IJHS, e-ISSN 2597-4718, p-ISSN 2597-470X, Vol. 7, No. 1, September 2023, pp. 115-126

International Journal of Humanity Studies

International Journal of Humanity Studies http://e-journal.usd.ac.id/index.php/IJHS Sanata Dharma University, Yogyakarta, Indonesia

## MORE HUMAN THAN HUMAN: POSTHUMANISM IN LITERARY DISCOURSE

## Jorisse Gumanay<sup>1</sup>

<sup>1</sup>University of the Philippines Cebu, Philippines <sup>1</sup>Silliman University, Philippines correspondence: jcgumanay@up.edu.ph https://doi.org/10.24071/ijhs.v7i1.6265 received 18 April 2023; accepted 2 October 2023

## Abstract

"What makes us human?" Throughout time, people have been preoccupied with this question, believing that humans are at the pinnacle of the world. Today, technology blurs the boundaries of what is considered "natural" versus "enhanced," leading to a fallout with the limited views of humanism and modernity. This paper explores the many views on posthumanism that have been established by several thinkers to attempt to understand the concept. An illustrative text is then used to elucidate the implication of the posthumanist thought in literature. Posthumanist themes are prevalent in science fiction, embodying people's collective anxiety toward the looming future of humanity, such as in the works of Philip K. Dick. The story "The Electric Ant" poses existential questions on the nature of reality and our place in it, with highly posthumanist themes such as the presence or assimilation of robots in human societies. Posthumanism is as yet a complex and broad field of study, challenging our notions of what it means to be human and alive, and making us ask questions about how the present and future of technology could shape our human existence.

Keywords: cyborg, literary criticism, Philip K. Dick, posthumanism

# Introduction

A question that human beings always ask themselves is "What is my purpose?" Another fundamental variation of this query is "What makes us human?" Throughout time, people have been preoccupied with this question, armed with the belief that human beings are at the pinnacle of the world and therefore must seek the answer about the essence of life, particularly the state of being human. The role of the human being is seen as central to the order of the universe, a thought solidified by the establishment of the humanist school of thought.

# Posthumanism: "What makes us human?"

The essence of being human has been particularly assailed of late, as technology blurs the boundaries of what is considered "natural" versus "enhanced." More technological advancements have helped human beings function more efficiently than ever before, from medical devices such as cochlear



implants and bionic prosthetics to the enticing possibilities of immortalizing one's brain state with downloaded consciousness. Furthermore, even body modifications such as plastic surgery, which enjoyed much of a surge in the previous decades, are calling into question just how much of the human body is entirely biological. There are now so many ways for the biological components to be augmented to make up for something that is lacking or defective, or even to simply fulfill a desire. In the world today, this reality has been accepted and widely embraced, with not much of a second thought. It is left to avenues such as science fiction to warn humans of the pitfalls of embracing too much technology, especially concerning the body.

The mind, one of the best characteristics that make us human (and therefore unique from all other beings), has been expanded beyond human capability with the use of technology. People across the world have the power to reach each other through the internet. Information can be readily accessed with a few clicks (and comprehension is not always a requirement anymore). As such, there is this entirely different world that humans have daily access to, without actually being there – the online world. This non-physical world is as much a part of being human today as the places we visit for our daily needs. Computers are structured to mimic the cognitive processes of the human brain, giving rise to questions such as, "Is it possible to create a non-human entity with human characteristics, including feelings and cognition?" Humanoid robots such as Sophia and Erica are ushering in new possibilities to answer this question. Even virtual assistants such as Alexa and Siri, which are used by millions of people every day, are taught to understand human conversation and respond to them accordingly.

With such implications, it's only natural for human beings to experience a fallout with the deeply limited views of humanism and modernity. No longer is the anthropocentric view enough for the world. The new ways that humans have mental and physical connections with technology have changed the way that they perceive themselves concerning their experience with the world. If humans can only be expected to evolve with the use of technology, how human is it to be human anymore in the near future?

### Method

This paper is a qualitative study. Ideas about posthumanism from different thinkers and critics are outlined to understand the concept, which will be applied to the chosen literary text, the short story "The Electric Ant" by Philip K. Dick, which will serve as an illustrative example of the application of posthumanism in literary discourse.

