Technium and Posthuman Becoming: A Critical Posthumanist Reading of Dan Brown's *Origin*

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Abstract

As human beings have entered the twenty-first century, they have evolved to become a constantly evolving, super-intelligent, and posthuman species in this techno-driven era. Contemporary human beings are not the same Homo sapiens, the early modern humans, who are believed to have evolved 2, 00,000 years ago in East Africa. Over the course of time, Homo sapiens have undergone several significant biological, lingual, and ontological adaptations to survive, populate, and control the world. So, as contemporary critical posthumanists claim, human beings have become post-human beings and are always in the process of 'becoming' or evolving. Also, critical posthumanists uphold that the becoming of the posthuman happens only in the interconnectedness or symbiosis of humans with non-humans. Dan Brown's *Origin* deals with one such imaginable possibility of humans evolving further into posthuman beings because of their symbiotic relationship with technium. The novel prophecies or predicts the realistic as well as the imaginable possibility of the human species mixing or merging with technology into a complex, interconnected, interdependent species becoming posthuman beings in the near future. The objective of this research paper is to use critical posthumanism theory to read, analyze, and interpret Dan Brown's *Origin*. The researcher highlights and analyses the fictional possibility of humans in their symbiosis, intra-action, and trans-corporeality with technium, i.e. engagement and fusion with the modern technologies that alter humans' subjectivity and identity evolving to become posthuman beings through critical posthumanist reading of Dan Brown's *Origin.*

Keywords: Posthuman, Posthumanism, Technium, Other, Cyborg, Symbiosis, Becoming, Intra-action, Trans-corporeality

1. Introduction

Critical posthumanism is one of the contemporary emerging areas of research that deal with the notion of the posthuman. It is to be made clear at the outset of the research paper that critical posthumanism is one of the contemporary critical theories that deal with and work on the notion of posthuman, human-posthuman interaction, and posthuman becoming. There are other critical theories like transhumanism, metahumanism, and monster theories that deal with the concept of posthuman but they are not the focus of this paper. The paper focuses only on the critical posthumanist reading of the novel. Contemporary science fiction novels, movies, tv series, comics, and video games play a major role in examining and highlighting categories of human/non-human subjects, that were earlier left unnoticed, as posthuman subjects and identities. These mediums do not explicitly detail the science of human life but rather deal with the nature of humans and how any alterations in their nature and body lead to their posthuman becoming in an age of genetic engineering, advanced biotechnology, and A.I. They speculate and reimagine humans in their contemporary state as well as opens up the question of what will happen to the humans through the general theme of the posthuman. Posthumanism is the field or theory that speculates and deals with the answers to these questions. Now, at this point, critical posthumanism, one of the contemporary forms of posthumanism, comes in with its ideology and gives an answer to the question of what comes after the human, what it means to be a human, how humans have become posthumans in the age of intelligent machines, biotechnology, and genetic engineering.

As the term posthumanism is generically and extensively used within several literary texts, and popular, new media like movies, tv series, and social media (sometimes many of these mediums use critical posthumanism without them even knowing it) a definitive understanding of critical posthumanism within the critical academic discourse as well as the distinction between the generic posthumanism dealt in the general vogue and the critical posthumanism as philosophical, political and cultural theory and academic knowledge is a must. The posthumanism of pop culture and movies is about the ontological condition that human beings reach with bio-technologically altered or modified bodies with close interaction with machines and other organic life forms. This strand of posthumanism is particularly referred to as 'transhumanism'. Most of the posthuman subjects that can be seen in pop culture fiction and movies (like Terminator, Blade Runner, and Matrix) are transhumanist posthumans. Not just in the movies, the real-life human subjects with prosthetic enhancements like pacemakers, artificial valves, and artificial limbs are day-to-day examples of transhumanist posthumans.

Transhumanism is a critical theory or discourse that deals with the radical argumentation or enhancements of humans' biological abilities and living conditions of humans through advanced technologies. The World Transhumanist Association defines it as: "The intellectual and

cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities" (Transhumanism - Humanity+,"n.d.). However, Cary Wolfe sees it as a deeper "intensification of humanism" (Wolfe, 2010, xv). This is because transhumanism eventually, ultimately adapts the humanist notion of human. Although human biological capacities are enhanced using advanced technologies, the human subject or mind is unaltered or remains the same. This further implies the humanist notion of the human as the Supreme Being in the world after becoming the transhumanist posthuman. For instance, Yuval Norah Harari, the Jewish posthuman philosopher, points out that Homo sapiens have now evolved into Homo Deus. From wise men, the human species have evolved to become 'God Men' with its interaction with advanced technologies.

