the novel he claims uploaded life to be better because your mind is finally "freed from your body, which is what breaks down" (McClelland 2012: 112).

For the critical posthumanists, these assertions uncover a reductionist and Enlightenment-based view of human essence as being housed within our minds rather than our bodies (Thompson 2017: 10-11; see also Pilsch 2017: 110). Turning a cold shoulder on those transhumanists who are ready to leave their bodies behind, these critics stress both the impossibility to separate human mind and body and the important role played by embodiment in the construction of posthuman subjectivity. Thus, in her 2007 work *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction*, Professor of Science Fiction Media studies Sherryl Vint points out that the failure to regard the body as a crucial part of our subjectivity is something that transhumanists have inherited from Cartesian dualism (9). Then, this critic argues that any definition of the posthuman subject should acknowledge "the specificities of embodied experience" (11).

The critical posthumanist vision of the posthuman as an embodied being also becomes evident in the following passage from Katherine Hayles's *How We Became Posthuman* (1999), one of the works that helped consolidate the posthuman paradigm:

> If my nightmare is a culture inhabited by posthumans who regard their bodies as fashion accessories rather than the ground of being, my dream is a version of the 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 is embedded in a material world of great complexity, one on which we depend for our continued survival. (5)

In the previous passage, Hayles defines the body as "the ground of being" and criticizes those who intend to achieve virtual immortality through technology. She then points to death – or "finitude" – as an intrinsic part of being human. Lastly, she stresses the key role played by the material world and the environment in the construction of posthuman subjectivity. In a similar vein, feminist philosopher Rosi Braidotti sketches in her 2013 work *The Posthuman* what she labels "a monistic

philosophy of becomings" that regards matter – including human embodiment – as intelligent and self-organizing. For this critic, matter is not opposed to culture or technological mediation, but "continuous with them" (35). Ultimately, she distances herself from "hyped-up disembodiment and fantasies of trans-humanist escape" and proposes instead "to reinscribe posthuman bodies into radical relationality, including webs of power relations at the social, psychic, ecological and micro-biological or cellular levels" (102).

As stated above, this critical posthumanist approach to posthuman (dis)embodiment has found its reflection in some contemporary cultural, artistic and literary productions dealing with the transhumanist concept of mind uploading, such as McClelland's debut novel *Upload* (2012). The novel is set in the near future (around the year 2071) and tells the story of Raymond Quan, a half-American, half-Vietnamese man who was at an early age left under the care of the state, after his virtual-world-addict father abandoned the family home and his mother was admitted to a recovery center to treat her subsequent drug addiction. Towards the beginning of the novel readers learn that when he was just seventeen and, as part of the state home's "Workbound program" (McClelland 2012: 8), Raymond had started working for Nicholas Tate, a retired management consultant whose career in the computer industry had earned him incredible sums of money. While Raymond's main tasks were to repair Mr. Tate's cleaning and lawn-moving robots and to help him with the domestic chores, the old man had also encouraged Raymond to "convert the garage into a robotics workshop" (9), for which he had even granted the boy access to a bank account.

Thanks to his outstanding computer skills, Raymond had managed to hack into the man's virtual chamber and gain access to a great amount of his personal information, which he intended to use to create an unprecedently realistic virtual persona. Nevertheless, Raymond's plans had been derailed by the man's sudden death of a heart attack. Afraid that the medical team would find out he had hacked into the man's virtual chamber, he had decided to get rid of the body and pretend the man had willingly fled the country. Nine years later, readers learn, Raymond has become a member of The Human Mind Upload team at the University of Michigan's Life Computing Lab. The team is embarked on a project that aims to upload human consciousness into computational software. Although thus far they have only successfully managed to upload the consciousness of a primate, when Raymond learns that Mr. Tate's case has been reopened and he is the main suspect in the man's disappearance, he decides he may be willing to run the risk. His romantic relationship with Anya, his colleague and the first person he has ever felt loved by, is the only thing that ties him to the physical world.