The application of posthumanism in literary criticism has been outlined by such scholars as Stefan Herbrechter who applied the concept through an analysis of the novelist Don Delillo's selected works. Herbrechter (2020) stated that posthumanist literature touches upon a variety of topics associated with a posthuman world. At the same time, posthumanist literature also possesses a level of introspection that seeks to understand the role of literature as a primarily humanist tradition. Meanwhile, Kowalcze (2020) emphasized that contemporary literary studies can benefit from posthumanism as an ideological backdrop for analysis. Despite its lack of a unified line of thought, the concept can provide enlightening ideas where the human being becomes the intersection point of the material and non-material and the human and non-human elements. Similarly, Hortle (2016) stated that posthumanist themes in contemporary works such as novels have significant political and cultural implications due to their ability to generate discussions on the structures of human privilege, along with influencing ideas about the future. As such, the concept has the unique role of influencing the cultural construction of human identity, while at the same time breaking the notions surrounding it. In this paper, the various modes of thought in posthumanism are explored and applied to a literary text to illustrate the implications of a posthumanist reading in literature.

### **Findings and Discussion**

Posthumanism as a term may seem like a recent creation, given the rise of the online world and the advent of more modern compact technologies. However, people's curiosity about what lies beyond humanity was already prevalent in the 1800s. The term first appeared in the form "post-human" in 1888, in a book called *The Secret Doctrine* by Helena Blavatsky, often referred to as a rambling tome on pseudoscience (Mambrol, 2018). However, Blavatsky didn't offer a detailed description or explanation of what posthuman means. Perhaps, like much of the concept's ways of thinking, the word was too advanced to be comprehended at the time.

#### Posthumanism, humanism, and transhumanism

Cary Wolfe (2009) describes posthumanism as different from classical humanism in its idea that humans are just one of the many natural species of the world, rejecting the notion of human dominance that is central to anthropocentric thought. Wolfe also states that it was Michel Foucault who described the difference between posthumanism from humanism in the context of Enlightenment thought. As humanism tried to establish norms, posthumanism attempted to transcend all of it, which included the boundaries established by humanistic thought. In short, posthumanism sought to change the nature of the way we think about what it means to be human.

In his book, *The Order of Things*, Michel Foucault (1970) said that man is an invention whose recent date and nearing end are easily shown by the way that our thinking is structured. Foucault also talked about how culture shifts in awareness about ways of thinking. In modern ways of thinking, in particular, there is a shift to the decentering of the human being in the universe. No longer is man seen at the pinnacle of the world but rather the jumping-off point through which the world can move forward, for better or worse. Such a shift in the anthropocentric ways of thinking has ushered in the development of posthumanism as a crucial discourse in the world today.

It was perhaps the literary theorist Ihab Hassan (1977) who succinctly summarized this approach by saying that five hundred years of humanism was about to end, and that the time had come for it to transform into something that we cannot help but call posthumanism.

By definition, posthumanism is "the idea that humanity can be transformed, transcended, or eliminated either by technological advances or the evolutionary process; artistic, scientific, or philosophical practice which reflects this belief"

("Posthumanism," n.d.). It's a concept that can trace its origins from such diverse fields as philosophy, futurology, contemporary art, and even science fiction.

Meanwhile, the futurist Ray Kurzweil said, "We will transcend all of the limitations of our biology... That is what it means to be human—to extend who we are," signifying that androids and cyborgs could perhaps be considered human someday (Vance, 2010).

Robert Ranisch (2014) describes posthumanism as an umbrella term that also incorporates transhumanism, clarifying the confusion on the differences between the terms. Both of these terms have common areas of interest, but they differ in terms of their relationship with anthropocentric thought. While posthumanism is ready to envision a future after humanity, transhumanism seeks a future where humans can thrive with the help of technology. Thus, transhumanism still treats humans as the center of the world, in line with anthropocentrism. At the same time, it also acknowledges that without technology, humans will not be able to progress. As such, technology is integral to the future of humanity. The transhumanist view is particularly prevalent in science fiction and popular culture.