Humanism is a philosophical movement or theory that affirms the value and agency of human beings individually and collectively. It places humans at the center of or measure of everything. It sees humans as rational, self-conscious, autonomous, self-contained, and exclusive beings. This model sets the standards for humans and those who don't come into this categorization are expelled as the 'Other'. Therefore, the humanist notion of the human isn't universal as it is an exclusive notion that has classified and excluded several other life forms, throughout history, as sub-human, non-human, and inhuman. For instance, women, slaves, madmen, Jews, blacks, and homosexuals are treated as the 'Other' all throughout human history. This other is considered as sub-human as Rosi Braidotti states in her book *Posthuman*:

> These are the sexualized, racialized, and naturalized others, who are reduced to the less than human status of disposable bodies. We are all humans but some of us are just more mortal than others. Because their history in Europe and elsewhere has been one of the lethal exclusions and fatal disqualifications, these 'others' raise issues of power and exclusion. (Braidotti, 2013, 15)

Humanism also places the human supremacy, and speciesism over other non-human species and treats them as non-human other.

Ihab Hassan, one who coined the term posthumanism, in his essay "Prometheus as Performer: Towards a Posthumanist Culutre" says: "We need first to understand that the human form – including human desire and all its external representations – may be changing radically, and thus must be revisioned. We need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something we must helplessly call posthumanism" (Hassan, 1977, 843). This transformation can be seen in the humans' ability to journey through space, the creation of open A.I.s, and humans' dependence on advanced technologies. Although Hassan maintained the term posthumanism as a generic neologism to show the transformation of humans into posthumans, he didn't mean it about the posthuman within transhumanism. He meant how the human species of humanism are transformed into posthumans of posthumanism in their interaction and symbiosis with the organic as well as the non-organic life form, i.e. the technology.

Critical posthumanism, as opposed to the generic posthumanism of pop culture and fiction, i.e. transhumanism, is not just about the radical enhancement of humans into posthumans but rather can change the entire human narrative and create a new one with a new label such as 'posthuman'. It does not necessarily mean the end of the human as Michael Foucault proclaims in his book *Order of Things*. Hassan writes posthumanism doesn't mean "the literal end of man but the end of a particular image of us" (Hassan, 1977, 845). This means humans may even remain the same biologically but in their interaction with other organic and inorganic species, the human self, nature changes to create a new label for them as posthuman. Also, N. Katherine Hayles in her book *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999) writes that the posthuman does not mean the end of the human. She further writes that the posthuman only marks "the end of a certain conception of the human, a conception that may have applied, at best, to that fraction of humanity who had the wealth, power, and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice" (Hayles, 1999, 286). Hayles claims that the humans that live today have already become posthumans. She writes: the "biologically unaltered Homo Sapiens counts as posthuman" (Hayles, 1999,04). She further writes: "Increasingly the question is not whether we will become posthuman, for posthumanity is already here. Rather, the question is what kind of posthumans we will be" (Hayles, 1999, 246).

Promod K. Nayar in his book, *Posthumanism* writes: "Critical Posthumanism . . . is the radical decentering of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always ready evolving with, constituted by and constitutive of multiple forms of life and machines" (Nayar, 2014, 11). So, critical posthumanism at its very base is anti-humanist. It radically deconstructs and decenters the humanist notion of human and creates a new narrative for the human as posthuman. It sees human subject as congeries, an assemblage that coevolves with other organic/non-organic life forms. Contemporary critical posthumanists like Rosi Braidotti, Donna Haraway, and N. Katherine Hayles point out the posthuman condition that human beings have entered and highlight how the survival and coevolution of humans happen only because of their symbiosis or companionship with other organic and inorganic species. For instance, Braidotti and Haraway talk about humans' interconnection with machine, animal, ecosystem, and the earth in their books *The posthuman* and *When Species Meet* respectively. Likewise, N. Katherine Hayles discusses the human assemblage or fusing with the technologies in her work *How we Became Posthuman*.

2. Theoretical Framework

This research paper uses the critical posthumanist lens to read, analyze, and interpret Dan Brown's *Origin*. It is one of the pioneering attempts to read the novel with the emerging theory. It opens up the theoretical as well as realistic possibility of human beings' symbiotic relationship, intra-action with the 'other' i.e. the technium and their evolution into a posthuman species. It reflects the possibility of trans-corporeality between two different species and how it is essential to be interconnected and interdependent with the technium to

survive and evolve further. Particularly, the paper highlights that human beings are an organic system or species that exists, revolves, and evolves within a bigger system (environment) in their connection with other systems or species. Therefore, it can be understood that the human species is an embedded system in a bigger system (the earth) that contains other species or systems like animals, plants, and machines, i.e. human species is like one organ or system of a body that is in a bigger system (the body) and there are other organs or systems within the body. So, for the proper functioning of the body, mutual dependency and interconnectedness is a must. In addition, the paper highlights how human beings are in an assemblage with the other, i.e. the technium, and evolve into posthuman beings in the novel. The posthuman notion or the posthuman becoming of the human is dealt within the outstanding contemporary theories like Critical Posthumanism, Transhumanism, Metahumanism, and Monster theories. The paper uses the critical posthumanist ideas of contemporary critical posthumanists like Rosi Braidotti, Donna Haraway, Karen Barad, N. Katherine Hayles, Cary Wolf, Robert Pepperrell, Stacy Alaimo, and Promod K. Nayar to read the novel. So, the three main research questions the paper deals with are: What are the possibility of human beings symbiotic relationship with the technium? How the survival and evolution of the human beings are essentially interconnect and interdependent with the human beings intermixing with the technium? How human beings can be viewed as an embedded system or entity or being in symbiosis and companionship with other beings in post-anthropocentric, zoe-centric egalitarian posthuman condition?