In the only academic article on McClelland's *Upload* published to date, Indrajit Patra argues that while the novel does engage with some of the drawbacks and uncertainties of the mind-machine merger, simulation is ultimately regarded in the text as "a heavenly doorway to a newer, fuller and more enriched form of life" (2017: 162). While it is true that the novel gives voice to contemporary transhumanist arguments on the pertinence of achieving immortality through mind uploading, this

work argues that it ultimately invites readers to mistrust the idea of leaving behind our embodied existence – and, consequently, our physical relationships with the people we love and our present problems and responsibilities – to achieve virtual immortality. As is explained in the following sections, McClelland puts forward his critical posthumanist message, first of all, through focalization. Thus, he introduces a heterodiegetic narrator who focalizes through the protagonist and conveys not only his views on the possibilities of an uploaded life but also his willingness to escape his legal responsibilities by uploading himself to the cloud and his hesitations at the prospect of losing all physical contact with his girlfriend Anya.

Additionally, McClelland occasionally interrupts the heterodiegetic narration with some first-person sentences in italics in which the protagonist directly conveys his hesitations at the prospect of leaving Anya behind and which further invite readers to adopt a critical position towards mind uploading. Remarkably, in the second part of the novel, which recounts Raymond's life after the upload, the same narrative strategies (focalization and the introduction of italicized sentences) are used to convey Raymond's feelings of disembodiment and emptiness after the upload, adding to readers' sense of unease. Finally, the ending of the novel – in which Raymond's virtual copy allegedly dies after some acid seeps in the case of his operating system – reinforces McClelland's critical posthumanist message as it warns of the dangers of renouncing to our time on earth and our closest relationships with the unlikely hope that we will live forever as virtual entities. All in all, as this work sets out to prove, McClelland's narrative choices point to the fact that, as the critical posthumanists have reiterated, "it is essential for embodiment to figure in our understanding of the posthuman subject" (Vint 2007: 25).

3. CRITICAL POSTHUMANIST EMBODIMENT IN MARK MCCLELLAND'S *UPLOAD* (2012)

The novel is divided into two different parts. Part One recounts the events leading to the protagonist's upload at The Human Mind Upload team lab while Part Two recounts his life after the upload. Although the narrative is predominantly linear and McClelland does not make use of any experimental techniques, it is worth paying attention to his use of focalization, as it is one of the ways by which he puts forward his message of warning. Thus, McClelland introduces a heterodiegetic narrator who frequently focalizes through Raymond, the protagonist. Throughout the story, the narrator conveys Raymond's techno-utopian views on the pertinence of using technology to escape the physical world and live instead a disembodied and eternal life in cyberspace. From his perspective, readers learn that echoing the above-mentioned non-fictional transhumanist thinkers, the protagonist regards organic life as "merely a vehicle of complexity" and digital life as "the next step in the evolution of that complexity" (McClelland 2012: 48). Also from his perspective, we learn that what had originally led Raymond to join The Human Mind Upload team was a belief that uploading would benefit the sick by granting them a chance "to escape their failing bodies", as well as scientists, allowing them "to gain a deeper

understanding of the mysteries of the human mind", and the environment, as uploading would help reduce the human ecological footprint (36).[3] Furthermore, he was also confident that uploading would smooth the way for space travel, "allowing humans to beam their minds across the solar system in digital form" (36). Because thanks to the use of focalization McClelland brings readers closer to the protagonist's perspective, we may at different points identify with his transhumanist views and recognize the possibilities of mind uploading.

