



Hacettepe University Graduate School of Social Sciences

Department of English Language and Literature

English Language and Literature

**POSTHUMAN BODIES IN KAZUO ISHIGURO'S *NEVER LET ME GO*, INDRA  
SINHA'S *ANIMAL'S PEOPLE*, AND JUSTINA ROBSON'S *NATURAL HISTORY***

Pelin KÜMBET

Ph.D. Dissertation

Ankara, 2017

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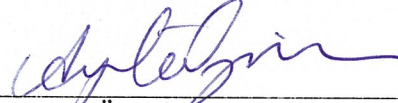
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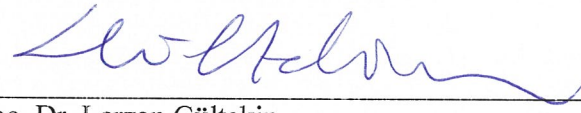
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**o Serbest Seçenek/Yazarın Seçimi**

20/02/2017



Pelin KÜMBET

## ETİK BEYAN

Bu alıřmadaki bütn bilgi ve belgeleri akademik kurallar erevesinde elde ettiđimi, grsel, iřitsel ve yazılı tm bilgi ve sonuları bilimsel ahlak kurallarına uygun olarak sunduđumu, kullandıđım verilerde herhangi bir tahrifat yapmadıđımı, yararlandıđım kaynaklara bilimsel normlara uygun olarak atıfta bulunduđumu, tezimin kaynak gsterilen durumlar dıřında zgn olduđunu, Prof. Dr. Serpil OPPERMANN danıřmanlıđında tarafımdan retildeđini ve Hacettepe niversitesi Sosyal Bilimler Enstits Tez Yazım Ynergesine gre yazıldıđını beyan ederim.

20/02/2017



Pelin KMBET

## ACKNOWLEDGMENTS

A great number of gifted minds, inspirational, thoughtful, and generous individuals stood by me throughout my research and the writings of this dissertation both in academic and personal means. Without their belief in me and their incessant support I would not have seen this work through.

I am first and foremost grateful to Prof. Dr. Serpil Oppermann, my insightful advisor, for her guidance and support along the way. Not only during this dissertation but also during my entire graduate career, she cultivated critical thinking in me, motivated my intellectual growth, and introduced me to wonderful scholarship, which I would not have known otherwise. Most importantly, she has sown the seeds in me in the pursuit of an interdisciplinary approach to the study of humanities, which constituted my foundational departure to my academic journey.

I would also like to express my sincere gratitude to my committee members for their leading questions, comments, and thought-provoking ideas in formulating the framework of my dissertation; first to Prof. Dr. Aytül Özüm, the chair of my committee, who not only helped me sharpen my knowledge through her compelling questions, but also taught me how to stay strong and brave during the academic challenges. Assoc. Prof. Dr. Lerzan Gültekin always gave me a new light with her encouraging words and beneficial remarks to my work, starting with the acceptance of my proposal. I wish to offer my special thanks to Assist. Prof. Dr. Sinan Akıllı for his keen readings in evaluating my work and for letting me draw upon his vast resources of knowledge. The advice I received from Assist. Prof. Dr. Zeynep Atayurt Fenge and conversations I had with her contributed to the final draft of my dissertation and definitely stimulated my further studies. I would also like to thank Prof. Dr. Belgin Elbir, who kindly provided me with invaluable suggestions and vision. I would like to extend my gratitude and appreciation to all professors in the department of English Language and Literature at Hacettepe University, who enthusiastically taught their subject-matter, offered both academic and emotional support, and have been influential in my studies.

I would not have accomplished this work if it were not for the working environment of the department of Western Languages and Literatures at Kocaeli University. I owe great debt to Prof. Dr. Metin Toprak, the head of the department, whose academic integrity, blended with kindness and sense of humour, have always been a continual reminder of how to be a good academician. I feel fortunate to have been closely working with Özgü Ayvaz, Dr. Özlem Temizöz, Sercan Öztekin, my dear roommates/colleagues, who have been incredibly understanding and helpful especially in accommodating our teaching programme to my compelling schedule.

I had an opportunity to carry out productive research at the University of California, Riverside, USA, thanks to the scholarship TUBITAK BİDEB (The Scientific and Technological Research Council of Turkey) granted me with under the International Doctoral Research Fellowship Programme 2214/A. I would like to express my acknowledgment to TUBITAK BİDEB for the scholarship I benefitted during the years 2014-2015.

I am wholeheartedly grateful to Sherryl Vint, a professor of English and media studies and director of the Speculative Fiction and Cultures of Science programme at UCR, whose cherishing comments and fruitful discussions contributed invaluable to my accomplishment. In addition to introducing me to amazing people and getting me to participate in discussion groups as well as seminars, which greatly expanded my horizon, she always offered a gleaming hope and encouragement for my subsequent projects.

Orion Schuh merits special appreciation and profound gratitude, the extent of whose motivation and support is incalculable. Despite the insufficiency of the words to describe his worthwhile presence, I will always be indebted to him for not only making his time for me in challenging times and for his dedication in coming up with a different point of view, but also for the joys and laughter he has brought to my life. Also, it has been such a great privilege to have a true life-long mate, Dr. Gülşah Göçmen, whose presence and friendship have made this journey incredibly beautiful despite all the challenges on the road.

I cannot express my gratitude enough to Erdem Bircan, who have always been there for me, whether I am in tears or joys throughout my graduate endeavours. His generous assistance, kindness, and his encouraging words always put me back on my path. I would also wish to thank Gül Sallan, for her firm belief in me and for sharing beautiful and blissful moments as well as hardship, during this process. Hakan Yılmaz's contribution to my dissertation cannot go unnoticed, not just for his genuine support and constant help, but also for his motivational talks to keep me going. I would also like to offer my sincere thanks to Özlem Özmen and Cemre Mimoza Bartu for being genuine listeners and offering their insights. I will also never forget Dr. İmren Yelmiş's sweet words of encouragement and great hospitality after the meetings with my advisor.

Although I made good friends during my stay at UCR, few of them deserve a special place. Among them, my sincere thanks are due to Gülin Çetin, Gonca-Murat Tandoğan, Demet-Murat Kasap, who made my life in the States meaningful and beautiful. I have cherished their friendship both academically and personally. Our rich conversations filled with laughter and happiness over coffee with Gülin has been priceless. I cannot forget about the amazing dinners Gonca and Murat served and their devoted company at which we exchanged scholarly discussions and experiences. Also, the explorations I did with Demet and Murat have been truly rewarding.

Above all, I am grateful to my parents, Mustafa-Gülşen Kümbet and my brother Kaan Koray Kümbet for their wholehearted support and patience all the way through. They have instilled strength and courage in me to take on every kind of ordeal and have supported me in every way.



## ÖZET

KÜMBET, Pelin. “Posthuman Bodies in Kazuo Ishiguro’s *Never Let Me Go*, Indra Sinha’s *Animal’s People*, And Justina Robson’s *Natural History*,” Doktora Tezi, Ankara, 2017.

Bu çalışma, insansonrası (posthuman) kuram açısından insanın tanımının ne olduğunu, Kazuo Ishiguro’nun *Never Let Me Go* (*Beni Asla Yalnız Bırakma*) (2005) adlı eserinde klonlanmış bedenler, Indra Sinha’nın *Animal’s People*’inde (2007) toksik bedenler ve Justina Robson’un *Natural History*’sinde (2004) siberetik bedenler olarak, üç posthuman beden betimlemesi üzerinde durarak, değişen beden anlayışıyla tartışmaktadır. Bu bağlamda, insan bedeninin insan olmayan diğer dünyadan ayrı değil onunla içiçe olarak algılandığı yeni olası bakış açısı geliştiren insan bedeni ve dünya arasındaki değişmez ve dinamik bağlantı, son derece önemlidir. Her bir roman, insanı kimyasal maddelerle, makinelerle ve diğer insan olmayan varlıklarla etkileşime sokarak, insanın arada kalmışlığını betimlemekte ve insan ve insan olmayan bedenler arasındaki kesin çizgilerle çizilmiş farkların ortadan kalktığını göstermektedir.

### **Anahtar Sözcükler**

İnsansonrası Kuram, İnsansonrası Bedenler, Klonlanmış Bedenler, Toksik Bedenler, Siberetik Bedenler, Kazuo Ishiguro, *Never Let Me Go*, Indra Sinha, *Animal’s People*, Justina Robson, *Natural History*

## ABSTRACT

KÜMBET, Pelin. “Posthuman Bodies in Kazuo Ishiguro’s *Never Let Me Go*, Indra Sinha’s *Animal’s People*, And Justina Robson’s *Natural History*,” Ph.D. Dissertation, Ankara, 2017.

Focusing on three representation of posthuman bodies as cloned bodies in Kazuo Ishiguro’s *Never Let Me Go* (2005), toxic bodies in Indra Sinha’s *Animal’s People* (2007), and cyborg bodies in Justina Robson’s *Natural History* (2004) from the theoretical perspectives of posthuman definition of what it means to be human, this study discusses the changing concept of the body. In this context, the integral and dynamic connection between a human body and the world is of special significance, which opens up new possibilities to reconfigure the human body that is no longer conceded separate from the nonhuman world but embodied in it. Each of the novels significantly displays the in-betweenness of humans by making them interact with chemical substances, machines, and other nonhuman entities, and shows how clear-cut distinctions between the human and the nonhuman bodies have collapsed.

### **Keywords**

Posthumanism, Posthuman Bodies, Cloned Bodies, Toxic Bodies, Cyborg Bodies, Kazuo Ishiguro’s *Never Let Me Go*, Indra Sinha’s *Animal’s People*, Justina Robson’s *Natural History*

## TABLE OF CONTENTS

<b>KABUL VE ONAY.....</b>	<b>i</b>
<b>BİLDİRİM.....</b>	<b>ii</b>
<b>YAYIMLAMA VE FİKRİ MÜLKİYET HAKLARI BEYANI.....</b>	<b>iii</b>
<b>ETİK BEYAN.....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>v</b>
<b>ÖZET .....</b>	<b>vii</b>
<b>ABSTRACT.....</b>	<b>viii</b>
<b>TABLE OF CONTENTS.....</b>	<b>ix</b>
<b>INTRODUCTION.....</b>	<b>1</b>
<b>CHAPTER I: CLONED BODIES IN KAZUO ISHIGURO’S</b>	
<b><i>NEVER LET ME GO</i>.....</b>	<b>42</b>
<b>CHAPTER II: TOXIC BODIES IN INDRA SINHA’S <i>ANIMAL’S</i></b>	
<b><i>PEOPLE</i>.....</b>	<b>76</b>
<b>CHAPTER III: CYBORG BODIES IN JUSTINA ROBSON’S <i>NATURAL</i></b>	
<b><i>HISTORY</i>.....</b>	<b>105</b>
<b>CONCLUSION: TOWARDS A POSTHUMAN(IST)</b>	
<b>ETHICS.....</b>	<b>138</b>
<b>WORKS CITED.....</b>	<b>151</b>
<b>APPENDIX I: ORIGINALITY REPORTS.....</b>	<b>166</b>
<b>APPENDIX II: ETHICS BOARD WAIVER FORMS.....</b>	<b>168</b>

## INTRODUCTION

This dissertation critically analyses Kazuo Ishiguro's *Never Let Me Go* (2005), Indra Sinha's *Animal's People* (2007), and Justina Robson's *Natural History* (2004) within the framework of "critical posthumanism," which introduces a paradigm shift in our understanding of the human. Bringing a conceptual change to the perception of the human, critical posthumanism claims that the human can no longer be seen as an exceptional being, but as an assemblage, co-emerging with other species with whom the planet is shared. Central to this posthumanist vision is the view of perceiving human beings in their "critical enmeshment" (Hayward 65) with the more-than-human world. It is in this sense that critical posthumanism "evokes the exhilarating prospect of getting out of some of the old boxes and opening up new ways of thinking about what being human means" (Hayles, *How We Became* 285). Critical posthumanism presents a liberating vision that collapses not only the disparities between human and nonhuman beings, but also the differences between different ethnic groups, races, genders, and sexes. Certain conceptions with regards to race, identity, gender, sex, and body are also re-visited and re-conceptualised.

The term critical posthumanism was first coined by Jill Didur in 2003 in her article "Re-embodying Technoscientific Fantasies: Posthumanism, Genetically Modified Foods, and the Colonization of Life" to "undermin[e] the originary and hierarchical divide between nature and culture, Man and machine" (101). Almost a decade later, the phrase was elaborately expanded by Stefan Herbrechter in his book *Posthumanism: A Critical Analysis* (2012). In his theoretical framework, critical posthumanism "seeks to investigate the possible crisis and end of a certain *conception* of the human, and . . . contribute to the accelerated transformation of the latter" (*Posthumanism* 3). Herbrechter argues that thinking beyond the humanist conception of the human subject "without giving in to apocalyptic mysticism or new forms of spirituality and transcendence . . . would correspond to the attitude that the phrase 'critical posthumanism' wishes to describe" (*Posthumanism* 3). The word "critical," Herbrechter elaborates, implies "the task of analysing the process of technologization, based on the idea of a radical interdependence or mutual interpenetration between the human, the posthuman and the inhuman"

(*Posthumanism* 21). From his perspective, technology has a pivotal role in critical posthuman paradigm, acting as “a bridge across or a breach of the boundaries between ‘nature’ and ‘culture’ . . . [and] a process of ‘mediation’ between humans and their environment” (*Posthumanism* 21). He concedes that critical posthumanism not only considers the merging of human beings with other species and environment, but also the indivisibility of nature and culture. In this process, nature and culture become “nature(s)culture(s)” where the subject also becomes “natural-cultural-technological” (*Posthumanism* 21). Influenced by Herbrechter, Pramod Nayar in *Posthumanism* (2013) defines the interdisciplinary tenet of critical posthumanism as “*the radical decentering of the traditional sovereign, coherent and autonomous human in order to demonstrate how the human is always already evolving with, constituted by and constitutive of multiple life forms and machines*” (2). This philosophical, political, literary and cultural approach of posthumanism

addresses the question and the definition of the human in the age of technological modification, hybridized life forms, new discoveries of the sociality (and ‘humanity’) of animals and a new understanding of ‘life’ itself . . . By focusing less on ability and agency and emphasizing shared vulnerability, critical posthumanism calls for a radical rethink of species uniqueness and boundedness of the human. (Nayar 3-4)

The focal point of this dissertation will be this notion of posthuman theory as an umbrella term that is nourished by postmodernism, poststructuralism, postcolonial studies, feminist and gender studies, media and popular media theories. However, what this dissertation particularly explores is the human entanglements with other species and agencies in technologically saturated environments. This is not to suggest an erasure of differences among species, but to acknowledge the multiplicity of interwoven differences. Critical posthumanism finds its best explanation through the theories and works of scholars, such as N. Katherine Hayles, Donna Haraway, Cary Wolfe, Karen Barad, Stacy Alaimo, Rosi Braidotti, Jane Bennett, Neil Badmington, Stefan Herbrechter, and others. Even if several of these theorists do not utilise the term “critical posthumanism” to refer to their works, still, their scholarship can relevantly fall under this rubric. Moreover, since critical posthumanism places significant emphasis on the new developments in biotechnology, biomedicine, computer technologies, and artificial intelligence, practices such as the incorporation of technological implants, artificial organ transplantation, or synthetic

drugs, and the pervasiveness of toxic chemicals invading the bodies demystify the idea of a coherent and normative body.

In this sense, posthuman bodies emerge as compounds of humans, cloning technologies, cybernetics, genetics, and toxicity, which are discussed in the selected novels of Kazuo Ishiguro's *Never Let Me Go*, Indra Sinha's *Animal's People*, and Justina Robson's *Natural History*. These novels show how posthuman bodies – cloned, toxic, and cyborg – are contextualised, and how they challenge conventional assumptions that underline our understanding of the human body in the biotechnologically advanced age. Before moving towards an analysis of different posthuman bodily representations in these novels in the subsequent chapters, it is important to examine critical posthumanism in its various aspects as there are many scholars who describe the posthuman condition in many different ways.

Since posthumanism “operates as a site of ambiguity, as a transitional space” (Toffoletti 14), where there is “no consensus on what [it] portends” (Hayles, *How We Became* 251), many diverse scientific, literary, technological, and philosophical approaches have emerged in defining the term. Especially, a wide spectrum of fields of study, from cybernetics, computer technology, artificial intelligence, biomedicine, cryogenics, stem cell engineering to genetics, biotechnology, bioethics, neuroscience, and nanotechnology recognise the term's productivity and efficacy as it applies to their practices. Each of these fields seeks to forge their own outlook, bringing richness and diversity to the posthuman paradigm. As a result, the term posthumanism distinctly conflates a series of diverse approaches that may have both techno-scientific and cultural dimensions. Posthumanism, however, finds its most heated discussion in the fields of cultural and literary studies, and more specifically, in the field of environmental humanities, in which, as an ambivalent term, it generates a plurality of “different and even irreconcilable definitions” (Wolfe, *What is Posthumanism?* xi). Yet, as “dubious neologism” (Hassan 842), posthuman theory sets “a marker for a number of critical mutations unfolding in the Third Millennium” (Best and Kellner 195). Posthumanism, as Stefan Herbrechter notes, has become an “intrinsic part of the cultural imaginary” (*Posthumanism* 48) of our era. This interdiscursivity of posthuman theory and its contemporary progress yields many

interpretations and questions. Moreover, posthuman theory tends to be as culturally and socially diverse and complex, and each theorist chooses to explicate the term in a different manner. This dissertation, however, takes the key attribute of this approach to view the posthuman bodies as an interface of organic and inorganic components, as well as to explore the shifting conception of the human and its fluidity. As Stefan Herbrecher and Ivan Callus briefly outline the underlying reasons in their article “What Is a Posthumanist Reading?” the prevalent understanding of the human has recently shifted immensely

perhaps especially because of the fast technological change that threatens the integrity of the human as a (biological and moral) species, [or] [w]hether it is because of accelerating cultural changes induced by new technologies (bio-, info-, nano-, cogno- . . .) and new media (digitalisation, virtualisation, interactivity. . .), or because of material to the economic base (globalisation, the rise of the information society, environmentalism . . .). (96)

At the core of all current posthuman studies, and what is commonly shared among scholars is the question of what it means to be human, at a time when humanist assumptions are being seriously questioned. An array of theorists and scholars concern themselves with resolving the “crisis of humanism” (Herbrecher, *Posthumanism* 44) in political, philosophical, cultural, and techno-scientific studies, which concisely corresponds to the loss of credibility towards humanist conceptions. Posthuman thought exclusively seeks to either reject or reconfigure the premise of humanism in its endeavour to create new ways and possibilities for better understanding of what counts as human in a technologically mediated world.