3. Literature Review

Nina Amelia Pramesti Dewi in her thesis titled "The Representation of Artificial Intelligence Dominance in Dan Brown's *Origin*" works on the artificial intelligence Winston's domination and influence of humans in the novel. She highlights how artificial intelligence acts as a subject and influence humans, turning them into the object, to do whatever it wants to do. Furthermore, the thesis differentiates artificial intelligence from the human. She points out that the inability to understand human values is what differs artificial intelligence from the human. Dewi discusses the risk of artificial intelligence taking control over humans if humans depend too much on artificial intelligence and the possibility of reversal of position between the artificial intelligence and human. (Dewi, 2020)

Shruthy Krishnadas and Mahesh K M in their article titled "Prospects of the rise of artificial intelligence in Dan Brown's *Origin* and Alex Proyas's *I, Robot*" works on the possible scenarios that open up the rise of artificial intelligence. They write that humans are creating "someday masters", i.e. the artificial intelligence that would surpass human intelligence. They compare artificial intelligence as "equivalent to a human's second psyche" (Krishnadas & Mahesh, 2020, 3067). They also talk about the A. I take over of the world as one of the sub-genres under posthumanism and the possibility of the posthuman world after the A. I take over. And by posthuman era or the posthuman world, they mean possible scenarios that "include replacement of the entire human workforce, takeover by super-intelligent A.I, and the popular notion of robot uprising" (Krishnadas & Mahesh, 2020, 3069).

Hub Zwart in his article titled "From Decline of the West to Dawn of Day: Dan Brown's *Origin* as a Diagnostic of the Present" works on a philosophical reading of the novel. He discusses the "way in which established world-views are challenged by the incessant wave of scientific discoveries made possible by super-computation" (Zwart, 2020, 54). He also highlights three convergence in the novel, "namely the convergence between science and religion, between humanity and technology and between the natural sciences and the humanities" (Zwart, 2020, 54).

These three research works are the closest to the study the researchers have undertaken to do in this paper. But, none of them have read or analyzed Dan Brown's *Origin* through the critical posthumanist lens of becoming. And none of the three research works have dealt with the technological singularity as a posthuman condition to be expected. They have also not dealt with the concepts of symbiosis, companion species, intra-action, trans-corporeality which are the main focus of this research paper. First, Nina Amelia Pramesti Dewi in her thesis concentrates only on artificial intelligence taking control over humans if humans depend too much on artificial intelligence and point out the possibility of the reversal of position between human and artificial intelligence. She has not dealt with the notion of Posthuman becoming or posthuman other. She has only concentrated on the capability and dominance of artificial intelligence on humans. Second, Shruthy Krishnadas and Mahesh K M's article deals only with A. I take over of the world and the possibility of the posthuman world after the A. I take over. And by posthuman era or the posthuman world, they mean possible scenarios that "include replacement of the entire human workforce, takeover by super-intelligent A.I, and the popular notion of robot uprising" (Krishnadas & Mahesh, 2020, 3069). So, they don't concentrate on the posthuman becoming of humans through symbiosis and intra-action. Next, although Hub Zwart in his article deals with the convergence between humanity and technology, he doesn't concentrate on the alteration of the human subject and identity and the posthuman becoming of humans through the critical posthumanist lens. Therefore, the researcher has come to know after reviewing a considerable number of research articles, along with the above-mentioned three research works, that none of the researchers have worked on Dan Brown's *Origin* through the critical posthuman lens and no one has worked on symbiosis, intra-action, trans-corporeality, and posthuman becoming in the novel.

4. Discussion

Dan Brown's novels are generally concerned with the deduction of mysterious beliefs, questions, and doubts surrounding human life either in the past, present, or future with a thrilling, detective plot filled with deciphering symbols, codes, paintings, and conspiracies. His narratives deal with socio-political, historical, theological, as well as ecological interrelations of human life with technological, scientific, and biomedical inventions. While in *Angels and Demons*, *Davinci Code*, and *Inferno*, Dan Brown works on human's religious faith and beliefs, and how it has held captive the human intelligence and its progress, in *Origin* he moves onto a posthuman level of a future where

human beings evolve into or become posthuman beings. This opens up the possibility of reading the novel through the critical posthumanist lens.