However, readers may ultimately be unable to identify with the protagonist's techno-utopian ideas. This is to a large extent because, also focalizing through Raymond, the narrator leads readers to realize that, at a more personal level, uploading stands for the protagonist as a chance to escape his legal responsibilities in relation to the crime he committed some years earlier. Hence, we learn that now that the case of Tate's death has been reopened, uploading has taken "a rather more urgent meaning" for the protagonist. It has become a way to escape his criminal past, a "*beautiful* way out of the fraud he had perpetuated since he was seventeen" (McClelland 2012: 36; emphasis added). Raymond's willingness to escape the consequences of his criminal past by uploading himself to the cloud becomes most evident soon after he learns that the private investigator who is in charge of Tate's death is headed his way. At this point he imagines himself "as a digital life-form, *safely* residing in a hi-jacked communications satellite, orbiting the Earth" (81; emphasis added).

In the previous quotations, McClelland invites readers to adopt critical distance towards the protagonist by using the words "beautiful" and "safely". Rather than interpreting them literally, readers may be able to perceive the irony and see in the protagonist's wish to escape his criminal past by uploading himself to the cloud a lack of resilience. Furthermore, we may become aware of both the ethical dilemma and the legal void that would arise should mind uploading become an option one day and should a sector of the population come to regard it as a way out of their problems. So far, this issue has not received much attention in the academic sphere, as critics tend to focus their attention on more pressing concerns such as the technical feasibility or the philosophical implications and challenges of mind uploading. Nevertheless, this is a topic for debate that is likely to become relevant in the future and that McClelland successfully manages to raise in his novel.

One further reason why readers may not fully identify with the protagonist's transhumanist views is because there are times when, also focalizing through Raymond, the narrator conveys the protagonist's hesitations at the prospect of losing

[3] Some of the reasons why Raymond decides to join the team – in particular his belief in the opportunities that mind uploading opens up to escape our failing bodies or to reduce the human ecological footprint – echo some of the main tenets of democratic transhumanism. Democratic transhumanism is a branch of transhumanism that believes that human enhancement technologies can drastically improve the quality of life of the world's population by allowing us to control our minds and bodies, as long as they are regulated democratically and equally available for everyone (Hughes 2004: xii).

all physical contact with Anya, his girlfriend and coworker. The character of Anya plays a key role in the novel as it ultimately epitomizes McClelland's critical posthumanist views on the importance of embodiment. Even if Anya is also a member of The Human Mind Upload team at the University of Michigan, she is portrayed in the novel as a person who is able to focus on, and enjoy, the here and now, and who favors the physical world over the virtual world. Thus, although she believes that an uploaded human would preserve his or her humanness and sometimes fantasizes "about a future in which uploaded humans evolve into something new", the primary reason why she joined the team was because she thinks that an uploaded mind is "the perfect platform" to do research to cure physical problems like "schizophrenia, […] obesity, migraines, [and] cancer" (63). For her, there is no point in taking the risk to upload a healthy human. As she declares: "But what if something goes wrong? Then you've given up on your perfectly good life…because you were greedy for something better?" (63). Anya's moral stance echoes that of some contemporary sociologists and bioethicists who argue that technology should certainly be used for therapeutic purposes but that those uses that go beyond therapy should be regulated (see McKibben 2004: 9-10; Walker 2013: 11; Kass 2003: 6, 10).

In a society in which technology mediates practically every aspect of the characters' existence – from retinal implants and holographic displays to automated cars, driverless shuttles, and robotic cars that deliver your groceries; the society depicted in *Upload* is at the cutting edge as far as technology is concerned –, Anya stands out as the most 'off-the-grid' character. As an example of this, Anya practices yoga in her living room – as opposed to practicing it in a virtual chamber, which seems to be the most common option in the society depicted in the novel. In this respect, in a conversation she has with Raymond at the beginning of the story, she claims that it is only in "reality prime" (McClelland 2012: 19) – these are the words the characters in the novel ironically use to refer to the physical world – that she is able to feel in tune with her body. Furthermore, once in a while she likes to turn off all her technological devices, light some candles and an oil lamp, and read books. "It's like I've withdrawn from society for an evening, like I'm out of the system – alone" (48), Anya declares.[4]