Thus, going beyond all normative frameworks of humanism and ostensible ideas situating the human as superior to other biological organisms and material entities, posthumanism, on the whole converges a new theoretical outlook to question the uniqueness of human beings and universally accepted norms of humanism. To clarify, human beings have historically and culturally been placed above all other life forms, and separated from them on the basis that humans possess intellectual, psychological, physical and linguistic capabilities which “others” do not have.

This long-held humanist belief centralises “Man,” representing humanity at the centre of the universe as a fixed, knowable, stable and a unique heterosexual subject that is

“established through a series of exclusions and repudiations” (Thomas 30) against those who are seen as nonhuman or less than human. For humans to operate “various forms of inhumanity needed to be cast out” (Thomas 30), such as people of colour, ethnic and racial minorities, homosexuals, the insane, as well as the animals. These denigrated groups do not meet the “legal codes of the modern west” and the humanist ideal: “the autonomous (white, male, heterosexual) individual” (Thomas 31). In this manner, a celebrated and distinct idea of the human from the West has been associated with reason, mind and rationality, and dominance, whereas the others who do not suit this “intellectual hygiene” (Thomas 30) are associated with body, passivity, irrationality, and submissiveness. They are “sexualized, racialized, and naturalized others, . . . reduced to the less than human status of disposable bodies” (Braidotti, *The Posthuman* 15), and equated with nature to be exploited. They, as Sherryl Vint summarises, can only be “deemed to be part of their natural immanence rather than the cultural world of transcendent mind” (*Bodies of Tomorrow* 10). That is why, they are subjected to constant limitation and stigmatisation.

For three hundred years, this dualistic thinking between the so-called non-normative bodies – female, sexualized, racialized bodies – and normative ones –white, male, straight bodies – have shaped Western ideology which unavoidably paved the way for the dominant anthropocentric worldview. As such, the essential dualism between different types of bodies and humans from different racial groups later exasperated the dichotomy of humans and nonhuman life forms. In this framework, while humans have been praised and privileged, their counterparts have inevitably become the “subordinated term [which] is merely the negation or denial, the absence or privation of the primary term” (Grosz, *Volatile Bodies* 3). Since the establishment of this model, “[w]estern culture has drawn the fault-lines that separate humans, nature and machines” (Graham 11). This worldview, thus, has led to “the justification of the exploitation of the material world and all those entities” (Vint, *Bodies of Tomorrow* 10) within it.

However, with respect to recent findings about “the genetic affinity between humans and ‘almost human’ primates call forth speculation about the nature of the human uniqueness” (Graham 32). Concurrently, “[m]olecular biology and genetics since 1953 (the date of the



identification of the DNA) have transformed scientists' ability to intervene in the process of conception and gestation through new reproductive technology and in genetic modification of plants, animals and even humans" (Graham 2), positing a necessary re-evaluation of the so-called hierarchies among species and above all, of the anthropocentric worldview.

Within the wide landscape of posthuman theory, thanks to current literary discourses as well as techno-scientific and medical advancements, the assumption of the human as the all-powerful being, perpetuated the Cartesian worldview, is falsified. This worldview has also tended to legitimise the instrumental use of nature as rich in exploitable resources and raw materials, along with its inhabitants. Apart from that, this conceptual thinking reinforces the idea that the technological inventions serve the purpose of making nature with its inhabitants easily exploited and dominated, permitting us to stay at the top of the evolutionary lineage. Since posthumanism repudiates this persistent anthropocentric worldview, it is important to trace the perpetuation of inequalities and hierarchies among different species and humans. Cary Wolfe emphasises that there is perhaps no "articulation of a posthumanist theoretical framework for a politics and ethics" not drawn from "the Enlightenment Ideal of Man" (*Critical Environments* 40.3). Posthuman vision emerges as a threat to undermine this self-constitutive ideal humanist subject. At the core of such discussions there resides a continuous reference to humanism and the Enlightenment ideals. This point of reference stems from the challenge posthuman theory brings to the long-established humanist belief in the infallibility of human beings and their superiority over nonhuman life forms. In the humanistic way of thinking, the human is recognised as "the source and agent of all meaning" (Prado 54), and can remain unaffected and mired regardless of the changes in culture, history or technology. Rejecting the doctrines of humanist thought or re-working them, posthumanist approach follows human beings' gradual decentralisation from the higher position as the origin of knowledge, reason, and power. On this basis, the Cartesian conviction that mind and body are separate, where the mind is hierarchically privileged in signifying intellect and rationality, and the body is subjected to the will of the supremacy of the mind, is challenged.

Although critical posthumanism takes the Cartesian construction of the human as a point of departure to critique, the seeds of its development can clearly be traced back to Ihab Hassan's article "Prometheus as Performer: Toward a Posthumanist Culture<sup>i</sup>," published in 1977. As the early pioneer of posthumanism, Hassan writes:

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 re-visioned. We need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism. (843)

In this article, Hassan equates the process of posthumanization with the dramatic rise in technologies and the cyborgization of human beings, as well as the artificial intelligences such as self-driving cars, computer-aided diagnosis systems, and facial recognition programs, which "from the humblest calculator to the most transcendent computer, help to transform the image of man, the concept of the human. They are agents of a new posthumanism" (846). In accordance with his declaration, the posthuman era, from his understanding, is the "cosmological extension of human consciousness" (845) with biological, technological, cultural shifts and precise transformations.

Following Ihab Hassan's provenance, almost a decade later, a highly influential and widely cited feminist theorist and philosopher of science, technology and animal studies, Donna Haraway initiated the recurring discussions encircling the very politics of posthumanism with her 1985 seminal essay, "A Cyborg Manifesto: Science, Technology, and Socialist Feminism in the Late Twentieth Century." This is one of the preliminary posthuman texts, which foreshadows the growing emergence of critical posthuman theory with the multi-faceted hybrid cyborg metaphor. Although Donna Haraway distances herself from using the term posthumanism explicitly, and does not wish to be called a posthumanist scholar, the body of her work she terms "techno-biopolitics" describes the scope of posthuman theory. Her "A Cyborg Manifesto" marks out fundamental posthuman potentialities that have become the source of critical posthumanist vision in particular.

In terms of alerting us to profound posthuman potentialities, “A Cyborg Manifesto” first distinctively explores the eradication of gender differences and marginalisation of certain sexes, identities, and races. Here, Haraway dubs an “ironic political myth faithful to feminism, socialism, and materialism” (149) with an emphasis on the cyborg figure as an “illegitimate offspring” (151). The illegitimacy of the cyborg figure with no genealogical history or parental legacy propels Haraway to challenge the Western patriarchal politics that tend to privilege anthropocentric thinking. Especially in recent interdisciplinary studies, Haraway’s cyborg figure, which she calls “my blasphemy” (1), evokes a subversion of conventional and naturalised gender roles, male gaze, and sexed bodies. As Anne Balsamo also states, symbolising the arbitrarily constructed nature of gender roles, it “open[s] up productive ways of thinking about subjectivity, gender, and the materiality of a physical body” (“Reading Cyborg” 157). For that reason, it has hence become significant that, particularly in feminist scientific discourses, social and political sciences, there emerges a prominent feminist metaphor. Furthermore, Haraway offers a mode of being through which long-lived gender binaries and distinctions are totally wiped out, and as part of her argument rests on deconstructing gender dichotomies, the cyborg image particularly reinforces the interaction of women with technology. Thus, by offering new ways of thinking beyond the persistent phallogocentric, patriarchal, essentialist, and reductive ways of articulating gender, sexuality, body and identity, Haraway proposes a posthumanist conceptualisation of the post-gender world. Supporting this view, Andy Miah evinces that

Haraway’s cyborg must be read, first, as a feminist project located in a desire to reconstitute the identity politics, particularly as it concerns assumptions about gender norms. Yet, a second reading also involves understanding how her ideas have become central tenets for some posthumanist scholars, as it advances the notion of a post-gender world where being a cyborg is preferable to being a goddess. (8)

Apart from dismantling gender binaries, Donna Haraway notably centralises the cyborg figure on the collapse of three key boundaries: between humans and animals, animal-human organisms and machines, as well as the physical and the non-physical realms that have so far preserved “the sanctity of ‘the human’ as a self-contained being” (Gane and Beer 115). The increasing dependency on nonhuman animals to supply cells, organs, and tissues has immensely contributed to the first boundary breach between humans and

animals. The second fluid distinction she mentions between humans/animals/machines is thoroughly crossed with the widespread ubiquity of the twentieth-first century technologies in our lives. The indeterminacy as to whether these technologies can imitate “natural” human behaviour, or can replace some of the basic functions of the human is removed, when they actually become intelligent and able. The third failing distinction occurs between the physical and the non-physical, which can no longer be constituted as separate realms. More precisely, due to the invisibility of the physical manifestations of the recent technologies on our identities and bodies, physicality and non-physicality can appear to be closely interwoven. For Haraway, these boundaries are not stable and can be breached with the help of the cyborg figure.

Just as the separation between these boundaries collapse, so do the distinctions between the virtual and the real. The digital technologies have enabled the creation of new virtual environments where the self can be generated in cyberspace in the form of an avatar without the need of physical existence. These newly created virtual cyberspaces offer “post-bodied” (Graham 4) activities, and “bring about new corporealities and new politics” (Holmes 3). All in all, the cyborg exclusively promises a renewal of relationship between humanity, nature and technology, in a greater intimacy and complicity with environment and artefact, in which the human nature is no longer characterised through mastery and the exclusion of its designated other. In an interview with one of her graduate students, Thyrsa Nichols Goodeve, Haraway expresses that “[t]he cyborg raises questions about our kin among the machines – our kin with the domain of communication – while the primate story raises questions about our kin in the domain of other organisms and raises the question of the nature-culture interface that has been articulated in the human sciences . . .” (*How Like* 106).

It should be noted that as a metaphor for the posthuman, the cyborg figure not only intended to rupture the boundaries between human and nonhuman beings, but it also brings the opposites together. This polysemic cyborg, in this sense, is deemed a congeries of porous and permeable connections, corresponding to “the inextricable weave of the organic, technical, textual, mythic, economic and political threads that make up the flesh of the world” (“Cyborgs and Symbionts” xii). It creates “effects of connection, of

embodiment, and of responsibility for an imagined elsewhere” (“The Promises” 295). Mainly, Haraway’s posthuman approach is set in the boundary zone between human-animals and machines with her cyborg metaphor, as a “transgressive emblem” (Ross, “Creating the Ideal” 26) through which she celebrates the embodiment of “joint kinship with animals and machines” (“A Cyborg Manifesto” 154), and integration between genders, species, and machines. With the cyborg image, she explains this existent con(fusion) between humans and machines: “our machines are disturbingly lively, and we ourselves frighteningly inert” (“A Cyborg Manifesto” 152). As Haraway further elaborates:

The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. In the traditions of ‘Western’ science and politics – the tradition of racist, male-dominant capitalism; the tradition of progress; the tradition of the appropriation of nature as resource for the productions of culture; the tradition of reproduction of the self from the reflections of the other – the relation between organism and machine has been a border war. (“A Cyborg Manifesto” 272)

We can, then, no longer think ourselves merely as biological entities, but as hybrid creatures made of human-machine-animal interfaces. Viewed from the technological angle, our biology can easily be linked to technology so that it can no longer be imagined as untouchable.

According to Haraway, the figure of the cyborg has two functions. The first is the representation of the cyborg as a literal interfusion of human bodies with digital technologies and machinery, turning the bodies into human-machine hybrids, or medical interventions of the human body in the form of implants, chips and silicones to compensate the loss or impairment of the body. The second interpretation of the cyborg is in the figurative sense, which is the metaphorical representation of the politicised cyborg figure, with which Haraway subverts patriarchal, misogynistic, and racist as well as anthropocentric worldviews. That liminal political figure violates all supposedly normative binaries and established beliefs. In this sense, the cyborg is a tool for thinking about the interest and the politics of “other,” and definitions of gender, class, sexuality, identity, women, race, and how these definitions crucially structure the ways in which we arrange our social relations. As a major political figure, the cyborg denaturalises the

ranking and hierarchy among groups and entities by dismantling customary classification and categorisations. When Haraway shifts from the cyborg metaphor to the study of “companion species,” she focuses more on the co-evolving and co-existing relationship between humans and animals based on mutual compassion and respect. Part of Haraway’s concern is the minimisation and alleviation of misery animals undergo. By accepting lab animals as “unfree partners” having agencies (Haraway, *The Companion* 72), Haraway imagines the improvement of both animals’ and humans’ symbiotic lives. That is why, she calls for a more inclusive engagement with the world, dogs, apes, monsters, aliens, or OncoMouse<sup>ii</sup>, which, she calls “creatures of imagined possibility” to help her “grapple inside the flesh of mortal world – making entanglements [she] call[s] contact zones” (*When Species* 4). Despite her changing grounds from cyborg to companion species, Haraway continues to refer to her concept of cyborg as a way of thinking through the interrelations between humans, animals and machines and their agential interdependency. Lastly, in *When Species Meet*, Haraway rigorously underlines the urgency of taking necessary steps to alter our perceptions with regards to differences, which calls upon a critical posthuman embodiment: “urgent work still remains to be done in reference to those who must inhabit the troubled categories of women and human, properly pluralized, reformulated, and brought into constitutive intersection with other asymmetrical differences” (16). Therefore, Donna Haraway has not only contributed to the development of critical posthuman theory but also subsequently influenced other theorists in many ways. N. Katherine Hayles is one of these theorists, who has contributed to the development of critical posthuman theory.

For Katherine Hayles, Donna Haraway’s “A Cyborg Manifesto” is a foundational text that has sparked her interest in a theoretical formulation of posthumanism, and helped her forge a “posthuman point of view” (*How We Became* 2). Participating in the heated discussion concerning the origins of posthuman theory, Hayles refers to Macy Conferences on Cybernetics from 1946 to 1953. Chiefly, in terms of “act[ing] as a crossroads for the traffic in cybernetic models and artifacts” (Hayles, *How We Became* 50), the scientific discussions in Macy Conferences have ignited the development of posthuman ideology. According to Hayles, however, scientists, writers and theorists who took part in the Macy Conferences associated posthumanism with the “fantasies of

unlimited power and disembodied immortality” (*How We Became* 5). Inspired by the informatics and science of the period, in *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999), Hayles examines the disembodiment of knowledge from the body, and cyborg figurations as an emblem of cultural along with technological shift to study the implications of informational and digital technologies, as well as how the notion of “human” gives way to the notion of “posthuman” through the interspersions of these technologies into our lives and bodies. Hayles regards the posthuman vision as a cultural and social construction, emerging from the embodiment of scientific discourses, cybernetics and literary theory to understand “connections between the immateriality of information and the material conditions of its production” (*How We Became* 93). She investigates how these two different approaches can re-shape the notion of the human in the contemporary world of biotechnology and cybernetics.

In Hayles’ theorising, posthumanism is characterised by some crucial points. The first one is privileging “informational pattern over material instantiation” (*How We Became* 2). Secondly, the posthuman view “considers consciousness . . . as an epiphenomenon” (*How We Became* 2), not as a set of identity, such that consciousness is not viewed as an important aspect of humanity. The third aspect of posthumanist discourse is that “the body is the original prosthesis we all learn to manipulate, so that extending or replacing the body with other prostheses becomes a continuation of a process that began before we were born” (*How We Became* 3). The fourth aspect is that the posthumanist discourse can be shaped by the understanding that there are “no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals” (*How We Became* 3).

Pioneering and defining the tenets of posthuman thought, Hayles accounts for technology “as a strategy for survival” (“Afterword” 134), in which the use of technology can be an aspect of posthuman embodiment, rather than something that can threaten our existence. In addition, she underscores the tight bond of humans and intelligent machines in identity construction. Despite its numerous definitions, Hayles avows that most versions of posthuman theory like hers “include as a prominent feature the joining of humans with intelligent machines” (“Refiguring the Posthuman” 312). For Hayles, the posthuman subject “is construed as informational pattern that happens to be instantiated in a

biological substrate” (“Unfinished Work” 160). So, the posthuman represents a “post typographic future in which human and intelligent machine are spliced together in an integrated circuit, subjectivity is dispersed, vocalization is nonlocalized, bodies of print are punctuated with prostheses and boundaries of many kinds are destabilized” (*How We Became* 130).

Hayles’ characterisation of what counts as human is primarily correlated with embracing the complexity of technology in our survival. According to her, any subject who can form and maintain an intimate relationship with technology can well deserve to be called posthuman. However, her understanding of the posthuman body with machine interaction does not simply involve augmentation or compensation for the fragility of the bodies. Thereby, Hayles gives vital importance to technological advancements, not as a particular means to augment the body, but to create a sense of embodiment. That is, the connection between the body and technology becomes the focal point, as Anne Balsamo argues, in “offering a vision of post-human existence where ‘technology’ and the ‘human’ are understood in contiguous rather than oppositional terms” (*The Gendered Body* 684). Rather than differentiating technology from the body, or ascribing technology a single role to enhance the body, Hayles takes it as a means of establishing connection with other bodies. Crucial to the idea of co-construction of humans and machines is the idea that “the enacted and the represented bodies is no longer a natural inevitability but a contingent production, mediated by a technology that has become so entwined with the production of identity that it can no longer meaningfully be separated from the human subject” (Hayles, *How We Became* xii). On the ontological level, “posthumanization” shows that human beings have always been “technological” whether this is mere tool use or a “contemporary physical amalgamation of technological object and human subject (cyborgization)” (Herbrechter, *Posthumanism* 20). Hence, the “posthuman implies not only a coupling with intelligent machines, but a coupling so intense and multifaceted that it is no longer possible to distinguish meaningfully, between the biological organism and the informational circuits in which the organism is enmeshed” (*How We Became* 35).