#### The posthuman: Rise of the cyborg

The moment that the signifier "posthuman" truly formulated its inherent meaning as we know it today perhaps came with the publication of the essay "A Cyborg Manifesto" in 1985. The piece by Donna Haraway is replete with feminist theoretical contemplations, but it was its synthesis of humans and technology that resonated with many.

To summarize, Haraway's concept of the cyborg is a being that rejects modern notions of boundaries, especially those that separate humans from other animals and humans from machines. In terms of feminism, the cyborg is a representation of women who go beyond the limits of politics, feminism itself, and the traditional associations of gender. In particular, the essay criticizes the traditional identity politics that many feminists are concerned with. As such, the essay has come to be known as a landmark work in the establishment of the feminist posthumanist approach.

In her essay, Haraway (1985) notes that in the modern age, all human beings have been ingrained in technology, so much so that it's difficult to distinguish man from it: "By the late twentieth century, our time, a mythic time, we are all chimeras, theorized and fabricated hybrids of machine and organism; in short, we are cyborgs. The cyborg is our ontology; it gives us our politics" (p. 66). The nature of human beings as cyborgs in this age has given us the avenue to move beyond traditional roles and associations in society. Humans have seemingly become obsolete and the figure of "Man" has been superseded, and thus, we "cannot go back ideologically or materially" (p. 81).

Haraway (1985) goes on to say:

From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints (p.72).

Effectively, the author is telling us that such a world free of boundaries is not something to be afraid of, no matter what science fiction novels and films may tell us. It's a future not predicated on outdated modes of thinking on identity and limitations. Instead, it's a world that tells us that humans may co-exist harmoniously with machines, animals, and everything else in the world.

It's important to note that although Haraway's essay is an important work in the formation of the posthumanist discourse, she has never used the term itself anywhere in her piece. Instead, she talked about how humanism has always made a distinction between man and animal, living beings and machines, and the physical and non-physical worlds. However, modern ways of thinking such as feminism, race studies, technology, and science fiction have blurred these lines, if not eradicated them. Thus, humanism and its absolutist approach concerning the role of man has become unsustainable in the modern age. The concept of Haraway's cyborg is a dualist creature rather than a dichotomy, it blends both imagination and physical reality without the need for distinctions.

Many critics have a problem with the term posthumanism itself. Haraway has rejected the term, while also admitting that her work is aligned in the philosophical sense with posthumanism. For her part, she has coined the term "companion species," which pertains to non-human beings that co-exist with humans (Gane, 2006).

The world has already welcomed its first cyborg in the person of Neil Harbisson, an artist who used to be color-blind and is now able to perceive things beyond normal human sight through an antenna implant. His perception of light is enhanced, and he "hears" visible and invisible wavelengths of light thanks to the vibrations created by the implant in his skull, which he perceives as sound. Through this, he can "hear" colors. He was dubbed as history's first official cyborg after the government of Britain allowed him to wear the implant when he was photographed for his passport (after making the case that it wasn't headgear but an extension of his brain).

According to Harbisson, technological amplifications such as his implant are a natural, and perhaps necessary, avenue for people to acclimatize to a future that is full of uncertainty (Donahue, 2017).

If cyborgs portrayed in fiction are thought to be representations of the effects of the world's shift to a posthumanist epoch, how human are we now that they have become a part of our reality? What is the future of humans? Are we still humans in such a time?

Cyborg anthropologist Amber Case has declared that all of us are cyborgs. In "We are all cyborgs now", she goes on to say:

What does the inside of your computer look like? Well, if you print it out, it looks like a thousand pounds of material that you're carrying around all the time. And if you lose that information, it means that you suddenly have this loss in your mind, that you suddenly feel like something's missing, except you aren't able to see it, so it feels like a very strange emotion. The other thing that happens is that you have a second self. Whether you like it or not, you're starting to show up online, and people are interacting with your second self when you're not there (TED, 2011).

According to Case, this idea of a second self that is virtual is presented as much as the real, physical self. In the same way that humans perform their routines for their actual bodies and daily activities, they also maintain their digital selves. Phones have become "external brains" that are like wormholes that can mentally transport us to connect from one person to another (TED, 2011).

Unlike many science fiction films that serve as a warning about the dangers of technology, Case insists that technology doesn't just get adopted because it works, but because humans use it and it's made for humans. She goes on to say that machines are not taking over but rather helping us connect, which ends up being a more human quality, allowing us to co-create with each other all the time (TED, 2011).