Before the two characters start a romantic relationship, they have several personal conversations at work. From the protagonist's perspective, readers learn that he is not used to having personal conversations with anyone nor to "sharing anything about himself" (19). However, talking to Anya is something he really enjoys, as she seems to be willing to listen to what he has to say: "She seemed

[4] In view of Anya's more conservative attitude towards technology, the revelation that she is a designer baby or a "gene-job" (40) may come as a surprise to readers. However, we soon learn that the genetic modifications her parents programmed for her were mostly health-related. Just like their daughter, Anya's parents seem to hold a more conservative moral stance with respect to technology. The fact that her father has devoted his professional life to writing articles on "famous setbacks experienced by scientists and technologists" is also revealing in this respect (100).

genuinely interested in what he had to say, as if she had all the time in the world for him" (17). Anya is also the first person he manages to open to. Hence, further on in the story, Raymond tells her about his traumatic childhood, about how his virtual-world-addict father, who probably spent most of his time "having sex with some woman in v-space", finally abandoned Raymond and his mother to be with an "Asian stripper named Mako, in Miami" (52-53). He also tells her how her mother would always be pacing outside his father's virtual chamber "with a drink in her hand", saying things "loud enough so he might overhear them inside" (52). Telling Anya about his past makes Raymond feel relieved: "He felt a sense of peace, and he realized that it was because he had let Anya into his world" (54). Conversely, Raymond also appreciates when Anya shares her feelings with him, as "[t]he privilege of her shared emotion felt like a gift to him" (18).

It is precisely losing all physical contact with Anya that worries Raymond the most about uploading. In several occasions, the narrator focalizes through the protagonist and expresses his fear of not being able to feel what he feels when she is around anymore after the upload. Recalling the moment when he and Anya had kissed for the first time – a moment in which he had felt a "confusion of lust, tenderness, defensiveness, compassion, and joy" – Raymond wonders whether "an uploaded mind could know such confused exhilaration" (40). The fear of losing part of our sensory experiences and/or emotions and, therefore, part of our personal identity in the process, which McClelland successfully fictionalizes in the novel, is a common argument against mind uploading. Michael Hauskeller, for instance, argues that "there is no evidence whatsoever" that "a perfectly accurate software emulation of a human brain" will result in conscious experience. He then adds that even if it did result in conscious experience, there is no evidence that it would "be anything like the experience of the mind we intended to duplicate, or recreate" (2012: 198). Canadian transhumanist philosopher Mark Walker dismisses these arguments and declares that "uploading promises to preserve the essential aspects of the brain and nervous system" which are thought to be constitutive of personal identity, namely "thought, consciousness, emotions, creativity, aesthetic experience, sensory experience and empathy" (2014: 162). Moreover, he goes one step further and claims that moving beyond biology will allow human beings not just to preserve but also to *extend* or *increase* our sensory experiences and cognitive abilities, as well as to "choose our emotional architecture" (228). Ultimately, by inviting readers to share the protagonist's hesitations through focalization, McClelland sides with the former group of critics – those who are skeptical of technology's ability to replicate our sensory experiences and emotional states.

As well as through the use of focalization, another way in which McClelland brings readers closer to the protagonist's perspective throughout the novel is by introducing some first-person sentences in italics. These italicized sentences interrupt the main narrative at different points and are mainly used to convey the protagonist's immediate thoughts and concerns. Sometimes, they convey Raymond's astonishment at feeling things that are completely new to him, as happens when Anya kisses him in front of their colleagues for the first time: *"This gorgeous, popular*

woman just kissed me in front of Alfonso and Suma, and now she's hugging me" (McClelland 2012: 68). Other times, the italicized sentences convey Raymond's concern at the prospect of leaving Anya behind. Thus, the day of the upload, the heterodiegetic narrator recounts how Raymond records a "voice-visual a message" (151) for Anya from her own apartment in which he says goodbye and explains the reasons why he has decided to upload. Then, the protagonist decides to rest a little bit in her sofa and imagines her curled up next to him. Right afterwards, readers find the following sentence in italics: "*Tonight – tonight I upload. I'll never be in this apartment again. I'll never see Anya again*" (156).