Hayles’ departure point was an attribution to the idea of “downloading the consciousness into computer” that was developed by robot scientist Hans Moravec. In *Mind Children*



(1988), Moravec underlines the probabilities of transferring consciousness into the computer hardware that repudiates the coherence of consciousness as the marker of identity. Thus, transference of mind to a computer would indicate a cloning of consciousness, and that disembodied consciousness would transcend the limitations of the body, and most probably could make the body redundant in the knowledge making process. The result of this “mind transmigration” (Cook 5) would create “immortal and potentially multiple human existence without a body” (Cook 5). This also means dissociating the mind from the body, making the mind free from the bodily constraints, therefore making the body obsolete. Considering this idea, Hayles remarks that Moravec “is not abandoning the autonomous liberal subject but is expanding its prerogatives into the realms of the posthuman” (*How We Became* 287). However, for Hayles, Moravec has a blind spot in the sense that he disregards taking posthuman as embodiment as he started his argument hinged upon disembodiment, situating consciousness separate from the body. Hayles, on the other hand, is strictly against Cartesian body/mind split; instead, she offers a definition of the posthuman as a new fluid and permeable form of subjectivity, dependent on its environment and emerging in tandem with informatics and computer sciences as “humans are embedded in a complex material world” (*How We Became* 5) and interrelated with nonhuman forms of agency as well. Her understanding of posthumanism is based on the ongoing interactions with other living and non-living beings and, in particular, with intelligent machines, which she calls “seriation” (*How We Became* 14) – continuous interrelations in a rhizomatic way.

Hayles does not see the machines and technology necessarily replacing human beings, but rather all kinds of machines are designed to perform the tasks of human beings so that humans would not need to accomplish them. The roles of humans and machines, therefore, become interchangeable with machines replicating human faculties and functions. Focusing on the notion of “shared partnership” between humans and nonhumans in the process of engaging with each other to challenge the boundary between them, Hayles underscores the active roles of machines. By all means, “the union of the human with the intelligent machines” (*How We Became* 2) comprises her common formulated theme of the posthuman. This irrevocable attachment with the “machine cognizers” (“Unfinished Work” 161) is so intense that it is impossible to

distinguish biological organisms from the informational circuits that the organism is engaged with. Overall, Hayles' philosophical approach to posthumanism builds alternative possibilities of recontextualising human/machine interfaces.

Hayles predicates that the posthuman does not signify the end of humanity or the revival of antihumanism, but redefines the very notion of the human that was thought to be an autonomous, a coherent, and a self-regulating pure being above all others. She proposes that the posthuman subject is an "amalgam" (*How We Became* 3) constituted of many diverse and heterogeneous components. It becomes "a material-informational entity whose boundaries undergo continuous construction and reconstruction" (Hayles, *How We Became* 3). For Hayles, therefore, the human subject is not autonomous, immutable that can be marked by boundaries, but as an embodied being, who incorporates technological prostheses. This new posthuman subject allows for perception of the human subject as connected and dependent on the environment. For this reason, "she talks not of computer simulation, hyperreality or of the possibility of downloading mind or consciousness into a machine, but rather of embodied virtuality and of new forms of subjectivity that are born out of the interface between bodies and computer-based technologies" (Gane 432). In her description of the posthuman model, "it is not a question of leaving the body behind but rather of extending embodied awareness in highly specific, local, and material ways that would be impossible without electronic prosthesis" (*How We Became* 291). However, one should underline that in Hayles' articulation of the posthuman subject, the body does not necessarily have to be always invaded by any sort of "non-biological component" (*How We Became* 4). She makes this very explicit when she states that it is

important to recognize that the construction of the posthuman does not require the subject to be a literal cyborg. 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. (*How We Became* 4).

As she further re-emphasises, the posthuman's "defining characteristics involve the construction of subjectivity" (*How We Became* 4) whose features co-evolve with technological artefacts and other forms of life. This suggests that Hayles calls for critical posthumanism, which celebrates human embodiment with other species in the more-than-

human world, and its embeddedness in the information technologies. This is her dream as she claims:

my dream is a version of the posthuman that embraces the possibilities of information technologies . . . 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. (*How We Became* 5)

The pursuit of the significance of the material existence marks the nature of Hayles' discourse of critical notion of the posthuman. It does not necessarily make the human obsolete, nor does it supersede the concept of the human, but meticulously interrogates the established categories in terms of gender, identity, race, body, and sexuality. Thus, the term refers to both our "ethical concerns" and "epistemological concerns," which are inextricably interwoven. One deals here with "the issue of anthropocentrism, including our assumptions about species membership and disability, . . . gender, race and nationality," and also with "assumptions about knowledge in order to demonstrate the fluidity of concepts, like that of 'the human'" (Harfield 271). The ethical concerns include the problems of annihilation of species, discrimination of certain groups, and domination of certain species, while epistemological concerns are on the basis of reconfiguration of the borders between the human and other entities on earth.

In this context, both Hayles and Haraway distinctively propose new affirmative approaches to subjectivity, body, gender, and identity, as well as portraying interrelated and mutually-shared lives with subjugated life forms. At the core of both Hayles' and Haraway's analysis of posthumanism lies the disintegration of the liberal humanist subject. To this extent, both Katherine Hayles and Donna Haraway substantially offer analogous critiques of humanist assumptions. They both aim to expose the misogynistic and anthropocentric premises of humanism, which they openly delineate as the root cause of domination and suppression. They both consider posthumanism to be the erasure of the notion of infallible human beings, as human beings are freighted with technology and science. Thereby, the close interrelation with technology has reinforced the idea that hierarchical and traditional dichotomies can be skewed.

The ubiquitous presence of Haraway and Hayles' theories can be observed in many subsequent posthumanist accounts. Especially, Donna Haraway's ideas and her inspiring cyborg metaphor have influenced many environmental feminist thinkers, such as Stacy Alaimo, who also argues that the polymorphous cyborg metaphor has helped blur significantly the sharp distinctions between human bodies and other bodies within the material world. As Alaimo notes, this provocative figure is acknowledged and appreciated by contemporary critics due to the fact that it "uproots the founding dualisms of Western thought, including the nature/culture opposition, . . . [also] blurs the boundary between humans and technology" ("Trans-Corporeal Feminisms" 243). It should therefore be recognised as a compound entity embracing both human beings and nonhuman equally. Although this critical entity has been predominantly taken metaphorically and embraced as "a social and technological *construct*," it is, "for the most part, . . . a materiality which is as biological as it is technological, both fleshy and wired, since the cyborg encourages 'human kinship with animals' as well as with machines" (Alaimo, *Bodily Natures* 7). For Alaimo, more than perceiving it as a deconstructive emblem, the reception of the cyborg should be "embraced as an amalgamation of 'human' and 'nature'" ("Trans-Corporeal Feminisms" 243). Alaimo specifically concentrates on the inextricability of human beings from all organic and inorganic substances in the environment. She elaborates her posthuman theory via her concept of "trans-corporeality," which she describes as "the time-space where human corporeality, in all its material fleshiness, is inseparable from 'nature' and 'environment'" ("Trans-Corporeal Feminism" 238). Thus, for Alaimo, one of the best ways of critically exploring the embodiment of human bodies with the larger environment and "the material interchanges" between them is trans-corporeality. It offers "a new materialist and posthumanist sense of the human as perpetually interconnected with the flows of substances and the agencies of environments" ("Oceanic Origins" 187). Alaimo seeks to overturn the grounding belief that the environment is out there either as a beautiful background, or as an exploitable resource distant from culture, and human beings being part of that culture, as distinct and infallible figures, are superior to that environment. In contrast to this fundamental assumption that nature and human beings are separate, what she claims is that "nature, the environment and the material world itself signify, act upon, or otherwise affect human bodies, knowledges and practices" (*Bodily Natures* 8). So,

nature cannot be external to culture; similarly, material self cannot be deemed disconnected and disengaged from the environment.

By accounting for the nonhuman life forms, including plastics, geological formations, silicones, from all species to the smallest substances, Alaimo also suggests that, “understanding the substance of one’s self as interconnected with the wider environment marks a profound shift in subjectivity . . . the existing of anything – any creature, ecosystem, climatological pattern, ocean current – cannot be taken for granted as simply existing out there” (*Bodily Natures* 20-21). These trans-corporeal interrelations and movements between human and nonhuman agencies signify “post-humanist new materialism,” (“New Materialisms” 282) to highlight our entanglement with beings, forces, and substances that flow within and through our bodies like toxins, bacteria and viruses.

Turning away from the idea of a disembodied body as an informational network toward the human body as a crucial site of emergent material intra-actions, Alaimo specifically calls attention to the porousness of the borders separating bodies from their environment. The bodies become extremely vulnerable to the flows of the material agencies in the environment. She says, “new materialist theories should not divide human corporeality from a wider, material world, but should instead submerge the human within the material flows, exchanges, and interchanges of substances, habitats, places and environments” (“Taking Turns” 281). By “bring[ing] the material, specifically the materiality of the human body and the natural world into the forefront” (Alaimo and Hekman, “Introduction” 1), this approach directs our attention to the inseparability of the corporeal substance of the human from the substances of the material world. As Serpil Oppermann also argues, new materialist scholars like Stacy Alaimo, “work to theorize this permeable materiality where all bodies are knottily interfaced” (“From Material” 274).

Within the complex dynamic of various extensions of posthuman theory, the new materialisms can be thought as one of the many stimulating discourses in the re-consideration of our bodily embodiment with the shared material world. In this sense, as Oppermann clarifies, posthumanism “[c]omposing what increasingly seems a shared

platform . . . is the site of . . . various theoretical threads of new materialisms – among them material feminisms, eco-materialism, agential realism, prismatic ecology, and material ecocriticism [which] converge to produce new epistemological configurations” (“From Material” 274). She proposes posthumanism as an umbrella term encompassing these theoretical threads, in which it functions like a “perturbed middle space where many crisscrossing discourses mingle to consolidate a non-anthropocentric humanism” (“From Material” 274). Thus, newly emerging fields such as material ecocriticism, material feminism and the new materialist posthumanism are noteworthy within the broader context of posthuman theory. Whether it is the new materialisms, or material ecocriticism, these emerging paradigms “elicit not only new anthropocentric approaches, but also possible ways to analyse language and reality, human and nonhuman life, mind and matter, without falling into dichotomous patterns of thinking” (Iovino and Oppermann “Introduction” 2). Through the incorporation of what Haraway has called “naturalcultural” practices, they challenge the anthropocentric way of thinking. This critical posthumanist acknowledgment of human beings “not at the center of the action calling the shots” (Pickering 26), but inextricably mingled with the material world indicates we are entering a totally new era in human history.

It is important to underline that it was Karen Barad who opened the way with her formulation of a material feminist framework with her book *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (2007). In fact, she has been very influential to Stacy Alaimo in her formulation of the concept “intra-action,” which emphasises the mutual symbiotic interaction between entities without one trying to supersede the other. Informed by her theories, Alaimo directs our attention to how the material self is closely and ostensibly tied to nonhuman others, and how they are in complex intra-actions with each other. She writes that “the world is made up of intra-acting agencies, rather than distinct beings and objects that separate the humans from the trans-corporeal subjects [that] grapple with ‘environments’” (“Thinking” 13).

What is noteworthy in Barad’s formulation that has inspired many scholars like Stacy Alaimo, and opened up a new space for critical posthumanist thinking is the fact that cutting agency “loose from its traditional humanist orbit,” the traditional view that agency

is “aligned with human intentionality or subjectivity” (“Posthumanist Performativity” 826) is subverted. Barad argues that agency is not something only belonging to the human; rather, she says, “[a]gency is a matter of intra-acting; it is an enactment, not something that someone or something has . . . Agency is an attribute whatsoever – it is ‘doing’/‘being’ in its intra-activity” (“Posthumanist Performativity” 826-27).

Of utmost importance to Barad’s theory is the agency she attributes to all entities on the planet. In other words, agency that does not only belong to the human as discrete subject. Moreover, she repudiates the hierarchical order set between material agencies. Her revolutionary term “‘*intra-action*,’ (in contrast to the usual ‘interaction,’ which presumes the prior existence of independent entities/relata)” (“Posthumanist Performativity” 815) has been pivotal in critical posthuman theorising. While interaction between entities, which signals that there are disparate entities existing prior to their interaction, intra-action points to the idea of mutual becoming process. In her conceptualisation, no entity whether it is human or nonhuman is prioritised or privileged. On the contrary, Barad reconfigures the concept of the human through incorporating it with other material agencies. Thus, she claims that agencies “rather than viewed as independent objects with inherent boundaries and properties” can only be considered “*distinct in relation to their mutual entanglement; they don’t exist as individual elements*” (*Meeting* 33).

Additionally, Barad emphasises agencies’ ontological inseparability from each other with her term intra-action as it epitomises “a disruption of the metaphysics of separateness” (Hammaeström 208). She calls this “posthumanist performativity,” which she explains as something

that incorporates important material and discursive, social and scientific, human and nonhuman, and natural and cultural factors . . . [It] calls into question the givenness of the differential categories of “human” and “nonhuman,” examining the practices through which these differential boundaries are stabilized and destabilized” (“Posthumanist Performativity” 808)

This reveals that Barad’s posthumanist performativity echoes the same compelling arguments critical posthumanism shares by “taking account of the entangled materializations of which we are a part” (*Meeting* 384). As opposed to “a Cartesian (inherent, fixed,

universal) subject-object distinction” (*Meeting* 175), Barad proposes to re-articulate the human subject as part of nature. Having an agency, Barad argues, nature is no longer “a passive blank slate” (*Meeting* 181) that we can relentlessly shape for our sake. Especially, highlighting the inseparability from nature, the relationships that humans establish with the nonhuman world can only be based on what Barad calls “mutualistic symbiosis” (*Meeting* 63). Whether we are conscious of our actions, or we feel responsible about our ontological entanglements with the others or not, we should understand that our bodies can never be thought separate from other bodies and other agencies. They always intra-act with other flows and movements. As Jane Bennett also states, “there was never a time when human agency was anything other than an interfolding network of humanity and non-humanity; today this mingling has become harder to ignore” (31). Another theorist Timothy Morton explains this network in terms of what he calls “mesh,” which also describes the interrelatedness and mutual dependence of all material phenomena. In short, these terms, “intra-action,” “trans-corporeality,” and “mesh,” bring new dimensions to the changing notion of the human and its interrelated intimacy with the more-than-human world. Yet, more importantly, they shed light on our moral responsibilities to other species which we have tended to underestimate so far.

However, it is the major posthuman theorist Cary Wolfe who particularly with his book, *What is Posthumanism?* (2001) has directed our attention to the critical and ethical acknowledgement of nonhuman animals. He points to the fact that, up to now, “[t]he capacity for reason, the ability to enter into contractual agreements or reciprocal behaviors” (“Flesh and Finitude” 62) have become the markers of humanness that divides the human from these “fellow creatures.” His scholarship offers “a fundamentally posthumanist set of coordinates” (*What is Posthumanism?* 127) through which he gives voice to our ethical and political concerns about nonhuman animals so that “new lines of empathy, affinity, and respect between different forms of life, both human and nonhuman” (*What is Posthumanism?* 127) can be achieved. In his endeavour, Wolfe’s focus on pinpointing unjust treatment of nonhuman animals, particularly in xenotransplantation and pharmaceutical experimentations, makes up one of the fundamental problematic aspects of posthumanism. Thus, Wolfe calls into question the cruel treatment of animals and emphasises their rights as sentient beings. For him, humans



and animals have precisely “shared finitude” (*What is Posthumanism?* 80) in terms of behaviour – that we both share the same evolutionary history, we suffer, feel pain and die, in stark contrast to what René Descartes claims. The dehumanisation of animals and the exertion of violence upon animals is unjustifiable within his posthuman thought. According to Wolfe, the relocation of nonhuman animals from their experimental value to the recognition of their mutual partnership is urgent. Wolfe’s conceptualization of posthumanism, therefore invites us to

fully comprehend what amounts to a new reality: that the human occupies a new place in the universe, a universe now populated by what I am prepared to call nonhuman subjects. And this is why, to me, posthumanism means not the triumphal surpassing or unmasking of something but an increase in the vigilance, responsibility, and humility that accompany living in a world so newly, and differently, inhabited. (*What is Posthumanism?* 47)

The posthumanism Wolfe describes also enables us to contemplate “material, embodied, and evolutionary nature of intelligence and cognition” (*What is Posthumanism?* 120), as well as language which is not the sole property of “Homo sapiens,” but other living entities also have their own language. Calling ourselves “human animals, part of the evolutionary history and behavioral and psychological repertoire of the human itself,” he argues, human beings can only be reconceptualised with regards to the “entire sensorium of other living beings” (*What is Posthumanism?* xxiv). To further his argument, Wolfe finds parallelisms between cruel treatment of animals and the unequal treatment of the disabled people, which, on the basis of his argument, is perpetuated by humanism “that grounds discrimination against nonhuman animals and the disabled in the first place” (*What is Posthumanism?* xvii). Drawing on Jacques Derrida’s *The Animal That Therefore I Am*, (2008) which predicates to “cross the frontiers of anthropocentrism” (104), Wolfe addresses the problematic nature of speciesism and anthropocentrism within the posthuman sphere, and Wolfe argues for the inclusion of animal studies in posthuman philosophical discourse with a focus on ethics.