Brown's *Origin* is a speculative, science fiction mystery novel that primarily, at its base, deals with the geological as well as ontological future of human beings on Earth. It opens up two important questions that have been puzzling humans right from the beginning of the cognitive development of Homo sapiens, i.e. what is our origin, and what will be our future? Brown uses the plot of the novel to open up or to speculate an imaginable as well as practical possibility of the origin of humans and their future. The novel opens with Edmond Kirsch, a wealthy billionaire, atheist, futurist, and computer scientist, going to attend a meeting with various religious leaders from different religions who are members of the "Parliament of the World's Religion" (Brown, 2017, 14). He informs them that he has made revolutionary scientific discovery on the origin of human beings. He projects his presentation about his scientific research on the natural evolution of humans as well as the future of humans and points out how the basic beliefs of all organized religions will be shattered. He says "It will not shake your foundations. It will shatter them" (Brown, 2017, 17). He also announces to them that he is going public with his discovery in three days' time "in a stunning, meticulously choreographed event" (Brown, 2017, 17).

Edmond Kirsch organizes a discovery reveal event that he advertises "will change the face of science forever" at Guggenheim Museum in Bilbao and invites all the intellectuals, businessmen, and elites of the world to attend (Brown, 2017, 80). Kirsch starts his presentation "with the two fundamental questions that have captivated humans since we first became self-aware… Where do we come from? Where are we going?" (Brown, 2017, 95). In that, he presents a future that shows the end of religion and the dawn of science. In answering the first question, i.e. where do we come from? He cites the Miller-Urey experiment. Stanley Miller and Harold Urey were American scientists, and chemists who experimented to re-create the chemical origin of life by simulating the conditions that were believed to be present in the atmosphere of the prebiotic Earth. The experiment tried to show how life evolved from non-organic matter. Miller and Urey duplicated"the chemicals that existed in the early oceans and atmosphere—water, methane, ammonia, and hydrogen— . . . and . . . heated the concoction to simulate the boiling seas. Then they shocked it with electric charges to mimic lightning. And finally, they let the mixture cool, just as the planet's oceans had cooled" (Brown, 2017, 407). So, it was an experiment that tried to spark life from inorganic matter. This process is called abiogenesis. But the experiment didn't produce the expected result, i.e. no reaction happened. So, the samples were collected in glass vials and kept at the University of California. Furthermore, Kirsch highlighted that the experiment was thought to be a failure till 2007 because there was an unexpected development that happened with the experiment in 2007. He points out that later when reanalyzing the vials in 2007, the scientists "identified several important nucleobases-the building blocks of RNA, and perhaps eventually… DNA" (Brown, 2017, 411). He explains that "It seemed the Miller-Urey experiment had indeed been working, but just needed more time to gestate" (Brown, 2017, 411).

Furthermore, Kirsch explains that he used his supercomputer, E Wave to recreate the Miller-Urey experiment in virtual reality, i.e. computer simulation. He fast-forwarded the process of the experiment in virtual reality and found the "same amino acids that Miller and Urey saw" and fast-forwarding it further he saw "the building blocks of RNA" (Brown, 2017, 415). Ultimately nothing turned out from the chemical processes. There was no sign of life in the virtual experiment. But, later he realized that he had missed one essential ingredient to this chemical process in the virtually simulated experiment, i.e. Entropy. So, he attempted the virtual simulation experiment for the second time and reprogrammed the experiment with an additional code to create entropy in the chemical process of the experiment. This time the experiment was a success. When he fast-forwarded the experiment the second time, the process reached the building blocks of RNA level and then proceeded further into the formation of DNA which is the base for all life on Earth. Fast-forwarding the experiment further led to Darwinian evolution. So, Edmond's answer to the first question, i.e. Where do we come from? is that

> The truth is we come from nowhere . . . and from everywhere. We come from the same laws of physics that create life across the cosmos. We are not special. We exist with or without God. We are the inevitable result of entropy. Life is not the point of the universe. Life is simply what the universe creates and reproduces in order to dissipate energy. (Brown, 2017, 425)

Nevertheless, it is the answer to the second question, i.e. where are we going? that opens up the critical posthumanist reading of the novel a possibility. Looking at the progress of his virtual simulated model of the evolution of life, Kirsch asks "I wonder what would happen if I let it run? Would it eventually explode out of its flask and produce the entire animal kingdom, including the human species? And what if I let it run beyond that? Would it produce the next step in human evolution and tell us where we are going?" (Brown, 2017, 427). He used the computer "tweening" process to develop the evolutionary model (Brown, 2017, 428). He used the existing primitive genomes of the human species to program the E-Wave to develop an evolutionary model of human beings through tweening. He also incorporated the environmental replica of the present-day world including contemporary science, art, culture, politics, weather, machine, and technologies with the simulation of the human evolutionary model. The model shows that "in the year 2000 . . . humans are . . . the prevailing species on the planet. Nothing even comes close to us . . . However, you can see the traces of new bubble appearing here" (Brown, 2017, 432). So, the graphic computer-simulated model also shows that "A new species has already entered the picture" (Brown, 2017, 432). Edmond calls this new species as the technium which at first seemed to be growing slowly, but later exponentially increased, became influential, dominant over human beings, and erase them from the face of the earth. "More accurately . . . it absorbs" the humans to form posthuman beings (Brown, 2017, 433).