An individual living in the modern age of today cannot expect to succeed or survive without a measure of technology in his life. It's simply a reality that we live with. If a cyborg is someone who transcends the limits of what is human and the distinctions made between humans and everything else, then perhaps it's a term that can be treated as synonymous with the modern human.

#### Is posthumanism the end for man?

The posthuman may seem like the natural step for humans, but some would also say that it's the end of man as we know it. As Jacques Derrida (1969) expounded in *The Ends of Man*, "The ends of man (as factual anthropological limit) is announced to thought with the end of man. Man is that which is relative to his end, in the fundamentally equivocal sense of the word. This has always been so" (p. 44).

Meanwhile, the postmodern critic N. Katherine Hayles (1999) highlighted that the "posthuman" eradicates the idea of a "natural" self, which is deeply emphasized in the "human" context. Instead, the posthuman arises out of the idea that human intelligence is co-produced with modern and intelligent machines: "There are no essential differences or absolute demarcations between bodily existence and computer simulation..." (p. 3). As such, there are no longer any clear distinctions between the human and the machines that help them function.

Hayles (1999) famously said that her dream version of the posthuman is a being that embraces the possibilities of technologies without being tantalized by the notions of unlimited power and immortality. For Hayles, the posthuman recognizes and celebrates finiteness as the essence of a human being, and that human life is interconnected with the complex material world, which is the key to our survival.

With this in mind, it can be said that the posthuman is simply the next step to humanity, despite the idea that many characteristics central to what we think of as humans may have to be altered or transcended.

#### Literature of the posthuman and posthumanist literature

In his keynote speech at the Approaching Posthumanism and the Posthuman Conference in Geneva, Stefan Herbrechter emphasized that there is a difference between the literature of the posthuman and posthumanist literature.

Herbrechter (2015) described literature of the posthuman as the "literary engagement with all figural aspects of human becoming or unbecoming, demise, renewal or transformation" while posthumanist literature is "literature of any materiality – digital or analog, print or computational, textual or hypertextual, multimodal, symbolic or representational – that tries to imagine and to articulate what it is like to be posthuman or human otherwise by creating new subjectivities and, importantly, formal innovation" (p. 7).

Herbrechter (2015) states that the distinction between the two is central to a critical post-humanistic discourse, which asks who will resume the reading when the hero of the story is not human anymore, or if the writing and reading aim to go beyond anthropomorphism. Herbrechter also believes that posthumanism continues the humanistic poststructuralist literary criticism that pervaded much of the 20th century, including the idea that literature and its study should be structured as a defense of the human and human nature and value, in the face of rising scientific and economic developments.

N. Katherine Hayles (1991) has also discussed the shifting position of the literary in much of her works. From her readings of science and literature to her critique of disembodiment, she has since moved on to the rise of hypertext and e-literature. Such a shift in focus is meant to "celebrate the emergence of new computerized forms of imaginative textuality" (p. 695), which was made possible by the rapid rise of digital media. In these conditions, literature occupies a rather peripheral position in mainstream culture, competing with the likes of CGI-infused films and hyperrealistic video games, which in turn encapsulate the arrival of posthumanism and the shift of the humanities into what can be called posthumanities.

Jeff Wallace (2010) also talked about the idea of the literature of posthumanism:

While the literature, or more accurately literatures, of posthumanism still embrace a range of forms that are about the posthuman, from the broad generic categories Science Fiction and cyberpunk to more precise subgenres such as those of the medical thriller (...) and nanotech/splatter fiction (...), the most radical mutation is toward new forms of textuality that demonstrate how we might be posthuman. This apparent challenge to print literature in turn raises interlinked questions of how exactly... print culture and humanism might be interdependent, of how far literature and literary studies are tied to a legacy of humanistic thought, and of how and why a critique of this legacy might be mounted in the name of the posthuman (p. 696).

Posthumanism, whether as the next step in the future of literature or as an avenue for the criticism of literary works, offers a chance for human beings to think about their place in the future of the world. We are already living in a world where we can't live without technology. It only remains to be seen how much further we can go, and how we're going to approach our ways of thinking about it and accepting it.