All in all, the character of Anya plays a key role in the novel because she makes the protagonist start valuing the flesh-bound aspects of his existence just as he plans to leave behind the physical world to lead a virtual life in cyberspace. Raymond's traumatic childhood may help explain why he feels detached from the physical world and why uploading seems initially like a good idea for him. Never having felt loved or cared for by anybody and having spent a good amount of his life in his own virtual world, there is nothing that ties him to the physical world. However, he shows more doubts once he meets Anya and learns what it feels like to be emotionally and physically loved by someone. As explained above, by means of focalizing on the protagonist and interspersing some first-person sentences in italics, McClelland makes readers witness his change of heart and invites us to mistrust the idea of renouncing to our physical embodied existence in general, and to our physical relationships with the people we love, in particular. Towards the end of part two of the novel, in the voice-visual message he records for Anya explaining the reasons why he has decided to upload in spite of his doubts, he tells her that she has certainly made him rethink his plan:

> Being with you, I've seen what it feels like to be close to someone. I feel like you made me a real person, for the first time in my life. If my past were different, maybe… maybe things would have worked out between you and me. (155)

Nevertheless, feeling cornered by the private investigator working on Mr. Tate's case, Raymond finally decides to carry his escape plan forward and uses the lab's technology to transfer his mental data to the cloud.

Part two of the novel shows Raymond's new life as a virtual entity in cyberspace. In this second part, focalization and italicized sentences also play a key role, as they are mainly used to convey Raymond's feelings of disembodiment after the upload and, therefore, to further invite readers to mistrust the transhumanist ideal of abandoning the physical world to lead an everlasting virtual life in cyberspace. The opening sentence is quite revealing in this respect, as the heterodiegetic narrator provides, from Raymond's perspective, hints not just of the fact that the upload has worked but also that the protagonist is ultimately unable to feel anything: "Raymond's mind stirred, but he found himself in a state completely devoid of sensation" (165). Similarly, a few paragraphs later, McClelland introduces some first-person sentences in italics which convey Raymond's excitement at realizing that the upload has worked – "*Oh my god – it must have worked. The upload worked. My*

name is Raymond Quan. I am human. I am computer" – but also his preoccupation at not knowing where he is and realizing that he does not have a body: "*Where am I, where am I, where am I, where am I.* […] *The mental scan must have worked, but I have no body*" (165). The protagonist soon concludes that there must have been a problem with the initialization process that was supposed to establish a connection between his brain and his new virtual body. He tries to no avail to run the process again himself, which makes him start thinking about other possibilities, such as the FBI having captured his mental data or the nanobots having destroyed his body during the scan and, consequently, him being now stuck in an empty digital afterlife. All in all, Raymond finds himself panicking, worried about remaining "a bodiless brain in a void" forever (169).

The protagonist decides to run the commands once more and finally awakens in "Nurania", a virtual world which he had created to this purpose some years earlier (167). He is then delighted to find out that he has a perfectly healthy and flawless digital body, which closely resembles his real-world body: "He looked down and saw his own body. His almond skin, hairless chest, flat pectorals, dark nipples. The simulation of his flesh looked and felt flawless" (168). Raymond is now able to feel "the sun and the wind against his skin" (176) as well as "pain in his wrist" (175). Feeling pain is something he appreciates, as it means that his virtual body is now "properly integrated with both the world around him and his new brain" (168). Similarly, breathing Nurania's air and being able to feel "the smell of moss, wet stone, and floral sweetness" is described, from the protagonist's perspective, as a "transcendently exhilarating" moment (177). Nevertheless, also from his perspective, readers learn that Raymond feels at times "vulnerably alone" in Nurania and even regrets having given up his physical life with Anya (168). He feels that life as a simulated form does not at all resemble real life and is ashamed of not having been able to open up to Anya and face his legal responsibilities:

> Had he really thrown away whatever chances he might have had with Anya for *this*? Maybe he could have convinced her to give him the time he needed to open up, to get used to having someone in his life. It had felt so good to spill everything to her in his goodbye message. What if he could have done that without having to run away? (171; emphasis in the original)

Perhaps the main reason why Raymond does not feel at home in Nurania is because, contrary to what he had initially planned, he is not in control of his own virtual world. He has woken up naked in a place different from the place where he was supposed to wake up and has partially lost his memory. Talking to the people he meets in Nurania, he comes to the conclusion that he must be just a copy of Raymond's original mental data and that the first Raymond must have been in Nurania before. Not being able to remember exactly what happened, the protagonist embarks on a journey around the virtual world to try to get answers to his questions. During the journey, he witnesses some meteor showers and volcanic eruptions and finds out that Nurania is about to be destroyed by means of a comet impact – remarkably, this is how he had once planned to destroy his own virtual world should

it be necessary. Furthermore, he finds a mausoleum in Anya's flower garden, which leads him to think that Anya is dead and that the original Raymond must have created it as a tribute to his lover. He also realizes that the first Raymond has done, out of boredom and feelings of emptiness, terrible things to Nurania's inhabitants.[5] All this makes him feel ashamed of himself and regret having uploaded. This can be clearly observed when, being asked by one of the characters in Nurania whether he regrets uploading, he answers: "Right now I do. I'm a stranger in my own world. Something is seriously screwed up, and I can't figure out what. […] Anya's dead, apparently. […] I don't know how she died, and I don't know if I ever could have had a chance to set things right with her anyway. And Nurania certainly isn't what I expected" (211). Sometimes, the protagonist even fantasizes about dying or taking his own life, which is highly ironic considering that his original intention for uploading was to become immortal.

Towards the ending of the novel, the second version of Raymond is finally able to contact Anya, who is still alive in the real world. While she is telling him that somebody is doing experiments with him and his life is therefore at stake, the protagonist interrupts her and declares his love for her: "'Anya', interrupted Raymond. 'I love you' […] 'You are life to me. Nothing else means anything. My love for you is the greatest emotion I've ever felt. If I knew you loved me as much as I love you, I could die happy'" (260). As evidenced from the previous quotation, Raymond seems to have realized that his love for Anya is the only thing that gives meaning to his life. He does not seem to care about dying anymore. He just wants to let Anya know that uploaded life is not the same without her and to confirm that she loves him as much as he loves her. Some pages later, readers learn that this conversation, and specially seeing Anya and realizing that she still cares about him, has infused the protagonist with confidence. At this point, Raymond feels like smiling. However, the heterodiegetic narrator then announces, from the protagonist's perspective, that lacking a physical body, carrying out a physical action such as smiling is ultimately impossible for him. This makes Raymond feel hopeless and empty: "Having no face to show expression, no lips to turn in a smile, his happiness felt muted. He pictured her face, smiling on his behalf. Unable to smile himself, her imagined smile felt empty, left him feeling even flatter" (273). Here, McClelland questions again the transhumanist argument that the sensory experiences of uploaded posthumans could be the same as those of their organic human counterparts.

Overall, the protagonist wishes he could go back to the real world to be physically near his lover, so that she could help him work through his traumas and give him strength to face his legal responsibilities:

> He wanted to release himself into Anya's care, this time with nothing to hide. He wanted to lay his head in her lap and close his eyes, and have her pet his head

[5] Significantly, Part Two of the novel raises an interesting debate on the ethics of digital entities that goes in line with critical posthumanism's efforts at decentering the human as the sole focus of ethics and politics.