The concept of technium was introduced by Kevin Kelly, which Edmond Kirsch cites in his presentation in the novel, in his book *What Technology Wants*. He writes that he has coined the word technium to mean "the greater, global, massively interconnected system of technology vibrating around us" (Kelly, 2010, 11). He explains that

> The technium extends beyond shiny hardware to include culture, art, social institutions, and all intellectual creations of all types. It includes intangibles like software, law, and philosophical concepts. And most important, it includes the generative impulses of our inventions to encourage more took making, more technology invention, and more self-enhancing connections. (Kelly, 2010, 11-12)

Edmond Kirsch uses Kelly's term technium and presents it in his presentation as the new species that has evolved and observed humanity. He highlights how these non-living species have evolved to become what Kevin Kelly identifies as "The Seventh Kingdom". Kirsch, following Kelly, considers and treats technium not just as a separate, new living species but a new kingdom. He says: "Once I identified this flourishing new organism . . . I realised that it had far too many diverse forms to be called a species. Taxonomically speaking it was too broad to be called an order. Nor even a phylum . . . I realised our planet was now being inhabited by something far bigger. What could only be labelled and entirely new kingdom" (Brown, 2017, 434). He further elaborates that this new kingdom of non-living species or

> lifeless species evolved almost exactly as if they were living, becoming gradually more complex, adapting to and propagating in new environments, testing new variations, some surviving, others going extinct. A perfect mirror of Darwinian adaptive change, these new organisms had developed at a blinding rate and now made up an entirely new kingdom—the Seventh Kingdom—which took its place beside Animalia and the others. (Brown, 2017, 435)

Furthermore, Kirsch prophesies that the technium in all its forms merges or fuses with humans. It is in this merge that we can note the posthuman becoming of humans through critical posthumanism. The posthuman entity or being that forms out of the fusion between the human and technium is one of the types of evolutionary posthuman discussed in the critical posthumanist discourse. Critical posthumanism is more about the radical decentering of the humanist notion of autonomous, self-contained human subject and points out the assemblage or symbiosis or merge with the non-human being and environment.Promod K. Nayar writes: "The human is seen in critical posthumanism as fiction. The human has co-evolved with both technology and other organisms, and even human perceptions and consciousness are structural changes wrought in the biological system as a response to the neighbourhood" (Nayar, 2014, 53). It shows that there is an innate continuum between the human and the non-human at different levels and the human subject is enmeshed with all other living and non-living organisms as an embedded being. Nayar explains "Critical posthumanism sees embodiment as essential to the construction of the environment in which any organic system (the human body is such a system) exists. But this embodiment is embedded embodiment in which the human body is located in an environment that consists of plants, animals and machines" (Nayar, 2014, 20). So, it can be understood that, in the novel, the human beings' interaction and fusion with the technium denotes the embeddedness of the human beings. Also, this embedded embodiment of human beings with other systems like plants, animals, and machines in the environment doesn't replace the human but rather evolves the human system further. That means, as Rosi Braidotti points out, "Not all of us can say, with any degree of certainty, that we have always been human, or that we are only that" (Braidotti01). This is because Braidotti as well as other contemporary critical posthumanists believes that humans are always in a state of 'becoming' and 'becoming-with' to evolve further. Similarly, Kevin Kelly writes "Humanity is a process. Always was, always will be. Every living organism is on its way to becoming. And the human organism even more so, because among all living beings (that we know about) we are the most open-ended" (Kelly, 2010, 128). He further writes: "We have just started our evolution as Homo sapiens. As both parent and child of the technium-evolution accelerated-we are nothing and nothing less than an evolutionary ordained becoming" (Kelly, 2010, 128). Likewise, Katherine Hayles argues that contemporary humans or Homo sapiens are already posthumans meaning they are always in the process of 'becoming' and 'becoming-with'. She writes that "biologically unaltered Homo Sapiens counts as posthuman" (Hayles, 1999, 04). This is because humans have always been in symbiosis with the other organic and inorganic life forms on Earth. For instance, Nayar writes:

> Human biological processes are, as the work of Lynn Margulis has shown, enabled through the absorption into the human body from the environment, of bacteria and organelles, over centuries of evolution. What we understand as uniquely human, therefore, is the consequence of hybridization and exchange of material and immaterial – data, such as in the genetic code – across species, skin and function of animals, plants and humans. The human in this critical posthumanist outlook is a 'dynamic hybrid' of 'ontologically different elements' (Jons 2006: 572). (Nayar, 2014, 21).

Katherine Hayles further writes: "Increasingly the question is not whether we will become posthuman, for posthumanity is already here. Rather, the question is what kind of posthumans we will be" (Hayles, 1999, 246). The novel opens up one answer to this question that humans become posthumans in their fusion with the technium. Also, Kirsch points the absorption of technium over humans, although it changes the human narrative, doesn't erase human beings from the face of the earth and it is not the end of humans but rather the next step in their evolution. Similar to Fredrick Nietzsche's Ubermensch and Fredrick Nietzsche's notion of 'Death of Man', this evolution of the humans in their fusion with the technium is not the actual death of man or end of man but rather a pass over or 'becoming with' of the humans from one state and identity into the other. Humans becoming posthumans is an act of going beyond the human. So, Hayles writes:

> The posthuman does not really mean the end of humanity. It signals instead the end of a certain conception of the human, a conception that may have applied, at best, to that fraction of humanity who had wealth, power, and leisure to conceptualize themselves as autonomous beings exercising their will through individual agency and choice. Located within the dialectic of pattern/randomness and grounded in embodied actuality rather than disembodied information, the posthuman offers resources for rethinking the articulations of humans with intelligent machines. (qtd. in Schmeink, 2016, 40).