As illustrated thus far, posthumanism has many modes of thinking. Hicks (2022) emphasizes that this is true for any burgeoning movement in literary criticism, adding that the various thoughts in posthumanism are integral and inevitable to its development as a broad movement. Hicks further posits that what all theorists in the movement would agree on is that posthumanism is a critical intervention that challenges the exceptional view of the human from the humanistic discourse of the Enlightenment.

#### A posthumanist reading of Philip K. Dick's "The Electric Ant"

In describing a posthumanist reading, Herbrechter and Callus (2008) outlined several characteristics, among which is the idea that a posthumanist

reading focuses on the ambiguities surrounding the human. Additionally, it can exploit the ambiguity of the term "posthuman" and it can be critical of both the posthuman and the human and their representations. With this in mind, Guesse (2019) concludes that a posthumanist reading can be produced with any text, such as in literary works that do not necessarily feature posthuman issues or characters. As such, any work can trigger a posthumanist reading. However, it cannot be denied that speculative fiction, especially in the science fiction genre, has a significant hold over the concept, featuring futuristic themes that not only serve to describe what lies beyond humanity but express both fears and dreams as well.

P.L. Thomas (2013) describes science fiction as a genre that develops new worlds that are also often present under the surface of the world as it is today. Many novels set in a dystopian or utopian world utilize this principle, using a futuristic Earth, universe, or space as their setting. Science fiction also presents the big question of whether or not science is ultimately a good thing or a threat to humans at large.

Science fiction novels and stories serve as a reminder to people that while science offers a lot of possibilities for human life, it can also have negative repercussions for humanity. This is especially true in works set in a dystopian future where humans have been displaced. Thus, science fiction works embody the collective anxiety of people towards the looming new era of humanity. Effectively, the realm of fiction serves as the avenue through which human beings can explore the possible effects of letting science and technology encroach upon human life without limitation.

In terms of posthumanistic themes, science fiction already has many laudable examples. One of the most popular authors of the genre is Philip K. Dick. His prolific body of work has spawned some of the most popular science fiction movies and series. Most notably, the 1982 film *Blade Runner* is based on his novel *Do Androids Dream of Electric Sheep*?, which is perhaps his most famous work.

The works of Philip K. Dick often explored philosophical and social inquiries about identity, reality, human nature, and perception, especially in the face of illusionistic environments, alternate realities, authoritarian establishments, substance abuse, and mind alteration (O'Reilly, 2017).

In his 1969 short story "The Electric Ant," a man named Garson Poole lives in a futuristic time where flying cars called "squibs" are the mode of transportation. Poole wakes up after having crashed his squib and finds out that he is missing a hand. We learn that he is the owner of an electronics company in the security industry. Then, his doctor reveals to him: "You're a successful man, Mr. Poole. But, Mr. Poole, you're not a man. You're an electric ant" (Dick, 2016, p. 226).

In the story, an "electric ant" is a robot that is categorized as "organic," with human features, feelings, and thoughts, living with and among humans. The surface structure is very similar to humans: "Natural skin covered natural flesh, and true blood filled the veins and capillaries" (Dick, 2016, p. 227), except that there were wires and circuits deep beneath. Because he's not human, the doctor tells him that he cannot be treated at the hospital. Instead, he has to be sent to a repair facility. He begins to question whether any of his subordinates knew about his true nature and whether any of them purchased him to be a figurehead for the company. He begins to understand that his control over the company may have been a delusion, just like his delusion that he was human. His "owners" were the real owners of the company, who wanted to have an electric ant headlining the business. As such, they were controlling Poole and his perception of reality.

Poole also discovers that a micro-punched tape in the cavity of his chest is what is feeding him what he believes is his subjective reality. He toys with the tape by first covering up some of the punched holes in it, which alters certain things in his reality, such as the abrupt disappearance of a few tables and the people in them in a busy bar, which goes unnoticed by everyone else. Eventually, he becomes so convinced that his entire reality is being hindered by the tape that he cuts it, even though he is warned about the consequences of doing so. When he does it, he is accompanied by his seemingly human secretary, Sarah. After cutting his tape, he eventually "dies" in front of her. His action also affects Sarah, who discovers that her hands and the things around her have begun to appear translucent and vague. By the end of the story, she ceases to feel anything. This raises the question of whether or not Sarah or the others were electric ants as well or if anything in Poole's reality was real at all in the first place.