> and say pleasant things, about her day, or her plans for the summer, or fond memories of her father. He wanted to throw himself into the arms of a woman who could rebuild him as an innocent. (273)

In the previous quotation, McClelland uses focalization to bring the protagonist's perspective closer to the readers' and convey his despair at the impossibility of being physically close to his lover. With this narrative choice, McClelland highlights the important role that physical contact plays in interpersonal or romantic relationships and turns a cold shoulder, once again, on those who plan to upload themselves and become disembodied and immortal entities.

Remarkably, the ending of the novel reinforces McClelland's message as it invites readers to be wary of technology's ability to help us realize our dreams of enhancement. Thus, in the last pages of the novel Anya tells Raymond that there has been an explosion in the lab where his memories are stored. The case of his operating system has been badly damaged and some kind of acid has gotten into it. Anya fears that if the acid seeps in further it could cause major brain damage on Raymond. The protagonist tells his lover to break the case but, once she does it, Raymond starts feeling a "ghostly cold sensation" and his thoughts turn hazy (277). He feels as if he is falling and struggles to say Anya's name one last time, which are all hints that acid has seeped in and caused irreversible damage and that Raymond's second copy is about to die. By devising such a gloomy and ironic ending to the novel, McClelland dismantles the transhumanist view of technology as a safe bet and points to the futility of renouncing to our embodied existence with the uncertain hope of achieving virtual immortality.

4. CONCLUSION

Until relatively recently, the prospect of achieving virtual immortality through uploading human consciousness into computational software was just a fantasy in the minds of those keen on SF. However, in light of the latest developments in the field of neurotechnology, some critics now regard mind-uploading as a not so far-removed enhancement option. While transhumanist thinkers embrace this procedure and dream of a postbiological future in which human beings possess greater cognitive, emotional, and sensorial abilities, critical posthumanists warn of the risks inherent to the idea of leaving biology behind to leave a virtual life in cyberspace. Significantly, these warnings reverberate in some twenty-first century SF novels written by tech professionals, such as Mark McClelland's debut novel *Upload* (2012). This work has argued that much of the novel's success lies in the fact that it carries out an effective critique of mind uploading from a critical posthumanist perspective. As this work has set out to prove, the writer's narrative choices – specifically, his use of focalization, the introduction of some first-person sentences in italics, and the introduction of a pessimistic ending to the story – invite readers to turn a cold shoulder on those who aim to leave behind their embodied existence to achieve virtual immortality. Furthermore, they encourage reflection on some of

the ethical and philosophical debates that surround mind uploading and which have often been overlooked by transhumanist critics.

Thus, by bringing readers closer to the protagonist's perspective through focalization and introducing some first-person sentences in italics, the writer leads readers to question the ethics of regarding mind uploading as a way of evading our problems and legal responsibilities. Furthermore, he dismisses the philosophical argument that the sensory experiences and emotions of uploaded posthuman beings are bound to resemble those of their organic counterparts and makes readers aware of the important role that physical contact plays in romantic relationships. Finally, by devising an ending in which the protagonist allegedly dies after some acid seeps into the case of his operating system, McClelland warns against the risks of renouncing to our embodied existence and placing our hopes of immortality in a medium that is in itself not fully reliable. Overall, echoing some of the main tenets of critical posthumanism, McClelland's *Upload* warns against the idea of turning to technology for redemption and urges us instead to make the most of the time we have with the people we love and to face with resilience our problems and responsibilities. Regrettably, insofar as it features a male protagonist who yearns to escape his body and his female love interest who represents physicality and embodiment, *Upload* reinscribes stereotypes that critical posthumanism has been trying to discard for a while now. McClelland's non-literary background may (or may not) excuse his partial understanding of critical posthumanist theory. In any case, what is undeniable is that his position as an 'insider' of the tech industry undoubtedly endows his message of warning with a unique sense of urgency.

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