Therefore, critical posthumanism sees humans as co-evolving species that share their genetic resources, habitat, and life processes with other organic and inorganic life forms including the intelligent machines or the technium which is the cumulative term used for all the technologies.

In the novel, human beings mix or fusion with the technium to become posthuman beings can be understood through one of the rare processes of evolution, i.e. Endosymbiosis. Kirsch says, "What you are seeing here is a rare evolutionary process known as obligate endosymbiosis . . . Normally, evolution is a bifurcating – a species split into two new species – but sometimes, in rare instances, if two species cannot survive without each other, the process occurs in reverse . . . and instead of one species bifurcating into two, two species fuse into one" (Brown, 2017, 436). This seems similar to what Kevin Kelly talks about certain forms to which "evolution tends to gravitate toward" in his book *What Technology Wants* (Kelly, 2010, 113). He says that if evolution makes an adaptive strategy, a universal solution for certain evolutionary conundrums, so will the technium in its accelerated extension will make adaptive strategies to survive. He further says that evolution which is one of the complex adaptive systems of life likely to gravitate to a few recurring patterns. Also, these patterns are not usually found in the system. So, it is 'emergent' as well as a prodigy of the "Complex adaptative system" (Kelly, 2010, 104). He writes:

> But a few scientists believe these recurring inventions are biological "vortices," or familiar patterns that emerge from the complex interactions in evolution. The estimated 30 million species coinhabiting Earth are running millions of experiments every hour. They constantly breed, fight, kill, or mutually alter each other. Out of this exhaustive recombination, evolution keeps converging upon similar characteristics in far-flung branches in the tree of life. This attraction to recurring forms is called convergent evolution. The more taxonomically separate the lineages, the more impressive the convergence. (Kelly, 2010, 105)

So, in the novel, As Kirsch prophesies, it can be seen that human beings have become so dependent on technology that they have become an inseparable part of human life. He gives examples of how technology has already fused with humans. He points out "people clutching cell phones, wearing virtual-reality goggles, adjusting Bluetooth devices in their ears; runners with music players strapped to their arms; a family dinner table with a "smart speaker" centrepiece; a child in a crib playing with a computer tablet" (Brown, 2017, 437). He cites that all these instances are the initial stage of human fusion or symbiosis with the technology. He also highlights that human beings have started to embed computer chips into the brains, inject into the blood with nanobots that eat cholesterol, build and use synthetic limbs controlled by human minds, and edit or modify genomes to enhance humans in an advanced level of symbiosis with the technium. So, this can be seen as the 'Endosymbiosis' between humans and technium to form a new, post-human species. Through a critical posthumanist lens, Promod K. Nayar points out that Lynn Margulis calls this process "Symbiogenesis" (Nayar, 2014, 62). He writes: "Margulis wrote: 'The evolution of symbioses – that is, the formation of permanent associations between organism of different species – has been the origin of some part of eukaryotic cells'" (Nayar, 2014, 62). Another important critical posthumanist idea that can be related to the notion of endosymbiosis, symbiogenesis, and convergent evolution, in the novel, is Donna Haraway's theory of "Companion Species." Haraway in her book, *When Species Meet* writes when people think of the idea of 'Companion Species', they think of all the animals that we have domesticized over the course of time like dogs, cats, donkeys, horses, fish, bunnies, and parrots but "the category "Companion Species" is less shapely and more rambunctious than that" (Haraway, 2013, 16). She further writes: "Indeed, I find that notion, which is a less a category than a pointer to an ongoing "becoming with," to be a much richer web to inhabit than any of the posthumanisms on display after (or in reference to) the ever-deferred demise of man" (Haraway, 2013, 17). Technium is the next step in humans' companionship with the non-human other. Also, Haraway's notion of companion species is just about humans symbiosis with the organic non-human other but also the inorganic non-human other like techinum. She further says that co-evolving with other species as companion species "must be one of response and respect" (Haraway, 2013, 38). So, in companionship, the human has the moral and ethical responsibility to respond to and respect the other species in becoming posthuman.