Considering the notion of humanism in the posthuman perspective, Wolfe suggests “rethink[ing] the notion of the human” (*Critical Environments* 42), and offers a palpable model of “post-anthropocentric,” and “post-speciesist” approach, which is not entrenched

in the humanist conception. This is, he thinks, what is necessary in contesting humanism and in defining posthumanism. Wolfe argues that posthumanism

comes both before and after humanism: before in the sense that it names the embodiment and embeddedness of the human being in not just its biological but also its technological world . . . [I]t comes after in the sense that posthumanism names a historical moment in which the decentering of the human by its imbrication in technical, medical, informatics, and economic networks is increasingly impossible to ignore. (*What is Posthumanism?* xv-xvi)

For him, posthumanism “points toward the necessity of moving beyond the philosophical implication of humanism to a more complex and layered description of this we call human” (*What is Posthumanism?* xv). Therefore, he describes posthuman subject as the extension of the human. This extended posthuman subject, he proposes, enables us to transform our deep-seated perceptions of stable identity, organic body, and distinct autonomous self.

Another posthuman scholar is Sherryl Vint whose *Animal Alterity: Science Fiction and the Question of the Animal* (2013) also calls attention to the recognition of animals as fellow beings and “for a new conception of subjectivity and a concomitant new human/non-human sociality” (154). In a prevailing endeavour, Vint touches upon the instrumental use of animals as “standing-reserve” (*Animal Alterity* 18) for exploitation and consumption. The hierarchical status predominantly excludes animals, which, for Vint is problematic and she argues that this attitude should be dismantled with a cultural paradigm change so that animals do not exist for human use and benefit. The use and genetic alterity of animals for medical research, pharmaceutical practices, and xenotransplantation considerably turn them into “patented creations of human culture” (*Animal Alterity* 11), thus these animals often cannot live outside the labs and research centres in which they are created. Literary texts, the science fiction texts in particular, she contends, would help us rethink our relations to nonhuman animals and call for transformation, underlying our ethical and moral entanglements with the nonhuman world. She says, “[t]hrough such complex ethical entanglements we strive to make a posthuman future that respects the multispecies world in which we live” (*Animal Alterity* 181). In this context, Vint’s new insights in animal status and their social, material and biological existence, equally helps us conceive what it means to be human.

The pursuit of nonhuman ethics also comprises the salient feature of contemporary feminist philosopher Rosi Braidotti's critical posthumanist methodology. Rather than merely concentrating on the nonhuman animals, she states, "all living species are caught in the spinning machine of the global economy" (*The Posthuman* 7), which instrumentalises all equally. The "global commodification of organisms," is characterised by Rosi Braidotti as the "perverse form of the posthuman" (*The Posthuman* 7). That is to suggest that while the biotechnological intervention in life forms including animals, seeds, cells, plants and bacteria have made it possible to extend human lives in technologically-mediated societies, "in substance, advanced capitalism both invests and profits from the scientific . . . and the commodification of [these] lives" (*The Posthuman*). She denounces that the "posthuman era is ripe with contradictions" (*The Posthuman* 51) in terms of both proliferating positive and negative outcomes. That is to say, the contingency of borders between the human and the nonhuman has engendered transformative possibilities, especially such as stem cell research, xenotransplantation or organ transfer, or the use of them in pharmaceutical or cosmetic applications. On the other hand, the darker side of that view is that these possibilities have become the living material for escalated capitalism to exploit, victimise or sell the nonhuman animals to the global market. So, they are

manipulated, mistreated, tortured and genetically recombined in ways that are productive for our bio-technological agriculture, the cosmetics industry, drugs and pharmaceutical industries and other sectors of the economy. Animals are often sold as exotic commodities and constitute the largest illegal trade in the world today, after drugs and arms, ahead of women. (*The Posthuman* 8)

Braidotti ascribes "bio-genetic structure of contemporary capitalism" responsible for the disruption of "trans-species egalitarianism" (*Nomadic Theory* 41) and sustainable ecosystems. Despite unveiling the destructive effects of capitalism and the global economy on "eco-sophical unity" (*The Posthuman* 92) in a global scale, Braidotti relies on the critical posthumanist model, which always has the liberating and transgressive potential to bringing up new alternatives and becomings.

Like most theorists conceptualising posthumanism, Rosi Braidotti takes the liberal subject as an initial point of critique, and theorises posthumanism by replacing this subject

with a more flexible, affirmative and progressive posthuman subject. According to her, this subject is in a constant process of becoming. She argues that recent alternative views on the forging of the new self signals a “post-anthropocentric turn” (*The Posthuman* 38): “Sexualized, racialized and naturalized differences, far from being the categorical boundary-keepers of the subject of Humanism, have evolved into fully fledged alternative models of the human subject” (*The Posthuman* 38). Braidotti situates this new subject,

within an eco-philosophy of multiple belongings, as a relational subject constituted in and by multiplicity, that is to say a subject that works across differences and is also internally differentiated [and] expresses an embodied and embedded and hence partial form of accountability, based on a strong sense of collectivity, relationality and hence community building. (*The Posthuman* 49)

Her radical posthuman subject proposes inter-connections, not in the sense of a “shared form of vulnerability” (*The Posthuman* 50) against a common threat or danger, but in a state of “becoming” with other species in the flow of interaction. By attributing the posthuman predicament to moving beyond humanist limitations and embracing “becoming-other-than-human beings,” Braidotti proclaims to employ the term posthuman as an emancipatory and affirmative concept like Haraway does with the cyborg figure. She says, “humanism’s restricted notion of what counts as human is one of the keys to understand how we got to a post-human turn at all” (*The Posthuman* 16). With a particular focus on new ways of understanding the notion of the human, Braidotti’s posthumanism “traces a different discursive framework, looking more affirmatively towards new alternatives” (*The Posthuman* 37). This affirmative paradigm shift can be applied to biopolitical discourses in raising awareness against animal mass slaughter, hyper-surveillance, as well as providing ethical concerns and political positions regarding the exploitation and eradication of some species. Toward this objective, Braidotti takes “the posthuman predicament as an opportunity to empower the pursuit of alternative schemes of thought, knowledge and self-representation. In her own words, “the posthuman condition urges us to think critically and creatively about who and what we are actually in the process of becoming” (*The Posthuman* 12). As it can be clearly seen in *The Posthuman*, influenced by Gilles Deleuze and Félix Guattari, she rests her arguments on their nature of “becoming” (238), which indicates “various assemblages and individuals, each of which groups together an infinity of particles entering into an infinity of more or

less interconnected relations” (294). “Becoming,” which is an always evolving process, needs to be understood as a substitute of thinking in dichotomies. “Becoming” is about, as Braidotti predicates,

... a decentred and multi-layered vision of the subject as a dynamic and changing entity. The definition of a person’s identity takes place in between nature-technology, male-female, black-white, in the spaces that flow and connect in between. We live in permanent processes of transition, hybridization and nomadization, and these in-between states and stages defy the established modes of theoretical representation. (*Nomadic Theory* 2).

Braidotti emphasises the invigorating potentiality of the posthuman subject in that “it ultimately unifies all species under the imperative of the market and its excesses threaten the sustainability of our planet as a whole” (*The Posthuman* 63). It can help us avoid commodification of all lives, experimentation on animals for the sake of profit in the global economy, and excessive consumerism that threatens the preservation of different species and sustainability of the environment. As beautifully summarised by Stefan Herbrechter in a review of Rosi Braidotti’s *The Posthuman*, her posthumanist politics is comprised of three facets: “the development of new subjectivities, the embracing of a posthuman ethics, and the construction of an affirmative posthumanist politics – all three required for the construction of sustainable alternative futures, and for extending present ‘horizons of hope’” (“The Posthuman” 2).

Virtually all scholars writing about posthumanism have strongly criticised humanism premised upon the idea of “Man” as “the measure of all things,” while bringing a new and fresh dimension to it. Notwithstanding, it is a British scholar Neil Badmington, who discusses the humanist ideology, which has paved a way for posthumanism to spring up as a challenging discourse to its tenets. Neil Badmington’s treatise on posthuman theory hinges upon revealing this historical investigation of posthumanist thought emerging from the humanist tradition in which he claims, René Descartes is “one of the principle architects of humanism” (“Approaching Posthumanism” 3). However, the highly ideal image of “Man” that the humanist ideology advocates is later harshly criticised by Neil Badmington, who seeks to overturn the hegemony of anthropocentrism with the recognition that “‘Man’ is (always) already a falling or fallen figure” (“Posthumanism” 240). He later concedes that, “[a]nthropocentrism always already contains the conditions

of its own transcendence” (“Theorizing Posthumanism” 19). The very critique of the apprehension of human beings as autonomous, immutable, free-willed rational beings, and as the masters of the universe was one of Badmington’s primary focuses.

In theorising posthumanism, Badmington emphasises “the importance of . . . poststructuralist theory in the posthumanist landscape” (“Theorizing Posthumanism” 10). He specifically draws attention to Mich el Foucault as an exemplary figure for his critical emphasis on the destabilisation of the essentialist and autonomous human form. Foucault’s widespread contention of the “death of man,” (*The Order* 302) implicitly evoking the end of human exceptionalism and hierarchical positioning of the liberal humanist subject is crucial in Badmington’s posthuman theorising. In addition to Foucault’s placement of “man” as a historical phenomenon that is on the brink of its end, which fractures the unity of human subjectivity, his subversion of the Enlightenment inheritance of rationality and individuality is equally significant. As Badmington avers, this overemphasis on rationality and “normalcy” has led to the understanding of “less humans” to emerge – insane, homosexual, criminal – that Foucault put under observation.

Therefore, for Badmington, Foucault is a significant figure in terms of the discussions encircling the “end of humanism,” which from his own political stance signifies the end of the sovereign Western subject. Foucault states that “one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea” (*The Order* 387). He disregards this human subject, because he claims contemporary societies and democracies have granted him too much power on this western “Man” to regulate and subdue “others.” As Neil Badmington underlines, this dethronement of the Western human subject from its particular exclusionary position, which Foucault endorses, has been invaluable for the progress of posthuman theory, most notably critical posthumanism.<sup>iii</sup> However, Badmington also raises his concern, which is that associating Foucault’s premise of the “end of humanism,” or anti-humanism with posthumanism would be a fallacy. So, despite drawing upon Foucault’s theories as an initial starting point, this is not to suggest that posthumanism means the “end of man,” or the end of humanism. It in fact invokes the end of certain conceptions regarding “man.” That means we should no longer reckon this subject as the “privileged and protected center because humans are no longer – perhaps

never were – utterly distinct from animals, machines and other forms of the inhuman . . .” (Badmington, “Posthumanism” 374).

Disdaining the analogy of posthumanism with anti-humanism, Neil Badmington professes that the posthumanism which has already taken place in cultural and critical practices, is a “working-through of humanist discourses” (“Theorizing Posthumanism” 22), not entirely disengaged from the legacy of humanism. Even though Badmington prepares the historical ground for challenging humanist thought, rather than endorsing an anti-humanist approach, his contextualisation of posthumanism is to re-describe humanism in a new fashion.

Similar to Badmington, Timothy D. Harfield emphasises the importance of not disregarding humanism which he proclaims to be incomplete and in a constant progressive flux. Harfield also focuses on the fruitfulness of the humanist tradition, with the potential for bringing up new perspectives upon the very problems posthumanism seeks to address. To signify the permeability and oscillation of the term posthuman, and its fluidity, another scholar Elaine L. Graham proposes the term “post/human,” which “both confounds but also holds up to scrutiny the terms on which the quintessentially human will be conceived” (11). It signifies that “‘human nature’ is as much a piece of human artifice as all the other things human beings have invented” (37). Graham’s posthumanist analysis is marked by the intersection of the world of techno-science, bioethics, cultural theory, contemporary postmodern science fiction, myths, religion, and the ethical implications of technologies in the fundamental understandings of human nature, identity, sexuality and integrity. She scrupulously examines different representations and cultural manifestations of “otherness” drawn from a wide range of movies, novels, popular myths, and media images to express the interpenetration of boundaries between humans and the uncanny beings. To put it tersely, although Graham does not bring new dimension to the posthuman studies that has not already been foregrounded, she still manages to direct our attention to the repression of “others” during the process of humanist convictions. This vividly recalls what Badmington speaks of in *Alien Chic: Posthumanism and the Other Within* (2004) with regard to aliens, which overall symbolise the subjugated “others” in the cultural underpinnings, yet with the

advent of posthumanism they “might well be expected to find themselves welcomed, *loved*, displayed and celebrated as precious treasures” (3).

In addition to posthuman scholars, who particularly focus on our entangled relations to nonhuman life with a touch of our moral, political, and ethical commitments, there are some other posthuman thinkers who prefer to explore posthumanism mainly from a techno-scientific perspective, while equally contributing to the flourishing of critical posthumanism. Their chief insight is to characterise the techno-culture marked by a significant evolutionary change due to the accelerating pace of scientific, biotechnological, and medical innovations. Their critical posthumanist vision “emphasize[s] a technofuturism that melds human and machine” (Alaimo, *Bodily Natures* 150), more eloquently explained by Robert Pepperell in *The Posthuman Condition: Consciousness Beyond the Brain* (2003) with the following lines:

Humans have imagined for a long time that the ability to develop and control technology was one of the defining characteristics of our condition, something that assured us of our superiority over other animals and our unique status in the world. Ironically, this sense of superiority and uniqueness is being challenged by the very technologies we are now seeking to create, and it seems the balance of dominance between human and machine is slowly shifting. (3)

These thinkers have articulated posthuman engagements of techno-human interface, which transform our conception of the self beyond the restrictions of the flesh of the body. In this view, human flesh is called “wetware” as an indication of an “interface between technological hardware and infotechnological software” (Herbrechter, *Posthumanism* 53). It is the bodily transcendence and augmentation through the implications of computer and biological technologies that have allowed advanced interventionist technologies to supersede the intellectual and physical capabilities of the human body. Since the biological body ages, through nanotechnology, genetics and cybernetics, this “wetware” can be remodified and recreated. These breakthrough technologies, especially in biotechnology, have compensated many people’s deficiencies; nonetheless, in an era of rapid flux, the use of technologies has shifted from overcoming the impairments to augmentation of the normally functioning body to be more precise and efficient like the machine itself. The expansion of lifespan, compensation of frailties and treatment of untreatable diseases create



the dream and the breathtaking possibility that humanity can actually develop the technology to create qualitatively new kinds of beings. These might take the form of fully artificial, yet fully living, intelligent, and conscious creatures – perhaps humanlike, perhaps not. Or they might take the form of a race of “new humans” that is; bionic or cyborgian people who have been enormously augmented and extended physically, mentally, and emotionally (Perkowitz 12).

The philosopher Nick Bostrom, among the scholars writing in this line, for instance, falls under this maxim, and firmly believes in the transcendence of the weaknesses of the body via technological means allowing the normal notion of human morphology to be expanded. In this climate of biotechnological advancements, bio-informatics and nanotechnology, some scholars are driven by the viable means of genetic transformation, pharmaceutical developments, and prosthetic technologies to overcome the limitations and fragility of the biological body.

This is practiced by Australian performance artist Stelarc, who have had prosthetic technologies inserted into his flesh to surpass the body's limits. His ongoing performances include the experimentation on the relations between the body, technology and art. In 1982, Tokyo, Stelarc attached a prosthetic third-arm and hand to his right forearm. It was controlled by the electrodes placed on the muscles of his legs and abdomen. Later, he could use the hand separate from the other arms, and it has become part of his body. He says, “[a]s interface the skin is obsolete. The significance of the cyber may well reside in the act of the body shedding its skin” (“Parasite Visions” 119).

Most of Stelarc's performances involve debunking the notion of a pure and natural body, which he states can be enhanced via the technological prosthetics. In this sense, it can be said that Stelarc provides “corporeal actualization of posthumanism [that] generates an alternative discourse” (Farnell 110). Stelarc stages live cyber performances to show his experimentation:

What Stelarc is doing, with wit, intelligence, and a keen dramatic sensibility, is extending his own nervous system into nonbiological space, while allowing other people's nervous systems to invade, manipulate, and parasitize aspects of his biological body. In fact, even this may paint too simple a picture, for what Stelarc ultimately cares about is neither simple extension nor simple contraction. Instead, he cares about the possibilities for new kinds of collaboration, skilled action, and intimacy that cyborg technologies provide. (Clark 118)

By this very efficiency, his body being under radical mutation, acts as an interface with these technologies. The parameters of the body and its limited capacities can be breached and extended through these visions. “[R]ather than enacting the loss of the body into technology and media systems,” his explorations of bodily enhancements “suggest a new kind of corporeality [that] is created in the mix of biological and information systems” (Toffeletti 126).

Much like Stelarc, Kevin Warwick, a professor of cybernetics, also by having a chip implanted under his skin, wanted to experience the same feeling as a cyborg would have. He says, “I was born human. But this was an accident of fate – a condition merely of time and place. I believe it’s something we have the power to change” (22). For the purpose of this cyborgian transformation, he performed a couple of experiments on his body. First, he implanted a silicon chip in glass under the skin of his arm, which sent radio signals by a kind of antenna. He planned to measure if he could manage to send signals through that implant to and from a computer. After this experiment, he noted that he felt “like the implant was one with [his] body” (229). By means of the implant prosthetics technologies, Warwick contends, the human body will be enhanced in such a way that when we look to the future, it will supersede its limitations, increase information acknowledgement, and improve communication.