The story has highly posthumanist themes such as the presence or assimilation of robots in human societies, a future that has been predicted by many. The integration is such that Poole himself is unaware that he is a robot, believing his entire life that he is human. This brings into question how ethical it would be for robots to be introduced in our society, an aspect of posthumanist thought that intersects with bioethics. Poole's owners thought that they were being cost-effective in installing an electric ant to be the head of their company, but once Poole realizes the reality of his identity, he begins to behave independently. This raises the question of how much his owners had control over him in the first place. As such, the story poses a question about the nature of free will, something that we also perceive as essential to being human. Human beings in the modern age are perceived to be free, and when something threatens that freedom, we immediately voice our opinions and do something about it. Poole represents the delusion of freedom that human beings have, especially in society today. It can be said that much of the human population lives highly mechanical lives, ingrained with routines, rules, and restrictions laid down by society. Perhaps the posthuman then is someone like Poole who tries to take charge of his reality instead of letting it dictate how he lives. He is a machine yet he refuses to be one in the end.

Jesse Hicks (2012) states that in Dick's novels, the people could be particularly villainous while the robots were "more human than human" (this phrase also appears as the motto of the Tyrell Corporation in *Blade Runner*). All that is left for them to do is to find their place and their sense of fellow-feeling. Hicks goes on to say that this quality in Dick's writings makes him more aligned with writers whose works possessed strong moral philosophies, such as Leo Tolstoy, rather than with his fellow science fiction authors.

The story "The Electric Ant", especially its ending, is typical of many of Dick's works, which pose existential questions on the nature of reality and our place in it. After all, the world today is becoming more and more akin to a Philip K. Dick novel. Simply put, our world is becoming more *Phildickian*, a term that is akin to that of *Dickensian* and *Kafkaesque* (Hicks, 2012).

In much of Dick's works, there is a tension and struggle between biological humans and the androids who are so akin to humans that they fight for their place in the world. For example, in *Do Androids Dream of Electric Sheep?* the androids are organic in structure and so identical to the biological makeup of humans that only a bone marrow analysis, performed posthumously, can truly determine which is human and which isn't. These robots were created as servants but have rebelled and are hunted down to be "retired."

Perhaps a time will come when the world will have these organic robots, and works such as "The Electric Ant" are forcing us to think about the implications as early as now before we create a world that may not turn out to be ideal for humans after all. If these robots share our reality and our human characteristics, including thoughts and feelings, how moral is it for people to not treat them as humans or for them to be subjugated due to their being inferior to biological humans? Only a posthumanist reading can enable us to think more deeply about a question such as this. Perhaps this is what makes posthumanism as a literary discourse necessary in the current world that we live in.

### Conclusion

Posthumanism is as yet a complex and broad field of study, with different critics, writers, and philosophers offering divergent approaches. However, it possesses a unique role as a crucial line of thought, affecting the world of today and the future in terms of its implications. It helps challenge our notions of what it means to be human and alive, in particular how we will deal with a future where some of our human characteristics, such as consciousness and communication, may exist in a disembodied state completely. This leads us to seek answers to questions on how the present and future of technology could shape our human existence, affecting many areas of our human history, such as language, ethics, and phenomenology. In literary discourse, posthumanism is a necessary step to enable us to reflect on what makes us human in the highly humanistic tradition of literature, and what the role of literature could be amidst a fast-changing world.

### References

- Derrida, J. (1969). The ends of man. *Philosophy and Phenomenological Research*, 30(1), 44. <u>https://doi.org/10.2307/2105919</u>
- Dick, P.K. (2016). The electric ant. *The Eye of The Sibyl and Other Classic Stories*. New York City, NY: Citadel Press.
- Donahue, M.Z. (2017, April 4). How a color-blind artist became the world's first cyborg. *National Geographic*. Retrieved from <u>https://www.nationalgeographic.com/science/article/worlds-first-cyborg-human-evolution-science</u>
- Foucault, M. (1970). The order of things. New York City, NY: Pantheon Books.
- Gane, N. (2006). When we have never been human, what is to be done?: Interview with Donna Haraway. *Theory, Culture and Society, 23*(7-8), 135-158. <u>https://doi.org/10.1177/0263276406069228</u>
- Guesse, C. (2019). On the possibility of a posthuman/ist literature(s). In S. Karkulehto, A. K. Koistinen, & E. Varis (Eds.), *Reconfiguring human, nonhuman and posthuman in literature and culture* (pp. 24-40). Oxfordshire, UK: Routledge.