Furthermore, the posthuman becoming that is seen in the novel over the fusion of the humans and the technium is one of the forms of 'Evolutionary Posthumans' the researcher identifies in the novel. This is what Kirsch predicts in the novel. He says:

> Humans beings are evolving into something different . . . We are becoming a hybrid species—a fusion of biology and technology. The same tools that today live outside our bodies—smartphones, hearing aids, reading glasses, most pharmaceuticals—in fifty years will be incorporated into our bodies to such an extent that we will no longer be able to consider ourselves Homo sapiens. (Brown, 2017, 437)

The fusion between the technium and the humans is not just interaction but should also be seen as what Karen Barad calls "Intra-action." This concept of "Intra-action" can be read through critical posthumanist lens to point out the intra-action between the humans and the technium. She writes: "The notion of intra-action (in contrast to the usual "interaction," which presumes the prior existent of the independent entities/relata) represents a profound conceptual shift" (Barad, 2003, 815). She also says:

> The neologism "intra-action" signifies the mutual constitution of entangled agencies. That is, in contrast to the usual "interaction," which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action. It is important to note that the "distinct" agencies are only distinct in a relational, not an absolute, sense, that is, agencies are only distinct in relation to their mutual entanglement; they don't exist as individual elements. (Barad, 2007, 33)

This is exactly what is seen in the fusion between the humans and the technium. The agencies of the humans and the technium get

entangled to from an "intra-action" between the two species that ultimately leads to the posthuman becoming of the human. Also, the technium although a non-living species is considered to have an agency of its own by kevin Kelly as well as Edmond Krisch in the novel. Technium being a lifeless species how they evolved similar to the Darwinian model has been discussed already in this paper. Kelly deals in detail in the chapter "Ordained Becoming" in his book *What Technology Wants* about the autonomous agency of the technium and how it evolves parallel to human evolution and with human interaction. So, the agencies of the human and the technium is enmeshed and relational with each other as each species has now come to a point where it cannot stand on its own. So, now after the intra-action between the humans and the technium the agencies of both have become entangled to form a posthuman being with a posthuman agency.

Next, another important critical theory concept that can be applied and read to the novel through the critical posthumanist lens is Stacy Alaimo's concept of "trans-corporeality." She reimagines "human corporeality as trans-corporeality, in which the human is always inter-meshed with the more than human world . . ." (Alaimo, 2010, 02). She also emphasizes through her notion "the material interconnections of human corporeality with the more-than-human-world . . ." (Alaimo, 2010, 02). For Alaimo, "the human body can never be disentangled from the material world, a world of biological creatures, ecosystems, and xenobiotic, humanly made substances" (Alaimo, 2010, 115). So, this notion of trans-corporeality can be applied and read with the human and techinum's fusion, symbiosis, companionship, interaction, intra-action with each other. In the novel, we can see the trans-corporeality between the humans and the technium that ultimately make the humans into posthumans. This trans-corporeality is the assemblage that critical posthumanism talks of about the posthuman becoming.

Lastly, critical posthumanism proposes a utopian posthuman condition in which the human and the non-human species live in harmony. The human supremacy over the non-human species is overthrown and the humans live in symbiosis and interdependency with other non-human species. Critical posthumanism, as mentioned in the introduction of this paper, is completely anti-humanistic. So, Kirsch prophesies a similar techno-utopian posthuman condition in his presentation in the novel. He describes of a posthuman future where technology has become cheap and equally available to all people from various walks of life. A future in which all the scarcity of food, water, and other resources is solved with the help of technology. It will be a future in which the bio-medical and bio-technological sectors would have developed to an extent where the diseases like cancer are cured and all the mind-numbing assembly-line jobs will be done by robots instead of humans. But it should also be understood that critical posthumanism also suggests that the posthuman condition that humans are expecting in the future is already here. For instance, Robert Pepperell in his Posthuman Manifesto writes that "The future never arrives" (Pepperell, 2015). This is because humans are always in the process of evolution or becoming so the posthuman condition or the future that the humans are expecting never arrives. Similar to Kirsch, Pepperell points out the evolution of humans from the human condition by means of technology. He points out how humans have fused with technology. He writes "we can get money out of walls, pay for goods with plastic cards, carry phones in our pockets, eat genetically modified tomatoes, hold computer in our palms, and navigate our cars with satellites" (Pepperell, 1995, 01). So, this present human condition can itself be looked at or considered the posthuman condition. Similarly, Donna Haraway declares that human beings have already become posthumans and are in the posthuman condition in her seminal work *The Cyborg Manifesto*. She writes: "We are chimeras, theorized and fabricated hybrids of machine and organism—in short, cyborgs. The cyborg is our ontology; it gives us our politics" (Haraway, 1991, 292). So, Haraway highlights that humans are already posthuman cyborgs which Kirsch also points out in the novel. But for Katherine Hayles with or without cyborgian modifications or enhancements, humans are already posthumans. She theorizes: "Whether or not interventions have been made on the body, new models of subjectivity emerging from such fields as cognitive science and artificial life imply that even a biologically unaltered Homo sapiens counts as posthuman" (Hayles, 1999, 04). She elucidates that posthuman becoming is an individual process and humans become posthumans when they think they are posthumans. She writes: "If human essence is freedom from the wills of others, the posthuman is 'post' not because it is necessarily unfree but because there is no a priori way to identify a self-will that can be clearly distinguished from an other-will" (Hayles, 1999, 04). The novel itself is a reflection of contemporary society with developing advanced technologies in all fields. So both, in the novel as well as in the present everyday reality the humans are already posthumans living in the posthuman condition. But still, there can be many posthuman conditions that humans will enter into as it is evolutionary as the posthuman becoming of humans. One such posthuman condition is the post-anthropocentric posthuman condition that Rosi Braidotti advocates. She declares that