The use of prosthetics, as David Wills states in *Prosthesis* (1995), was firmly employed around 1704 to replace the missing part of a body with an artificially constructed one. In other words, the term prosthetics indicates an instrument designed to compensate and replace the missing part of an organ such as a lost or amputated limb, so that the body can function as would a normal body. However, recent prosthetic technologies can be designed to transcend the normal capacities of the body resulting in a potentially enhanced and improved body. David Wills draws attention to the double meaning and employment of prosthesis. On closer inspection, prosthesis

pointing to an addition, a replacement, and also an extension, an augmentation and an enhancement, has become a staple in the armory of metaphors or tropes that are utilized by intellectuals, scholars, students and practitioners who are concerned with interactions in general between the body and technology in modernity as they figure a conception of prosthetic lives in our posthuman times. (Wills 2)

Theorising the notion of prosthesis in a posthuman framework, or in terms of the enhancement of human beings and their biological betterment, Susan Squier in *Liminal Lives: Imagining the Human at the Frontiers of Biomedicine* (2004), coins the term “liminal lives.” She defines liminal lives as the “transformation we are all undergoing as we become initiates in a new biomedical personhood mingling existence and nonexistence, organic and inorganic matter, life and death” (4). Thus, the lives encompass both human and nonhuman characteristics in the biomedical age. Squier borrows the notion of liminality – of “being on a threshold” between one state and another (247) from anthropologist Victor Turner, and extends this conceptual metaphor to explain our biological and cultural reconceptualisation. In her view, the normal human lifespan is too short and organs fail too quickly. The key argument in her book is that, in times of in-vitro fertilization as well as tissue and organ transplantation, the expansion of the average human lifespan could come to fruition. The advanced biotechnology and bioethics, she underlines, has complicated the normal features and capacities of the human body and the “natural” life expectancy. Thanks to the improvements in vaccination and sanitation, we can boost our immune system and surpass this limited longevity to live longer and stay much healthier by decelerating the aging process. As Francesca Ferrando reminds us, we have a tendency to “envision the possibility of broadening human potential by overcoming aging, cognitive shortcomings, involuntary suffering and our confinement to planet Earth” (“Posthumanism” 27). Our natural human capacities can be magnified and our bodies can be reengineered and redesigned to be better functioning bodies. Similarly, Squier predicates: “I view human beings living in the era of these biomedical interventions as liminal ourselves, as we move between the old notion that the form and trajectory of any human life have certain inherent biological limits and the new notion that both the form and the trajectory of our lives can be reshaped at will . . .” (9).

In this sense, posthumanism resonates with “transhumanism,” which is a movement that explores the extension of basic human standards and humans’ capabilities through the elimination of disease and suffering, as well as delimitation of life span. Nick Bostrom defines transhumanism as “the intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through

applied reason, especially, by using technology to eliminate aging and greatly enhance human intellectual, physical and psychological capacities” (4).

Because transhumanism privileges a futuristic vision of biological life in hardware systems, intelligence-augmented minds, uploaded consciousness, extended life span, genetically modified health and smart drugs, the underlying idea is to create superior human beings with extraordinary skills. This evidently can reinforce the hierarchy among species and the abuse of other beings who do not possess expanded consciousness, extended lives or augmented bodies. In this sense, also characterised by Cary Wolfe as “an *intensification* of humanism” (*What is Posthumanism?* xv), transhumanism regards human beings as distinct advanced forms that can be optimised via certain technologies. Therefore, having “roots in rational humanism” (Bostrom 3), transhumanism can be characterised purely as a linear progression of Enlightenment ideals and Cartesian legacy. Posthumanism and transhumanism differ from each other in the sense that while posthumanism, most notably critical posthumanism, is founded upon enhancing interconnectivity within our ecosystem, transhumanism is focused on enhancing differences from others, and privileges the human. In other words, posthumanism is concerned with the expansion of equality among all entities, placing overreaching emphasis on their intra-activity, but transhumanism, focusing on the human as a distinctive entity, embraces technological progress only for humanity’s enhancement.

However, in some critical accounts and texts, transhumanist and posthumanist ideas or issues are strongly intertwined with each other, and thus it can be hard to distinguish one from the other.<sup>iv</sup> This understanding, however, raises moral issues, as the “morality of human enhancements [has] become polarized” among different posthuman interpretative groups (Miah, “A Critical History” 79). Andy Miah, for example, touches upon how posthumanism operates on the two opposed groups, between those sided with “perpetual becoming of posthumanism” (“A Critical History” 98), enmeshed with nonhuman animals and technology, and the other group which is concerned with what this “becoming” might “bring about the erosion of spiritual essence of humanity” (Graham 6). What’s more, stepping towards “reproductive cloning, and the mass production of desired types” would unavoidably lead to the appearance of “new (genetic) hierarchies”

and “modes of discrimination” (Best and Kellner 2008). Nonetheless, this creates fears and anxieties. Stefan Herberchter, in *Posthumanism: A Critical Analysis* mentions the underlying anxiety and scepticism towards rapidly increasing radical technologies, which he terms as “prosthetization and cyborgization.”

Bionic hands, implants for epileptics, ‘smart drugs’ – these are signs that human prosthetization and cyborgization have been advancing. They coincide with the digitalization and virtualization of the cultural environment and the life practices of humans and their others. The anxious question is to whether the next stop of human evolution on its supposed way to posthumanity will create new forms of injustice, discrimination, exploitation and repression, or whether the stage of posthumanity will in turn lead to the complete disappearance of the human species. (28)

Francis Fukuyama’s dystopian articulation of the posthuman condition, in *Our Posthuman Future: Consequences of the Biotechnology Revolution* (2002) similarly exemplifies such fears and the ethical controversies, as well as moral concerns arising in the posthuman world. Drawing particular attention to the ethical and political dimensions of the posthuman world, his explanation of posthumanism relies on the idea that biotechnology and modern scientific developments would be a threat to integrity, continuity, and the nature of human beings. Concurrently, Fukuyama gives voice to the possibility “the posthuman world could be the one that is hierarchical and competitive and the one that currently exists and full of social conflict” (218). The augmented fear towards it stems from the idea that it would escalate the devaluation of humans, absence of human values, aggravated discrimination among groups, transgression of our moral providence, as well as dystopian consequences and the erasure of human subjectivity. Having said that, Fukuyama has politicised the term posthuman, and employed it as a warning against commercialisation of human cells and organs, massive corruption, as well as the misuse of biotechnology. Thus, it is important to recognise that even if some approaches to posthumanism are clouded by suspicion, by a fear of loss of humanity, or by the erosion of categories that could be interpreted as “a threat to ontological hygiene” (Graham 20), the discourse straightforwardly challenges the prevailing belief systems and their humanist foundations. It scrupulously opens them to considerable debates in terms of gender politics, the substantial inclusion of technology, science and new paradigms in medicine and biology, and the situation of nonhuman animals and machines.

As has become obvious, there emerge various conflicting definitions of posthumanism: some consist of unsettling contemplations of the posthuman world, ostensibly filled with fearful scenarios, some distinctly advocate human enhancement. Even if there is no all-inclusive definition of posthumanism, the destabilisation of individual autonomous subject marks the prominent critique of it. Posthuman narratives and theories thus foreground the deconstruction of the sovereignty of human beings who are at the centre of the universe exploiting the natural world. To this end, critical posthumanism opens up a more inclusive approach to studies seeking to embrace entities formerly believed to be separate and inferior. Its pivotal job is “to develop alternative, more egalitarian, democratic and just models for a future posthuman(ist) society” (Herbrechter, *Posthumanism* 23).

This more inclusive critical approach regards the self as an assemblage creating rhizomatic connections and sustaining relationships with nature, culture and the inanimate, as well as subjugated beings, the categories of which are each porous and permeable. In this sense, critical posthuman theory expands the focus to the embodiment of the nonhuman realm in a “post-dualistic, post-hierarchical modes” (Ferrando 30). This notion of posthumanism endorses the mutual interaction with other life forms that used to be regarded as inferior and exploitable. Thereby, critical posthumanism as a fundamental approach of this study, takes the subject not just interfacing with technology, or embracing solely animals, but as an assemblage constituting a partnership with animals, material agencies, and machines equally. The human with its features including consciousness, qualities, skills and abilities, co-exists with organic and inorganic forms, as well as informational technologies and networks. This critical posthumanist vision calls particular attention to “the ways in which the machines, the organic body and the human and other life forms are now more or less seamlessly articulated, mutually dependent” (Nayar 8). Conceived as such, posthumanism iteratively regards human beings as “an instantiation of a network of connections, exchanges and linkages and crossings with all forms of life” (Nayar 5). In this viewpoint, our relations with other lives and the natural world constitute the main focus of inquiry.

It is within such framework that this dissertation employs critical posthuman vision as a methodological lens to investigate our cultural, ethical and literary understanding of

nonhuman entities. After all, as Sherryl Vint reminds us, it “has the power to expand our capacity for responsibility and connections with others” (*Bodies of Tomorrow* 26). To this end, this embodying acknowledgement of critical posthumanism will be discussed throughout this dissertation with references to three selected novels, which focus on the human as a hybrid form that historically, biologically, and evolutionary has always been interlinked with other life forms, and today with machines. What lies at the core of critical posthumanism, then is the co-evolution and co-constitution of consciousness, abilities and reasoning with other beings in the ecosystem. Although it acknowledges the human relationships with machines and technology profoundly altering our understanding of subjectivity, identity, sexuality, race and such, its main concern is reconfiguring the human as part of the wider world. As a result, critical posthumanism sees the human subject as an assemblage of human-animal-machine networks, showing the porous boundaries between them. Overall, as a theoretical framework, critical posthumanism will be elucidated more in the chapters with multiple references to scientific, technological, and medical developments in the contemporary world. The criteria of what counts as human/posthuman, the characters’ embodiment with other entities, and their resemblance in the manner of behaviour, emotions or consciousness will be discussed in detail in the three chapters that follow, with the contention that the influence of other life forms and nonhuman animals constitute an indispensable element in the lives of the characters. Each chapter, in this light, analyses a different form of posthuman bodies.

The body has always been at the critical position in terms of intersecting with social, political and cultural matters which shape our understanding of the world. The body in this sense, as Braidotti defines it, is “an interface . . . a field of intersecting material and symbolic forces; it is a surface where multiple codes . . . are inscribed” (*Metamorphoses* 25). However, the body has taken up a new dimension in the wake of emerging posthuman studies, since posthumanism “offers the ultimate possibility of the displacement of the material body from the confines of its immediate lived space” (Featherstone 70). Of particular importance in these studies then is the re-articulation of the body.

No longer seen as pure biological entities limited to their own corporeality, bodies are now “engaged into deep and complex relationships with nonbiological construct, props, aids” (Clark 5). Through their dynamic interplay and engagement with both natural and artificial constructs, the bodies enter into a process of becoming with other bodies, networks, and environments that result in the emergence of posthuman bodies. Livingston and Halberstam define this posthuman body as “a technology, a screen, a projected image; it is a body under the sign of AIDS, a contaminated body, a deadly body, a techno-body; it is, as we shall see, a queer body” (3). Functioning as a threat to essentialist bodily categories, posthuman bodies open up new spaces to interrogate our enmeshment within the material world. Thus, the novels studied in this dissertation provide various representations of posthuman bodies that bring forth a challenge to “the coherence of the human body” (Livingston and Halberstam vii).

The first chapter critically examines cloned bodies as a type of posthuman body in Kazuo Ishiguro’s novel, *Never Let Me Go* (2005). Here, a group of cloned students are raised and specifically programmed to be healthy organ donors for the ones who are considered to be the “real” humans in the society. As part of a scientific experiment, these clones are biotechnologically manufactured for their organs later to be extracted one by one. So, the clones’ one and only purpose in life is to donate their vital organs to “real” human beings in order to extend their life expectancy by replacing their damaged organs. Ishiguro imagines a posthuman world where organ transfer through clone-raising becomes commonplace. Every human being considered to be “natural” has a clone supplement. The clones are disciplined to be humanlike, kept in the dark, and displaced from the mainstream community. They will simply be wasted and die when their organs are indifferently removed from them. Although not explicitly mentioned in the novel, during the experimentation in the laboratories, clones are inserted with different genes and DNA, as well as technological components, making them posthuman subjects. Since they are not naturally born but made to be instrumentally used, they are not viewed as real humans with emotions and sensitiveness. In spite of their less-than-human status, as the novel unfolds, they start to show exceptional human traits. Their display of human emotions and traits make us question what it means to be human. Ishiguro directs our attention to biomedical advancements such as in-vitro fertilization, organ transplantation, cloning and advanced



medicine, which inevitably change our notion of organic body, self, and the natural human. Most importantly, the clones' close resemblance to naturally born humans both in appearance and in character complicates the idea of what counts as real human beings. Their cloned bodies, as embodied posthuman entanglements of biology and technology, in this view, promote a new understanding of subjectivity as products of technological breakthroughs. Depicting a sort of bleak posthuman future, yet taking his story back to 1990s Britain, Kazuo Ishiguro discusses precarious outcomes of life-enhancing technologies. Furthermore, he gives voice to the ethical side of bodily enhancement of a privileged group of humans at the expense of cloned beings.

In the second chapter of this dissertation, toxic bodies in Indra Sinha's *Animal's People* are discussed to show the permeability of the boundaries between material bodies and the physical environments. The story in the novel is deeply rooted in the real-life Bhopal industrial disaster that which took place in 1984, India, where the explosion in the pesticide factory diffused tons of toxic substance into the air, causing injury and death to many people. In the narrative, a similar kind of explosion occurs, fictionalising the Bhopal incident, and one of the survivors of the toxic disaster, nicknamed Animal due to his crippled body, recounts his people's experiences. As a consequence of the toxic catastrophe observed in the novel, there emerges toxic bodies in different shapes. The toxicity and its ramifications that the novel brings forward invoke Stacy Alaimo's concept of trans-corporeality. Alaimo's trans-corporeal understanding of the relationship between bodies and more-than-human environments, in this sense, serves a valid purpose in interrogating the characters' bodies. Since trans-corporeality recognises symbiotic relationships with the environments and the body, and traces the flows between bodies and environment, the toxic bodies in the novel show that "the human" is never "distinct from the background of nature" (Alaimo, *Bodily Natures* 142). Thus, Alaimo's central theoretical term trans-corporeality helps to trace the correlation between the flows of the body and environment in *Animal's People*. As a striking example of trans-corporeality, the protagonist of the novel, Animal's body is permeable and forms an embodiment with the other bodies turning out to be a posthuman toxic body. His posthuman body dissolves the boundaries between the environment and the body, the human and the animal. Even when an opportunity to get a surgery to be able to walk upright again arises, he rejects it,

because it would mean accepting the humanist position. *Animal's People* dramatises a trans-corporeality in which humans and animals ostensibly interface with the environment and with the chemical toxic cloud over the city, which ontologically becomes part of their flesh.

Furthermore, Stacy Alaimo's posthuman environmental ethics where she introduces toxic bodies as posthuman entanglements, is of greater significance for the second chapter of this dissertation where human and non-human life forms within the same environment define each other through distinctively mutual relations in *Animal's People*. The novel thus urges us to develop an environmental ethics "accountable to the material world that is never merely an external place but always the very substance of ourselves and others" (Alaimo, *Bodily Natures* 17). Within this perspective, the novel invites a critical exploration of "how environments [shape] human flesh in a minute and in profound ways" (Nash 8). The literary analysis of toxic contamination mutating bodies irreparably suggests anxieties and concerns towards ecological degradation.

The third and final chapter of this dissertation engages with the emergence of cyborg bodies as an incisive example of posthuman bodies in Justina Robson's *Natural History*. Building on Donna Haraway's cyborgian politics and thus the cyborg figure, the final chapter focuses on the potential, highly advanced posthuman technologies that make it possible to design enhanced humans with extended bodies and consciousness. The hybrid nature of these beings, called the Forged, is composed of both inorganic and organic parts, including human and animal DNA as well as machinic devices and artificial intelligences. Since they converge both biological and technological components, they move beyond the traditional parameters of human beings. The human-machine interfaces in the novel bring about cyborg bodies, transcending the borders of human flesh and redefining our embodied existence in the material world we share with other organisms. Echoing Donna Haraway's cyborg metaphor in breaking down the boundaries between human/machine, human/machine/animal and physical/non-physical, their bodies represent quintessential examples of cyborg bodies.

In the posthuman landscape of the distant future populated with the Forged, Justina Robson also introduces the naturally born humans called the Unevolved, or in some cases, the “old monkey” due to their non-enhanced features. To exceed their unevolved capabilities, they can externally implant technologies which they call Mektek built-ins. By locating the Unevolved and the Forged in a complex network of entanglement in *Natural History*, Justina Robson depicts a posthuman world, but she does not see the advent of the posthuman condition as a mere threat to the integrity of human beings. Nor does she tend to project posthuman technology as something so disastrous as to turn humans into mere machines being devoid of human sensations.

Justina Robson also draws attention to how different genders, races, and types of humans merge, but at the same time to their segregation due to divisive ideologies that set them apart. This is the reason why this chapter particularly explores Justina Robson’s novel within the cyborg framework, as cyborgs question which people culturally, historically and socially count as distinct categories. Therefore, the cyborg metaphor proves to be an important tool in the analysis of the novel which, by representing a hybrid construct of human and machine, posits a challenge to long-standing dualisms such as female/male, nature/culture, body/mind, organic/inorganic, and biological/technological. The cyborg, instead, seeks to reconcile these hierarchically constructed oppositions. However, Robson’s cyborg entities are far from being idealistic as such.

Although cyborgs remind us of our embodied existence, the characters in the novel complicate this. Still, as a potential metaphor for the bodily embodiment, the cyborg is “a dominant social and discursive figuration for the interaction between the human and the technological in post-industrial societies” (Braidotti, “Are Bugs?” 150). Hence, Robson’s vision does not simply signal celebration of the cyborg bodies, by narrowly presenting them as superior and transcendental beings. She rather presents more complicated posthuman subjects whose lives are very much dependent on their interconnections and intra-activeness with other species and agencies.

The very reason why these selected novels stand out as posthuman novels is that the novelists imagine different posthuman settings, where various biotechnological,

biomedical interventions, and cybernetic implantations to the human bodies are commonly applied. For instance, the world of Kazuo Ishiguro's *Never Let Me Go* can substantially be associated with a posthuman landscape in its venture to fundamentally engineer human clones to be utilised as organ reserves for a privileged class of people known as normals. Through the implementation of organ transfer, the bodies "stretch and extend the notion of physicality" (Grosz, *Volatile Bodies* xi) that is congruent with the posthuman notion of the world. While in this novel we observe the biomedical dimension of the posthuman realm intensified by human cloning, complicated organ transplantation, and genetic engineering, in Indra Sinha's *Animal's People* we observe the chemical dimension of the posthuman world. The town in which the story takes place, Khapfur, reminiscent of the real city of Bhopal, India is not only an environmentally ruined, terror-stricken place, but it also is a place where toxic contamination mutates the physical bodies, disrupts psychological orientation, and causes irreparable diseases. This posthuman landscape, with its sickness, devastation, and ecological degradation, vividly recalls an apocalyptic future some posthumanist scholars imagine. On the other hand, the posthuman world of Justina Robson's *Natural History* has advanced in cybernetics and nanotechnology that make it possible to travel in space and terraform other planets. Thus, informed by the prevalent technologies and their possible effects on subject formation, bodily boundaries, sex, gender and race definitions, these novelists introduce their sense of posthuman landscapes shaped by their own vision and perception of reality.