- Haraway, D.J. (1985). A manifesto for cyborgs: Science, technology, and socialist feminism in the 1980s. *Socialist Review*, 80, 65–107.
- Hassan, I. (1977). Prometheus as performer: Toward a posthumanist culture? *The Georgia Review*, *31*(4), 830-850.
- Hayles, N. K. (1991). *Chaos and order: Complex dynamics in literature and science*. Chicago, IL: University of Chicago Press.
- Hayles, N.K. (1999). *How we became posthuman: Virtual bodies in cybernetics, literature and informatics.* Chicago, IL: University of Chicago Press.
- Herbrechter, S., & Callus, I. (2008). What is a posthumanist reading? Angelaki: Journal of Theoretical Humanities, 13(1), 95-111. https://doi.org/10.1080/09697250802156091
- Herbrechter, S. (2015, June 4-6). *Posthumanist literature*? [Keynote speech]. Approaching posthumanism and the posthuman conference, Geneva, Switzerland. Retrieved from <u>https://www.researchgate.net/publication/279847627\_Posthumanist</u> <u>Literature</u>
- Herbrechter, S. (2020). Posthuman/ist literature? Don DeLillo's Point Omega and Zero K. Open Library of Humanities, 6(2), 1-25. https://doi.org/10.16995/olh.592.
- Hicks, A. J. (2022). Posthumanism. In P. O'Donnell, S. J. Burn, & L. Larkin (Eds.), *The encyclopedia of contemporary American fiction 1980-2020* (pp. 1-10). New York, NY: John Wiley & Sons Ltd.
- Hicks, J. (2012, October 1). More human than human: How Philip K. Dick can change your life. *The Verge*. Retrieved from <u>https://www.theverge.com/2012/10/1/ 3424828/philip-k-dick-festival-science-fiction-change-your-life</u>
- Hortle, L. (2016). *Reading the posthuman: Contemporary fiction and critical theory* (Unpublished doctoral dissertation). University of Tasmania, Australia.
- Kowalcze, M. (2020). The posthumanist methodology in literary criticism. *Forum* for World Literature Studies, 12(4), 707-721.
- Mambrol, N. (2018, July 25). Posthumanist criticism. *Literary Theory and Criticism*. Retrieved from https://literariness.org/2018/07/25/posthumanist-criticism/
- O'Reilly, S. (2017, October 7). Just because you're paranoid...Philip K. Dick's troubled life. *The Irish Times*. Retrieved from <u>https://www.irishtimes.com/culture/film/just-because-you-re-paranoid-philip-k-dick-s-troubled-life-1.3243976</u>
- Posthumanism. (n.d.) In *Lexico.com dictionary*. Retrieved from <u>https://www.lexico.com/ definition/posthumanism</u>
- Ranisch, R. (2014). Morality (of transhumanism and posthumanism). In S. L. Sorgner (Ed.), *Post- and transhumanism: An introduction* (Vol. 1, pp. 149-172). Frankfurt: Peter Lang.
- TED. (2011, January 12). Amber case: We are all cyborgs now [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=z1KJAXM3xYA

Thomas, P. L. (2013). *Science fiction and speculative fiction: Challenging genres*. Rotterdam: Sense Publishers.

- Vance, A. (2010, June 12). Merely human? That's so yesterday. *The New York Times.* Retrieved from https://www.nytimes.com/2010/06/13/business/13sing.html
- Wallace, J. (2010). Literature and posthumanism. *Literature Com*pass, 7(8), 692-701. http://dx.doi.org/10.1111/j.1741-4113.2010.00723.x
- Wolfe, C. (2009). *What is posthumanism?* Minneapolis, MIN: University of Minnesota Press.