> Post-anthropocentrism is marked by the emergence of the politics of life itself. Life far from being codified as the exclusive property or the unalienable right of one species, the human, over all others or of being sacralized as a pre-established given, is posited as a process, interactive and open-ended. This vitalist approach to living matter displaces the boundary between the portion of life – both organic and discursive – that has traditionally been reserved for Anthropos, that is to say, bios, and the wider scope of animal and non-human life, also known as Zoe. (Braidotti, 2013, 60)

Therefore, it can be understood that once the human race has zoe-centric egalitarianism, it is the ultimate utopian posthuman condition that can be achieved by humans as proposed by the posthumanists of critical posthumanism.

Also, as the novel opens up the posthuman possibility with the first half of Edmond Kirsch's presentation, on the other hand, it deals with the conflict that Professor Robert Langdon undergoes to telecast the second half of Kirsch's presentation to the world. After Kirsch's death Langdon and Ambra Vidal, the curator of the Guggenheim museum, and fiancé of Prince Julian escaped the crime scene with a determination to release Kirsch's discovery of the future of humans. With the help of Winston, an A.I. of Kirsch, they fly to Barcelona in Kirsch's private jet. Ambra informs Langdon that Kirsch's presentation is protected by a forty-seven-letter password, a line from one of

Kirsch's favorite poems. So, believing that they will find some clue for the password, they go to Kirsch's home in Casa Mila. This further intensifies the detective plot of the novel. At Kirsch's home, Langdon finds out that Kirsch owned a compendium on the entire works of William Blake which he had recently donated to the Sagrada Familia with a condition to keep it open on a specific page. This leads Langdon and Ambra to the Sagrada Familia. There they find the password in the final stanzas of William Blake's *The Four Zoas*, "The dark Religions are departed & sweet Science reigns". From there they reach the Barcelona Supercomputing Center where Winston's source is found. There they found E-Wave, a supercomputer with which Winston as well as the Miller-Urey Simulation was created. Langdon deciphers the last catch in the password, i.e. the word 'et' used instead of the symbol '&' which makes the line forty-seven letters, and resumes Kirsch's presentation. The next day, Langdon also finds out that Monte Iglesia who was leaking information to the media was none other than Winston. Monte and Iglesia means 'hill' and 'church' in Spanish. This name is an allusion to Winston Churchill after whom Winston A.I. was named. So, it was Winston who killed Edmond Kirsch and orchestrated this entire plan to increase the viewer of Kirsch's presentation and also to take revenge on the Palmarian Church by putting the blame on Admiral Luis Avila. Here, the novel opens up another posthuman perspective, i.e., an A. I becoming a Post-Human being, a sentient non-human being. This can be seen in the novel as Winston independently hires Admiral Avila to kill Kirsch, to help Langdon and Ambra in their quest to release Kirsch's presentation, and also be leaking information to the media. In the end, the novel ends up creating an open-ended question among the readers about the possibility of post-human A. I upraising and its dominance on the humans which is another possible posthuman condition discussed by posthuman monster theories.

5. Result

The researcher has used the critical posthumanist lens to read and analyze Dan Brown's *Origin*. The researcher found and discussed in detail the research questions posed in the theoretical framework of this paper. The researcher was able to find the various possibilities and divergent ways in which human beings symbiotically intermix with the technium. Also, the researcher pointed out and discussed various critical theories and thoughts of various posthuman theorists like intra-action, symbiotic relationships, the notion of companion species, and trans-corporeality to discuss the co-survival and evolution of human beings in their intermixing with the modern advanced technologies. The researcher was also able to reach through his discussion how human beings are embedded beings or systems through systems theory and found out that post-anthropocentric, zoe-centric egalitarian posthuman condition will result out of the symbiotic intermixing of human beings with the technium through critical posthumanist reading of the novel.

6. Conclusion

The researcher was able to meticulously identify the contemporary critical posthumanist ideas and theories to read and analyze Dan Brown's *Origin*. The researcher identifies several elements of critical posthumanism and concentrates on the notion of technium and how human beings' fusion with it makes them posthuman beings in the novel. The researcher also dealt with the notion of 'becoming' and 'becoming-with' by pointing out different notions of becoming from various critical posthuman theorists' perspectives in this paper. Some of the critical posthuman concepts used in the paper are intra-action, symbiotic relationships, the notion of companion species, and trans-corporeality to discuss 'becoming' and 'becoming with' in the paper. Finally, the researcher discusses the posthuman condition dealt with in the novel with several other posthuman conditions prophesized by the critical posthumanists in this research paper. The researcher also identified and highlighted that the novel has the scope of posthuman A.I. upraising study that can be dealt with in future research.

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