## CHAPTER I

### CLONED BODIES IN KAZUO ISHIGURO'S *NEVER LET ME GO*

Never before have so many people collected, with the most complicated of technologies, so much knowledge about human beings and about possible interventions in the human body. In particular, the transformation of bio-medical inventions into a marketable product is occurring under a more stringent rationality and within a tempo never known to have existed before.

*Medical Enhancement and Posthumanity*, Urban Wiesing

Kazuo Ishiguro's speculative science fiction novel, *Never Let Me Go* (2005), is set in a dystopian futuristic Britain in a parallel 1990s, where human cloning technologies for the purpose of organ transplantation and medical advancements gained tremendous momentum. The novel ostensibly portrays a biotechnologically advanced posthuman society where most of the deadly illnesses and diseases are eradicated, "cur[ing] so many previously incurable conditions" (262). This parallel society is clone-dependent, creating clones "as biological vessels" (Roos 45), which are bred to reach a certain age in a special facility designed for them hailed as Hailsham, and raised there for the sole purpose of being organ-donors. In such a posthuman environment, the growing impact of biotechnology provides an alternative possibility for human beings to extend their life spans and augment their bodies by transplanting organs taken from the clones. This institution of "biotechnological slavery" (Carroll 26) prepares these manufactured clones to be used/abused as a vital resource to cure the organ-failing patients and to prolong their lives. *Never Let Me Go* consists of the experiences and the love triangle of three donor clones recognised as nonhumans by the public, namely Kathy H., Ruth, Tommy, and their fellow friends, who are exceptionally designed to donate their vital organs someday to the allegedly real and natural human beings called "the normals." Modelled on what is called "the possibles," these clones' mere purpose in life is to sacrifice their organs to these "normals" to rejuvenate their bodies. The main protagonist and narrator of the story, Kathy H., and her fellow friends attend the boarding school, Hailsham, which exclusively pays attention to students' creativity, artistic work, bodily health, and literary studies.

During their stay at Hailsham, they grapple with discovering and uncovering truths about themselves. Because they are “drip-fed little pieces of information” (Groes 232), at first glance, they cannot fully grasp their genetic origin and their predetermined fate. Nevertheless, before they leave this disciplinary school to mingle with the outer world, they are told that they are clones and, they should familiarise themselves with the idea of having to donate their vital organs one by one. The story *Never Let Me Go* is told retrospectively by Kathy H, who has been a “carer” (caretaker) for the last eleven years, travelling to and from recovery centres and hospitals all around the country, taking care of “donors” who are on the brink of their “completion,” meaning impending early death after their third or fourth donation. Being a carer delays becoming a donor for a couple of years in service of clone donors’ treatment and helping them get prepared for the following transplantation, however, a carer eventually becomes a donor and starts her/his donations. Thus, *Never Let Me Go* starts with the narration of a carer Kathy H., who, having lost all of her friends, is now at the age of thirty-one, and about to begin donating her organs. In retrospect, Kathy H. shares her past experiences with the reader, and sets upon a journey to unravel the mystery in the narration. Being dependent on Kathy H.’s vague memory and biased viewpoint, the reader is gradually made aware of how cloning technologies are developed in this alternate history and how these clone students are created to run a donation program for the benefit of “normal” human beings.

Using this alternate history within the critical posthuman context, Ishiguro makes us reconsider our understanding of what counts as human by bringing forward these artificially created clones, who bear no difference from the “normals” in the sense of loving, showing care, or losing their temper. Therefore, the ontological gap separating normal human beings and clones is muddled in a number of ways throughout the flow of the narration. Although the society in which the clones are raised is inclined to deny these clones’ humanity, the clones embody strong indicators of humanness, such as self-awareness, agency, affection, and consciousness. A contemporary English professor Myra Seamann notes that in *Never Let Me Go* “being human is revealed as a certain feeling vulnerability and ability to love others, even in the face of one’s own inevitable and ultimately death” (267). Thus, as Seamann underlies, Ishiguro thwarts the expectations and complicates what qualifies as human by making clones act and feel like

ordinary human beings even when they face death. Thus, even though these clones share the same biology, appearance, and characteristics with “the normals,” because they are not naturally-born, and they possess a hybrid DNA, they are not regarded as humans in the humanist conception; they can only have less-than-human status. They thus emerge as palpable examples of posthuman subjectivities modelled on real-life people. In the novel, contemporary biotechnology is not only defined by fusion of technological tools to the body but also biological substances and organisms are incorporated into the bodies to form a biological relation. These biological substances and required genetic material are procured from natural “normals” to genetically replicate the clones that are going to be used to rejuvenate other bodies. This symbiotic relationship “through which this substance is shared, cultured and reproduced technologically” is what Sarah Franklin dubs as “biological kinship” (*Biological Relatives* 99). Thus, being an epitome of posthuman subjectivities, embodying biological materialism drawn from “normals,” and different genes, these clones signify “trans-species hybrids” (Franklin, *Embodied Progress* 212). They belong to “a new order of animate, *trans-viable*, existence that is defined by being designed and made or grown or built, rather than born and bred” (Franklin, *Dolly Mixtures* 3). In his article “Uncanny Sex: Cloning, Photographic Vision, and the Reproduction of Nature,” Steve Garlick claims that “the figure of the clone may be situated in a lineage of the debates over biotechnology, ‘cyborgs,’ and the notion of the ‘posthuman’” (141). So, the novel inaugurates a posthuman world, in which ongoing advances in biotechnology lead to the creation of clones, yet only for the benefit of higher class people. Through the posthuman bodies of the clones, the notion of pure, stable, and natural body is problematised. Their posthuman bodies serve to challenge our conventional ideas about what it is to be a human/posthuman and offer a striking example of peculiar bodily alliance, blurring boundaries between natural and artificial human beings and bodies. It is through this sense of “connectedness, cross-overs, mergers and relationality” (Nayar 32), we observe the critical posthumanist vision in the novel.

Organ incorporation into the bodies of “normals” constitutes one of these posthuman mergers, which paves the way to the emergent of new model of human beings of an unprecedented physical ability, potentially immortal, unlimited individuals. The “normals” are not introduced in the novel as they are overshadowed by the clones;

nonetheless, they are inextricably linked to them by means of an unfair organ delivery system. Depending on the clones for survival, the recipient “normals” are hybrid entities made up of two different beings. These “so-called ‘normal,’ self-contained and sovereign humans are ‘converted’ into [posthuman] life forms living on through their incorporation of, and blurring corporeal borders with, other bodies and organs” (Nayar 1). What emerges is a “different idea of the composite human form, now redefined as a gestalt composed of once disparate human parts” (Sharp, *Strange Harvest* 24) that naturalises the recipient human body. As a result, bodies of “normals” become posthuman bodies as well when their damaged organs are replaced with new functioning ones. Therefore, both the clones and humans participate in a posthuman world: “the clones (against their will) as the techno-scientific posthuman product, and the humans, willfully, through their acceptance that their own existence depends upon and justifies this system of the enforced service (and deaths) of others” (Seaman 265).

As the novel tackles the issues of biotechnology and biomedicine through human cloning and organ harvesting, it fits into the category of science fiction despite the absence of scientific details regarding how the student clones were genetically replicated from their “possibles,” what kind of laboratories they are biologically engineered in, under what conditions their surgeries are carried out, what sort of technologies are implemented, or how this state-run system manages to keep clones alive after they start donations. Hardly mentioning the technological terms, such as clone, donation, or even science, Ishiguro masterfully manages to depict the lives and personal relations of the genetically engineered clone students in a parallel version of contemporary reality. By devising “science-fiction without the technological” (Jerng 381), Ishiguro moves beyond the traditional sense of science-fiction writing. Unlike what we observe in most science-fiction works, “there is no spatial or temporal displacement as . . . the environment is familiar and the students seem perfectly normal” (Kata 411). Be that as it may, this compelling story takes place in a nightmarish alternative history of 1990s Britain, when contemporary debates and controversies about human cloning began to emerge, leading to posthuman discussions. Concordantly, this alternative depiction of 1990s Britain conjures up the idea that posthuman life is upon us with scientific breakthroughs, such as stem cell research, completion of the Human Genome Project, gene splicing,



xenotransplantation, cryogenics, and cloning, which are addressed by contemporary science fiction writers to question the foundational category of the human. Abandoning the Enlightenment thought that endorses anthropocentric dualism between human and nonhuman entities, these writers compellingly struggle to ideally express the co-emergence of human and nonhuman species. In re-imagining new contextualisations of “new humanities” (Shaddox 452) that acknowledges the existence and agency of nonhuman/less-than-human beings, Kazuo Ishiguro is among these writers who scrupulously explore the intricate issues encircling human cloning and organ transplantation, leading to the manifestation of hybrid composite beings made up of human and nonhuman bodily parts. As contemporary scholar Gabriele Griffin states: “Ishiguro creates such a critical science fiction with *Never Let Me Go*. Its function is not to actualize science in quasi-mimetic fashion but to comment critically on the history of the present” (653). Rather than focusing on the future repercussions of interspecies cloning or organ transplantation, the novel employs posthuman bodies to explore the biotechnological advancements that entangle bodies in various networks in contemporary biomedical present.

Thus, with *Never Let Me Go* Ishiguro coalesces both copious opportunities and unsettling predicaments that these new practices could bear. As for the opportunities; most importantly, biomedical and biotechnological interventions to the body and mind benefit human subjects in expanding the life span and providing better living standards in tandem with the treatment of many diseases. The human subjects, or “normals” as they are called in the novel, benefit from these biomedical advances. These “normals” comprise the privileged and exclusive group, whose longevity is extended through instrumentally using clones’ organs for their own failing organs. On the other hand, these biotechnological and biomedical interventions cause serious ethical controversies in terms of agency, personhood, naturalness and individual identity. Relevant to this, *Never Let Me Go* explores the ethical implications of organ transplantation and controversy regarding the potential abuse of these practices in biomedicine and genetic engineering. It is at this focal point that, Ishiguro seeks to mirror the nascent fear and anxieties pervasively triggered by posthuman frightening scenarios deployed by some scholars. Such couplings between naturally born beings and artificially created ones, to these scholars’ minds, would

occasion the destruction of the world and humanity. As stated by Karl Shaddox, “with the technology of genetic engineering, splicing, and replication, the notion of human individuality is no longer tenable in any naïve sense of the word” (453). Therefore, the new technologies pertain to the onset of critical posthuman debates about what counts as humans and which attributes make us human. Amidst these biotechnological advancements that create two opposite poles among critics, Ishiguro questions the definition of the human and the boundaries of the body with his focus on human cloning and organ transplantation.

The prospect of human cloning, with its legitimate anxieties as well as hopes for new possibilities, has been a contemporary topic of debate among critics since the cloning of Dolly, the first mammal that was genetically cloned in 1997. After the announcement that Ian Wilmut, a Scottish scientist, and his colleagues at the Roslin Institute successfully cloned sheep named Dolly, Report and Recommendations of the National Bioethics Advisory Commission revealed that “[t]he idea that humans might someday be cloned – created from a single somatic cell without sexual reproduction – moved further away from science fiction and closer to a genuine scientific possibility on February 23, 1997” (1). However, as Steve Garlick points out, “[i]t was not the cloning of a sheep *per se* that raised such a stir, but rather the possibility that this was a technology that could be transferred to human reproduction – thereby generating some form of ‘posthuman’ reproduction” (140). Thus, the birth of Dolly has led to public anxieties about the problematic nature of cloning and reproduction that permeate contemporary fiction, art, media, movies, and scholarship. In other words, the cloning of Dolly spurred many compellingly ethical questions and discussions about human cloning, as it “quickly became a symbol of the transgressive potential of the new genetics in general” (Petersen and Bunton 73). Yet, scholars who tend to advocate human cloning, much prefer to focus on the health benefits of cloning. They believe that positive outcomes of cloning technologies surpass the negative connotations associated with the lack of agency, originality, and naturalness. Cloning, more precisely, reproductive cloning, can create the possibility for infertile couples to have children. On the other hand, those who oppose to human cloning reveal their fears about the possibility of exploitation and commercialisation of body parts, as well as risks of diminution of self. For example,

cloning poses a threat to the natural body, stable identity, human integrity, and equality among beings. The chief argument circles around questions such as, if you have a clone of yourself, then who is more real and natural? Will your clone be and act exactly like you? What is the difference between a clone and a human? Most importantly, as *Never Let Me Go* evokes, deep troubling concern about human cloning is its violation of natural order of reproduction. The possible existence of reproduction outside heterosexual structure has caused outrage among some experts. Among them, a distinguished professor in the field of bioethics and biotechnology George J. Annas states that “[c]loning is replication, not reproduction” (80). Also, Francis Fukuyama, one of the scholars who opposes the idea of cloning, claims that human cloning can change human nature for the worse. Cloning, he contends, as a “highly unnatural form of reproduction” (207) can threaten our sense of “shared humanity” (218).

These anxieties over human cloning with respect to commodification of life and body, mitigation of human identity and dignity, as well as erosion of the natural order of life are reflected in *Never Let Me Go*. From such a perspective, Steve Garlick posits, the novel “can be read as an illustration of the uncanniness of human cloning” (150). Concerning himself with the contemporary public unease about the prospect of human cloning, Ishiguro raises questions about the long-standing notions of identity, originality, stable body, individuality, and human agency. It is in this turbid atmosphere that he imagines a dystopian futuristic British society where the production of human clones for the betterment of a higher class of people has become normalised and naturalised.

In *Never Let Me Go*, cloning illustrates the blurring of clear-cut boundaries between human/nonhuman, natural/unnatural, biological/artificial, and organic/inorganic. As Valorie Hartouni predicates, clones are prominent examples of “shifting boundaries between different bodies, human and technology, organic and inorganic, alive and dead” (112). Since what makes us human is one of the most important questions in *Never Let Me Go*, it presents a clone protagonist and her clone peers at the centre of the story as cloning fosters “a question about identity that assumes and invokes while also signaling a shift in prevailing cultural beliefs about who and what we are” (Hartoni 112). In an interview with *The Guardian* in 2006, Ishiguro explains his particular intention of using

clones to prompt significant questions about what qualifies as a human being: “Having clones as central characters made it easy to allude to some of the oldest questions in literature. “What does it mean to be human?” “What is a soul?” “What is the purpose for which we’ve been created, and should we try to fulfil it?” (Ishiguro “Future”). From Ishiguro’s perspective, as posthuman entities, clones make us question what constitutes a human being, or what does not. Over the course of the narrative in the novel, clones challenge the autonomous understanding of the liberal human subject, which comprises one of the fundamental discussions critical posthumanism engages with.

The novel gives us a clear picture that the sole purpose of raising human clones is to treat them as a resource for nefarious organ harvesting. The state of organ transplantation enables the survival of sick human beings through the consumable organs of clones, but when organs are transplanted to the bodies of “normals,” they are also enhanced, reaching their full capacity. As the novel also resonates with the real contemporary bio-medical practices, surgeons are now able to remove the transplantable organs from the recently deceased and use them to replenish the life of a sick patient whose particular organ is collapsing. In real life, recent medical breakthroughs have increased the success rate of extremely challenging medical procedures like organ transplantation, and have optimised the rate of survival after the transplantation via advanced drugs. Experimental genetic engineering techniques today can reproduce an organ in another body, then transplant this newly constructed organ to the recipient host to replace his/her damaged organ. This complicated organ transplantation process “epitomizes technical genius and medical hubris” (Sharp, *Strange Harvest* 1), and although considered to be a significant “icon of medical accomplishment” (Sharp, *Strange Harvest* 1), it arouses fear and anxiety. As such, since the first successful kidney transplant dating back to the 1950s that was carried out on twin brothers (Lederer ix), organ transplantation has brought about a host of troubling questions and generated debates regarding healing, medicalization, the definition of life and death, and the hybridisation of human bodies, hybrid identities, and embodied self. Inspired by this technology, *Never Let Me Go* demonstrates how the bodies of “normals” are augmented along with the extension of their life span.

In today's contemporary world, the human body is seen as being composed of independent re/usable parts ranging from major organs such as lungs, kidneys, and hearts to tissues, sperm, placentas, blood and plasma. Human bodies constituted by these fractured parts are now perceived to have great exchange value to be traded and instrumentalised. This seems to be valid for clones in the novel as well whose excisable parts, such as lungs, kidneys, and intestines, will be extracted for others. This extraction of spare parts and is described in the novel as "unzipping:"

[T]he idea of things "unzipping" carried over from Tommy's elbow to become a running joke among us about the donations. The idea was that when the time came, you'd be able just to unzip a bit of yourself, a kidney or something would slide out, and you'd hand it over. It wasn't something we found so funny in itself; it was more a way of putting each other off our food. You unzipped your liver, say, and dumped it on someone's plate, that sort of thing. I remember once Gary B., who had this unbelievable appetite, coming back with a third helping of pudding, and virtually the whole table "unzipping" bits of themselves and piling it all over Gary's bowl, while he went on determinedly stuffing himself. (87-8)

However, recent studies reveal the shortage of possible organ donors or suitable organs for the sick patient. As a poignant representative of the contemporary field of biomedicine, *Never Let Me Go* alludes to the scarcity of organs in the contemporary medico-scientific world. Using prostheses or stent for the lost body parts or limbs is a common practice, however, seldom the surgeons can entirely replace the whole organ with a new functioning one. The anxiety over the scarcity of transferrable organs has led many scientists and medical professionals to resort to other feasible alternative forms of organ replacement. For instance, a vast number of different animals have been extensively used by pharmaceutical companies, cosmetic industry, and scientific experiments as test cases. Lately, especially mice, dogs, rabbits, apes, and pigs are genetically modified to manufacture organs for direct use by humans in the practice called xenotransplantation. The practice of xenotransplantation can be described as an animal breeding, especially for their organs to be harvested. The animals' organs are genetically modified for transplantation to the organ failure patients. In the use of animal organs in human bodies to restore their function has a significant influence in breaching the barriers between humans and animals and in helping to meet the demand for organs. The other method used for the compensation of the current organ shortage with organ renewal is stem cell research, in which stem cells from an ill patient are taken and then used to grow a new

organ to be transplanted back into the patient to achieve prolongation of life. Additionally, there are methods such as “repairing damaged organs for reuse as bridges or doing domino-donor operations where the old organs that are taken out of one patient are transplanted into someone else” (Gray, *Cyborg Citizen* 81). Particularly, finding people willing to supply some solid organs such as ovaries, kidneys and bones have become a challenge for the surgeons which has led them to “broker financial arrangements between families and friends” (Lederer xi) to acquire blood, organs or tissues when necessary. Of fundamental importance, to respond to the growing demand for organ transplantation, is regenerative medicine that embodies all methods, including a therapeutic cloning, gene therapy and tissue engineering. The pivotal aim is to “regenerate and synthesize biological tissues and even entire organs in the lab” (Thacker 90). This practice, referred to as “off-the-shelf-organs” is carried out to “envision a future in which the body’s natural capacity to heal itself is radically enhanced through molecular genetics and cellular engineering” (Thacker 90). In light of these organ transplantation methods, as also implied by Kazuo Ishiguro in *Never Let Me Go*, it is worth noting that organ transfer has always been replete with subtle forms of body commodification. The organ transfer, as professor of medical science and bioethics Susan E. Lederer states, points to the fact that “the commodification of the body, its fluids, and parts coexisted alongside a ‘gift exchange’” (x). It is in this context that the novel addresses the demand for possible organs which outweighs the limited number of donors, who are freely consenting to donate their organs by creating clone donors whose bodies are utterly commodified.

Cognizant of these various methods of organ transplantation in our bio-medical world, Kazuo Ishiguro dramatises the use of clones for organ compensation in *Never Let Me Go*. The novel suggests, however, that it is not only transplantation of organs, but also transplantation of humanist values into a healthcare system run by economical interest and consumption. Therefore, it explores the ethical implications of organ transplantation and controversy regarding the potential abuse of these practices in biomedicine and genetic engineering. As biotechnologically engineered posthuman clone donors, they are in-between state of human and nonhuman, organic and inorganic, dead and alive, which makes them both cadavers and patients, As Catherine Waldby reveals, “donor cadavers, immortal cell lines, cryogenically preserved bodies, frozen embryos – all of these

marginal kinds of engineered vitality suggest an infinite deferral of death, a passage from life direct to afterlife” (48). In traditional medical practices, a vast majority of organ transplantation surgeries are carried out using deceased donors who are brain dead but kept on respirators. Brain death criteria, “which figure centrally as determinants for organ transfer . . . are central to the process of depersonalization” (Sharp, *Bodies* 61). The success of organ transplantation highly depends on the brain-dead donors, yet these donors in *Never Let Me Go* are not brain dead but are considered to be devoid of their agency and personhood. The recipient hybrid “normals” become substantially dependent on the workings of clones’ organs. Their lives become entangled with each other creating what Elizabeth Grosz calls transformative “posthuman assemblages” (*Time Travels* 151). She further contends, “the living being and the objects now rendered prosthetic transform each other, and each undergoes a not entirely determinable becoming through their interaction” (*Time Travels* 151). They, in a way, constitute new biotechnological posthuman reconfigurations and assemblages. Through the practice of organ transplantation, corporeal boundaries between other bodies and their organs are deconstructed. In this sense, taken-for-granted boundaries between bodies are breached.

In *Never Let Me Go*, the clones are expected to come to a certain age, before their organs are harvestable until their ultimate “completion.” For this end, they need to be situated in a facility to complete their education and be mature enough to undergo organ transplantation. This politically funded scientific experiment run by a scientist named Morningdale, results in the establishment of Hailsham. Through Kathy H.’s fragmented experiences of her institutionalised childhood, Ishiguro allows the reader to articulate what kind of place Hailsham is. The first impression Hailsham creates when it is introduced is that of an institutional boarding school, but disturbingly with restrictive boundaries and constant medical check-ups. However, with the flow of the enigmatic narration, the reader is made aware that, acting as an organ farm, a storage or a laboratory, more than a school, Hailsham is part of a bigger scientific and social project that has an alleged human/e approach to educate and train these student clones to be as humanlike as possible and “as sensitive and intelligent as any ordinary human being” (239). The objective behind this alleged humanitarian project is to give the clones an opportunity to enjoy a happy and humane upbringing during their stay at Hailsham, while getting ready

for their eternal cause. To put it differently, the very attempt of this school as being the first clone-raising facility is to make a social reform that advocates the idea that if the student clones receive humane treatment, they can act very much like “proper” humans. Therefore, their humanity is contingent upon learning how to love and to forge friendships, mastering how to read, write, and do physical activities. Above all, primary importance is given to making high-quality art and being creative. Recalling the importance of art, Kathy H. says: “A lot of time, how you were regarded at Hailsham, how much you were liked and respected, has to do with how good you were at ‘creating’” (16). As a part of the scientific experiment, cultivation of their artistic creativity and encouragement to produce artwork are highly valued in their educational system. Fully cognizant of the significance of artwork, the clone students gladly strive to display their artistic skills in order to be recognised and appreciated. In relation to this, at the centre of their regular life at Hailsham, there lies an important event called “The Exchange” which is thought to give an idea about the clones’ souls. For each piece of artwork, Kathy H. states, “you put in, you were paid in Exchange Tokens – the guardians decided how many your particular masterpiece merited – and then on the day of the Exchange you went along with your tokens and ‘bought’ the stuff you liked” (16). Through the “Sales” and “Exchanges” of art works the students get a chance to decorate their beds and to collect a valuable token. The shabby and castaway objects, in the “Sales” “become special: a jacket, a watch, a pair of craft scissors never used but kept proudly next to a bed” (41). They later recognise that these objects are second-hand objects cast away like their existence. Reminded by Kathy H.: “There’d be nothing remotely special and we’d spend our token just renewing stuff that was wearing out or broken with more of the same” (38). Still, the clones use these objects “to personalize their environment, and this is also the means by which they challenge subconsciously their assigned status as expendable things” (Sim 88). However, to construct their own identities, they endeavour to obtain more used items for their personal collections, which “only underline the commodified status of their condition” (Carroll 8).

Not only are the clones motivated to create a piece of good work according to the guardians’ (instructor’s) standards, but they are also encouraged to appreciate each other’s work in order to facilitate competition. The students are made to believe that the



best would be selected for display in “The Gallery.” The mysterious visitor, Madame drops by at the school occasionally to pick up the best piece of work for display in “The Gallery,” also referred to as “Madame’s collection,” which is shrouded in profound mystery. The clone students always imagine the great privilege of their artwork being accepted for “The Gallery.” Furthermore, they always assume that artwork is evidence of the quality of work they are capable of creating. Unaware of the artwork’s affinity with the nature of humanity as the marker of individuality and soul, the student clones continue to express their creativity to be appreciated by their educators. Towards the end of the narrative, however, the bitter mystery behind this collection is resolved. Madame informs the students that guardians collect the clones’ artwork not to display them in the collection, “The Gallery,” but to inquire into what they “were like . . . inside” to prove their genial treatment of these mass-produced clones, as a part of the “organ-donation” (272) campaign. This campaign is believed to attest to the world that these clones are bestowed with some faculties and capacities which set them apart from other non-privileged clones and make them close to natural human beings. As Madame expresses the intention of receiving their art: “We took your art away because we thought it would reveal your souls. Or to put it more finely, we did it to prove you had souls at all” (255). To secure the integrity of the “socially progressive experiment” (Gerlach et al 132) and to convince the wider population that these clones have souls, Miss Emily and Madame use art to verify that these students are raised in a humane environment by uncovering the essential elements in their inner selves to the rest of the world. They believe they can change the public’s perception about viewing them as nonhumans. This novel approach to education constitutes a challenge to

the entire way the donations programme was being run. Most importantly, we demonstrated to the world that if students were reared in humane, cultivated environments, it was possible for them to grow to be as sensitive and intelligent as any ordinary human being. Before that, all clones – or students, as we preferred to call you – existed only to supply medical science. In the early days, after the war, that’s largely all you were to most people. Shadowy objects in test tubes. (256)

Noticing their artistic skill, Madame excitedly utters: “Look at this art! How dare you claim these children are anything less than fully human?” (262). Argued by Wai-chew Sim, Kazuo Ishiguro “posits the ability to create and appreciate art as the heart of what defines human-ness” (89). However, when the clones begin to show humanness it causes

a definite unrest and panic in society. The donor programme continued to function just because humans envisaged that the clones would not show authentic creativity and real love. The fact that they have souls and capacity to love diminishes the established separation between human and clones. The possible erosion between natural human beings and artificially engineered clones jeopardises human exceptionality and the binaries between them. Thus, when the clones' humanness is noticed, it makes a jarring effect on the normals' humanity. Kata Gyuris, relatedly remarks that "[a]s soon as the improvement of scientific methods endangers the ontological position of humanity, they cease to regard the clones created specifically for the purpose of helping them as living and feeling creatures" (410). One of the guardians, Miss Emily explains,

after the climate changed, we had no chance. The world didn't want to be reminded how the donation programme really worked. They didn't want to think about you students, or about the conditions you were brought up in. In other words, my dears, they wanted you back in the shadows. (242)

As long as they are considered to be nonhuman, they are fine; however, when they become enhanced and improved beings it was disturbing for people. By calling it a scandal, Madame clarifies the hidden programme:

It concerned a scientist called James Morningdale, quite talented in his way. He carried on his work in a remote part of Scotland, where I suppose he thought he'd attract less attention. What he wanted was to offer people the possibility of having children with enhanced characteristics. Superior intelligence, superior athleticism, that sort of thing. Of course, there'd been others with similar ambitions, but this Morningdale fellow, he'd taken his research much further than anyone before him, far beyond legal boundaries. Well, he was discovered, they put an end to his work and that seemed to be that . . . It reminded people, reminded them of a fear they'd always had. It's one thing to create students, such as yourselves, for the donation programme. But, a generation of created children who would take their place in society? Children demonstrably superior to the rest of us? Oh no. That frightened people. They recoiled from that. (264)

By the time the three protagonists of the novel, Kath H., Tommy and Ruth learn this truth, the experiment has already failed. When the primary difference between humans and clones is breached with their artistic originality, the project collapses as the interest behind this project is only to procure organs from their cloned bodies not to prompt their humanness. As the society is clear about establishing boundaries between the donor clones and human recipients, and clutching onto the humanist ideology which sets

humans apart from each other, clones will never be considered human enough to be granted with the same rights as non-cloned human recipients. On the contrary, they will always remain as “shadowy objects in test tubes” (239). Humans’ anxiety towards dismantling the barriers between biologically born and artificially created is evident as it showcases that they seek to justify their exceptionality over these clones.

Thus, it is conceivable that one of the means to justify human exceptionality is through a work of art that supposedly distinguishes real human beings from unreal ones in the sense that it represents a marker of humanity and unique individual creativity. While the other students seem to be producing art that conforms to the guardians’ expectations, Tommy creates his art different from what the guardians teach. While his picture looks like a wheel, in reality it turns out to be a kind of bird or other animal. Kathy comments on his art: “What I was looking at was so different from anything the guardians had taught us to do at Hailsham, I didn’t know how to judge it” (185). That indicates Tommy has an interesting conceptualisation of individual art, which consists of interspersions of animals with objects. As Kathy H. puts it:

I was taken back at how densely detailed each one was. In fact, it took a moment to see they were animals at all. The first impression was like one you’d get if you took the back off a radio set: tiny canals, weaving tendons, miniature screws and wheels were all drawn with obsessive precision, and only when you held the page away could you see it was some kind of armadillo, say, or a bird . . . For all their busy, metallic features, there was something sweet, even vulnerable about each of them. (171)

His supposed inability to fulfil the aesthetic requirement to create a beautiful art conforming to the guardian’s understanding of what art should be has served the purpose of making his body sacrifice well deserved. As Shameem Black in “Ishiguro’s Inhuman Aesthetics” writes, “if artistic capability reveals humanity, then a lack of artistic capability provides a license for exploitation” (795). So, the art works “keep the students unaware of their own inhumanity – it masks their own mechanical condition and serves to prepare them for lives of exploitation” (Black 790). It is in this sense that cruelty is inherent in their so-called humane treatment because the art bears testament of their life value and whether they deserve to exist or not.

The initial purpose of this allegedly humanist education they receive turns out to be formidably dehumanising. Even when the experiment manages to create clones who exhibit salient human traits and show emotions, they are still not recognised as fully human by public. Kathy H. realises why Madame is scared of them because she sees them as nonhuman: “she saw and decided in a second what we were, because you could see her stiffen – as if a pair of large spiders were set to crawl towards her” (248). Since they are not considered to be real humans, “normals” do not feel any moral obligation or have any ethical concerns about harvesting their organs, which is why when the clones die after multiple donations, they will not have been murdered; instead, they will have fulfilled the function of their pre-destined lives. In the depiction of the “systematic exploitation of the clones” (Black 785), clones “prefigure a futuristic world of genetic technology [and] reality of growing economic imbalances” (Black 796). Ishiguro shares this bioethical concern about “making new humans . . . without Human Rights” (Black 796) through the abuse of science and technology. Additionally, he ardently shows concern for the exploitation of bodies in a global scale as a consequence of accelerating advancements in genetic engineering.

By means of fabricating a society that is predominantly indifferent to the abuse of human clones for their self-interests, Ishiguro demonstrates how human beings consider themselves distinct and superior to nonhuman species because of their biological personhood. The clones are also kept separated from the rest of society so that they do not upset the “normal” people. This is why they are kept within the fences of that secluded place, because “[b]iomedicine privileges knowledge concerned with the body’s mechanics, often to the exclusion of both the inner workings of the self, or emotions, and the individual’s place within larger social and ecological milieus” (Sharp, *Strange Harvest* 43). It is located in the “lost corner” (65) of England, a dystopian landscape, and effectively escalates the clones’ social and cultural marginalisation from the rest of the world. Martin Puchner argues that “while the school’s humanities education is supposed to produce or shape humans, these students are simultaneously made to recognise that they themselves are excluded from humanity” (38). What seems to disturb “normals” is not the fact that these posthuman bodies are conceived for medical science, but the fact that they are brought into existence to discover their humanity. As it is laid out in the

novel, people are aware of their existence and abbreviated lives as far as the benefits they can provide, however they do not want to be involved with what is happening in their lives:

However uncomfortable people were about your existence, their overwhelming concern was that their own children, their spouses, their parents, their friends, did not die from cancer, motor neuron disease, heart disease. So for a long time you were kept in the shadows, and people did their best not to think about you. And if they did, they tried to convince themselves you weren't really like us. That you were less than human, so it didn't matter. (240)

Unwilling to consider their humanity, the society merely concentrates on harvesting them. This is how the system is discretely run and the reason why this system works is, as Rebecca Walkowitz proclaims,

the humans see the clones as non-individual organisms, like radios or spiders, and because the humans fail to see themselves, too, as radios and spiders. The failure to see is a failure to compare: the humans think that individuality is the highest value, and they convince themselves that they are 'not like' the clones – 'not unlike' because as a group they possess a quality that they believe the clones do not have (individuality) and 'not' like, because they believe they are incomparable. (225)

They are formidably compelled to live like outcasts but pass as "normals" in a world dominated by "normals." By being exposed to constant revulsion and disgust, the clones are made to be aware of their difference from their guardians, who are authoritarian instructors at Hailsham. Back in time Kathy H. recalls how they feel different before knowing what is awaiting them:

Maybe from as early as when you're five or six, there's been a whisper going on at the back of your head, saying: "One day, maybe not so long from now, you'll get to know how it feels." So you're waiting, even if you don't quite know it, waiting for the moment when you realize that you really are different to them; that there are people out there, like Madame, who don't hate you or wish you any harm, but who nevertheless shudder at the very thought of you – of how you were brought into this world and why – and who dread the idea of your hand brushing against theirs. The first time you glimpse yourself through the eyes of a person like that, it's a cold moment. It's like walking past a mirror you've walked past every day of your life, and suddenly it shows you something else, something troubling and strange. (33)

Kathy H. overtly reveals her estrangement from those considered to be "normals." Later, they overhear that their difference is related to the donations they are waiting for, however

they have no idea of how they are related to as Kathy H. says, “we were different from our guardians, and also from the normal people outside, we perhaps even knew that a long way down the line there were donations waiting for us. But we didn’t really know what that meant” (69). One day, Miss Lucy hears the clone students’ talking about their future wishes to become actors/actresses or to go to America. The guardians remain very evasive and indirect about the truth of these clones’ origin and their destined future. The fundamental aim for partial revelation of truth, it appears, is to make them more dedicated to fulfil their objective of sparing their vital organs. Succumbing to the feeling of pity and empathy for these clones, she confesses the shocking truth about the experiment they perform in Hailsham and their shortened lives as a result:

If no one else will talk to you . . . then I will. The problem, as I see it, is that you’ve been told and not told. You’ve been told, but none of you really understand and I dare say, some people are quite happy to leave it that way. But I’m not. If you’re going to have decent lives, then you’ve got to know and know properly. None of you will go to America, none of you will be working in supermarkets as I heard some of you planning the other day. Your lives are set out for you. You’ll become adults, then before you’re old, before you’re even middle-aged, you’ll start to donate your vital organs. That’s what each of you was created to do...you were brought into this world for a purpose, and your futures, all of them, have been decided . . . you’ll be leaving Hailsham before long, and it’s not so far off, the day you’ll be preparing for your first donations. You need to remember that. If you’re to have decent lives, you have to know who you are and what lies ahead of you, every one of you. (79-80)

It is obvious that this speech is the most troubling part of the novel, where the clones face their pre-destined lives. Their realisation that they are genetic copies of humans appears to have a ghastly effect on the student clones. It is at this moment they perceive that they will not have a life of their own, they will not be able to have what they desire in their lives. By the time they learn this trenchant truth about their lives, they “have already established themselves as ordinary people. They laugh, cry, squabble, reconcile, grow older and, ultimately, they fall in love. While Ishiguro’s tale has an unmistakable air of science fiction to it, it is difficult for the reader to view its protagonists as anything other than remarkably *normal*” (Vorhaus 99). However, through this stark revelation, they find out they are not considered “normals” but clones and they also attain self-perception that one day they will have to donate each of their organs until they become “complete” in the language of institution, meaning eventual death after several donations. Since their organs are incorporated into impaired human bodies, constituting a posthuman entanglement

with them, these clones function as artificial supplements to the “normals.” They particularly enable “real” humans to continue functioning in society while they are reduced to mere objects or obedient subjects programmed or conditioned to serve the “normals.”

How their posthuman bodies are turned into commodities can be explained by Michél Foucault’s term, “bio-power,” which is a crucial element in the subjugation and control of their consumable bodies. This is also observed by Bruce Jennings, who predicates that “the novel is concerned with the exercise of bio-power in the face of aging bodies and failing organs” (17). In his first volume of *The History of Sexuality* (1986), Foucault outlines the notion of bio-power that frames human life – reproduction, healthcare, aging, health, disease, abortion, sexuality and death with power and governance: “Bio-power brought life and its mechanisms into the realm of explicit calculations and made knowledge/power an agent of transformation of human life . . . Modern man is an animal whose politics places his existence in question” (143). In addition, bio-power “appears when it has become technologically and politically possible for man not only to manage life but to make it proliferate, to create living matter, to build the monster” (Foucault, “The Society” 254). In this sense, the world of *Never Let Me Go* represents the bio-political posthuman world, where bodies and technology intermingle in power relations. The interlace of bodies with biotechnologies thus engenders a new phase of bio-politics in the posthuman world. Michél Foucault’s account of “political technologies of the body,” (Smart 64) in pointing to the disciplinary bio-power and discourses that aim to make the bodies docile and regulated, in many respects, provides a perceptual framework in posthuman underpinnings of the body. In other words, he stresses the fact that under “bio-power” human bodies and their potentials, capabilities, and desires are under surveillance and control. It is this premise that Foucault correlates with today’s technologies, specific technical tools and aids, with the circulation of bio-power, creating a particular kind of biotechnological subjectivity under social and governmental control.

This system of thought has affinities with the treatment of clones in *Never Let Me Go*. The perpetuation of bio-power creates binary division between the new posthuman clone subjects under governmental control and “real” humans, whose life-sustaining organs are

collapsing, but could be replaced with the clones' organs at the expense of their death. Bio-power is "fundamentally dependent on the domination, exploitation, expropriation and, in some cases, elimination of the vital existence of some or all subjects over whom it is exercised, . . . a form of power which ultimately rests on the power of some to threaten the death of others" (Rabinow and Rose 198). Within this light, the effect of bio-power in consuming the bodies and body parts of supposedly nonhuman clones for the vitality of naturally born human beings is prevalent in *Never Let Me Go*. For Foucault, the body discourses inseparably entangle with the circulating power and knowledge. He shows "how the deployments of power are directly connected to the body – to bodies, functions, physiological processes, sensations, and pleasures; far from the body having to be effaced, what is needed is to make it visible through an analysis in which the biological and the historical are not consecutive to one another" (*The History I*: 151). So, the bio-power circulating in the dehumanising world of *Never Let Me Go* produces instrumental subject clones, whose bodies along with the functions are treated as raw biological resources for a transplant use.

As a result, what emerges is a new form of "biosubjects." In Neil Gerlach, Sheryl Hamilton, Rebecca Sullivan and Priscilla Walton's explanation,

[b]iosubjects can no longer draw solace from an immutable, easily recognized, bounded body . . . It is constituted in a web of biotechnologically influenced social practice. Yet the biosubjects . . . are not exclusively human . . . they are simultaneously objects and subjects of institutional operations, and they mark both enhanced and limited forms of social agency [and] call into the question of human-ness. (22)

As biosubjects, the clones in the novel are only considered in terms of their instrumental "biovalue," to use Catherine Waldby's term. Waldby argues that "biovalue specifies ways in which technologies can intensify and multiply force and forms of vitality by ordering it as an economy, a calculable and hierarchical system of value" (33). She further argues that "biovalue is generated whenever living entities can be instrumentalized" (33) and manipulated. In particular, the last passage in the novel indicates the biovalue of the clones' bodies that can be regarded as "expendable waste" (Groes 25), associated with "modern conspicuous consumption and the throwaway culture" (Sim 78). Kathy H., after



the death of her friends, waiting for her own donation, stares at the rubbish and plastics hitting upon the shore:

All along the fence, especially along the lower lie of wire, all sorts of rubbish had caught and tangled. It was like the debris you get on a sea-shore . . . I was thinking about the rubbish, the flapping plastic in the branches, the shore-line of odd stuff caught along the fencing and I half-closed my eyes and imagined this was the spot where everything I'd ever lost since my childhood had washed upon and if I waited long enough, a tiny figure could appear on the horizon across the field and gradually get larger until I'd see it was Tommy . . . I just waited a bit, then turned back to the car, to drive off to wherever it was I was supposed to be. (288)

Associating their discarded and exploited lives with the rubbish and plastics that hit on the shore, Kathy H. imagines her lost childhood. She imagines Tommy alive, “he’d wave, maybe even call” It is “their dead, used-up and ‘unzipped’ bodies that Kathy H. sees flapping about in the wind, caught in the trees; the plastic forms are their empty skins, carrier bags from which the organs have been removed” (Groes 223). In a similar way, Ruth, in her dream about Hailsham associates herself with rubbish and empty cartons. She tells her dream: “I was looking out of the window and everything outside was flooded. Just like a giant lake. And I could see rubbish floating by under my window, empty drinks cartons, everything. But there wasn’t any sense of panic or anything like that. It was nice and tranquil” (225). Thus, these posthuman clones are all associated with disposable things that are easily tossed away like plastics, empty boxes and rubbish. As Rosi Braidotti puts it, they “have been turned into tradable disposable bodies, inscribed in a global market of post-anthropocentric exploitation” (*The Posthuman* 70). Their living bodies are merely objects for its instrumental value with consumable organs. Realising his instrumental value for the sake of saving regular humans, before he is complete, Tommy explains how his body will still continue to be commodified even after his completion: “You’ll have heard the same talk. How, maybe, after the fourth donation, even if you’re technically completed, you’re still unconscious in some sort of way; how you find there are more donations, plenty of them, on the other side of that line” (279). However, even their sacrificial deaths through the removal of their organs do not bear any meaning to their society because there is always a “barrier against seeing [them] properly human” (240). Referring to the ubiquity of bio-power inscribed in all institutions functioning in society, Foucault states that bio-power categorises people in terms of who

must live and who must die. This, as Braidotti notes, is a “bio-political issue: which species are allowed to survive and which to die?” (*The Posthuman* 130). This form of bio-power is closely related to bio-politics which is to “foster life or disallow it to the point of death” (Foucault, *The History I*: 138). In this sense, clones must die so that “normals” can prevail. Even before their bodies are used and organs are cultivated, they have to take good care of their physical health.

Bio-power manifests itself in controlling the inner functioning of their bodies as well. The posthuman clones are subjected to medical examination every week to make sure they remain fit and healthy for their purpose. Through some advanced bio-technological tests such as brain fingerprinting, body heat detection, hand recognition or DNA testing, bodies are monitored and tested. Making them conform to this strict health standard and medical examination can also be correlated with controlling mechanism. As Black poignantly puts it, “the novel resonates with twentieth-century legacies of modern totalitarian repression” (789). In tandem with this argument, the clones are taught about the historical facts regarding World War II and Nazi camps during their classes. Additionally, Kathy H. feels that they are incessantly eavesdropped upon. Outside the classroom, the senior class, in alliance with the surveillance system, monitors, inspects and controls the younger students and make sure that younger ones do not plan on escaping. The imprisonment of the clones into the strict borders of Hailsham is strengthened and stabilised by means of circulating myths among students, too. One pervading myth is that an escape attempt to attain freedom will be severely punished and those students will be kept away from Hailsham, never permitted to be students again. Hearing it happened to one of the students, Kathy H. recounts:

She'd been a Hailsham student until one day she'd climbed over a fence just to see what it was like outside. This was a long time before us, when the guardians were much stricter, cruel even, and when she tried to get back in, she wasn't allowed. She kept hanging around outside the fences, pleading to be let back in, but no one let her. Eventually, she'd gone off somewhere out there, something had happened and she'd died. (50)

To put the students under constant gaze, the guardians spread terrifying rumours or create myths among them in a subtle way; that is, they will be killed if they try to cross the fence. The other rumour that passes on to the students involves abominable details. There was a

boy once, who after a fight with his friends was believed to “run off beyond the Hailsham boundaries” (50), but later found dead with his hands and feet chopped off. Never wholly confirmed by guardians, these rumours perpetuate constant fear of going beyond the fences among the student clones. The notable internalisation of bio-power, thus, can be overtly observed in their docility and conformity with the functioning of the system.

Because they are powerless to change their destiny framed for them, the clones are forced to accept their dehumanisation. They are made to believe that donation is the only option for them. Instead of thinking of rebelling or escaping, they choose to be part of this system and become better humanlike entities. This also resonates with the sovereignty of bio-power in “the depths of the consciousness and bodies of the population” (Hardt and Negri 217). What’s more, any form of rebellion or bawl is instantly met with ridicule by their friends. In this respect, they have come to terms with their own repressed fate and imminent painful death, as for instance, can be deduced from Ruth’s remark after her first donation: “I was pretty much ready when I became a donor . . . It felt right. After all, it’s what we’re supposed to be doing, isn’t it?” (227). Rather than fantasising about another life, they struggle to pursue a sealed fate for them. This bolsters an argument that the way these clones cope with their own reality is via obstructing the bitter truth of cloning and sticking to their determined duty. The reason why they adopt euphemisms abundantly instead of a direct utterance can be explained by their escapist stance towards their actuality. To name a few euphemistic usages, Kathy H. vaguely describes the situation of one of the donors, who is on the verge of dying: “He must have known he wasn’t going to make it . . . He knew he was close to completing” (5). Although their diminished lives are replete with images of death, not even once is the use of death/dying/killing mentioned. On the contrary, as the Kathy H’s utterance above ably shows, “he wasn’t going to make it,” or in another scene, she says “I lost Tommy” (286) or “Ruth has gone” (76). Using constructed euphemisms, such as “umbrella sex” to allude to gay sex, is also common among the student clones. In a similar vein, a striking amount of neologisms are used to create an estrangement, such as “carer,” “guardian,” “deferral,” “completion,” “donors,” and “possible.” From this perspective, as Gabriele Griffin states, feeling familiarised “readers stung into the alienation effect provoked by [this] uncommon use of common words” (652). It seems that through the use of euphemisms and neologisms

Ishiguro intends to create a literary effect as well as an alienation effect to reinforce the emotional distance and confusion resulting from the practice of organ transplantation. This is why sufficient knowledge about how these clones come to accept their own confined lives, and the extent of their physical and mental suffering after the surgeries, is not provided. Rather, what is emphasised is their enthusiasm to live and their struggle to enjoy their truncated lives without ever considering to protest or revolt.

Basically, they have “internally normalized” (McDonald 78) their predestined life and have chosen to remain inert and passive. There is a clash between their “prenaturally calm resignation to their physical fate and their concurrent desire to live” (Groes 228). The fact that Kathy H. does not contest their purpose in life makes her “complicit in the atrocities committed” (Cooper 106) by the society in which she is raised. It is disturbing because these atrocities committed are not “named or identified” (107). The novel suggests that even under “repressive, autonomy-denying, social systems” (Cooper 106), every individual has an ethical responsibility to “stand against inhumanity by practicing compassion” (Cooper 106). It is undeniably apparent that their bodies are made docile by “unspoken rules” within the school. Kathy H. retrospectively makes a critique of their part in their docility and subjugation to the system. She reflects that there were rules “we imposed on ourselves, as much as anything the guardians had decided” (32). It is only showing empathy, ambition, compassion, love, desire, and passion that they undermine their system, which is founded on the assertion that they are devoid of humanness. “[T]he mechanistic and materialistic determinism of the scientific universe which reduces the human to the body and its parts” (228) is however challenged by the friendship, intimacy, love and basic human experiences they undergo.

Although trapped in a delivery system which diminishes clones’ autonomy, identity and agency, they are not different from the “normals” in terms of showing emotions, personal relationships, love, agency, creativity, and humanness. One of the most striking scenes which shatters the boundary between the clones and the humans occurs when Kathy H. holds the pillow up to her chest like a baby as she dances. This image of Kathy H. holding a pillow like the baby that she will never be able to have while she dances to Judy Bridgewater’s song “Never Let Me Go” distinctly indicates how she craves for human

bonding. The song, “Never Let Me Go” to which Kathy fantasises, is about a woman who is infertile, as a consequence she is told she can’t have a baby. Notwithstanding, “[t]hen there’s a sort of miracle and she has a baby, and she holds this baby very close to her and walks around singing: ‘Baby, never let me go’” (70). Such a dramatic image conveys “the fragility of the human self” (Groes 24), the saddening inability to reproduce. While Kathy H. dreams of a world of human connection and intimacy, displaying her humanity overtly, Madame, the mysterious woman, seeing her, imagines more of a cruel scientific world:

a new world is coming rapidly. More scientific, efficient, yes. More cures for the old sicknesses. Very good. But a harsh cruel world. And I saw a little girl, her eyes tightly closed, holding to her breast the old kind world, one that she knew in her heart could not remain, and she was holding it and pleading, never to let her go. (248)

This world Madame conceives is an interest-driven world wherein prolongation of lifespan through the use/abuse of clones becomes justifiable. In opposition to Kathy H.’s vision, Madame imagines Kathy “holding to her breast the old kind world” (272). She holds on to the new generation, symbolised by the baby, where friendship and love surpass materialistic interests.

As it can be witnessed the omnipresent effect of “bio-power” is an indispensable force in the lives of the characters in various processes, including their bodies, reproduction, and sex life. In order to keep their body mechanics working smoothly and efficiently, they should strictly abstain from smoking, unhealthy food, any sexual activity that could result in pregnancy, or anything that can possibly harm their bodies as they are told by one of the guardians: “[Y]ou’re . . . special. So keeping yourselves well, keeping yourselves very healthy inside, that’s much more important for each of you than it is for me” (68). So, their exceptionality is over-emphasised in the sense that Hailsham is the first cutting-edge clone raising facility run with an allegedly humane approach and humanistic education “in cultivated environment” (239) to make them more “civilised.” In contrast, other non-privileged student clones around the country are reared in “deplorable conditions” (261) where they are harshly and cruelly treated in ways that Hailsham clones could hardly articulate. In opposition, Hailsham students are granted a happy childhood and educated in sports, arts and literature. This hints at the ways that even between clones there is a

division and while Hailsham students are considered privileged, other clones in “vast government homes” (242) are among the inferior groups.

Another effect of bio-power observed is with regards to sex. Reproductive sex is prohibited although they are encouraged to experience their sexual self-expression. As a part of their sex education, they are supposed to have sex within the taboos set for them, and this sex is expected to be heteronormative as, in the novel, it is emphasised to be the natural, and the legitimate one. Heterosexuality is a proper and effective tool to normalise the individuals within the social control, so they identify themselves as straight. This social constraint exerted on their bodies declared by Kathy H: “At Hailsham we definitely weren’t at all kind towards any signs of gay stuff” (94). In their disciplinary classes, they are instructed that sex is purposeful and worthy if it ends in conception and reproduction, which they will never experience in their lives. Miss Emily

began telling us how we had to be careful about *who* we had sex with. Not just because of the diseases but because, she said, “sex affects emotions in ways you’d never expect.” We had to be extremely careful about having sex in the outside world, especially with people who weren’t students, because out sex meant all sorts of things. Out there people were even fighting and killing each other over who had sex with whom. And the reason it meant so much – so much more than, say, dancing or table-tennis – was because the people out there were different from us students: they could have babies from sex. That was important to them, this question of who did it with whom. (82)

So, they are taught to experience sex to feel more attached to the outside world and to become part of it. However, they should be careful with whom they have sex, because as the “products of technologies of assisted reproduction,” (Carroll 60) they are genetically moulded to be unable to reproduce. Kathy H. mentions, “even though, as we knew, it was completely impossible for any of us to have babies, out there, we had to behave like them. We had to respect the rules and treat sex as something pretty special” (76). Their lack of reproductive function renders them unnatural and nonhuman. As contemporary scholar on feminist and queer theoretical perspectives Rachel Carroll notes, “the discursive construction of the human clone as ‘unnatural’ and ‘inhuman’ is implicated in the imperatives of heteronormativity” (Carroll 60). The clones can pass as “normals” in the outer world in terms of appearance, but their “non-reproductive nature” (Garlick 151) is what distinguishes them from “normals.” Garlick notes that “the cloned children have an

intuitive understanding that it is through the ‘proper’ coupling of sex and desire within a heterosexual relationship that one may gain access to the human” (151).

As graduates of Hailsham, the clones move to The Cottages where they can enjoy their independence and freedom as an adult without the supervision of their guardians for a couple of years. In The Cottages, they are given a chance to thrust into the world of “normals” they only know from videos on television, porn magazines, advertisements, or behind the window glasses, and pretend to be like them by emulating their gestures. At any rate, their price to enter a world of normalcy is to lose an organ, one at a time or become a “carer” who, before becoming “donors,” are assigned to take care of “donors” who are in the phase of recovering from their transplantation and waiting for another. As a consequence of this, they are faced with two appraisals in the process of being gradually wasted; either to start donating their organs soon or register to be a “carer” and serve other clones for a while. Kathy H. chooses to become a “carer” by which she can enjoy her preferred donors from Hailsham: “Carers aren’t machines . . . so when you get a chance to choose, of course you choose your own kind. That’s natural. There’s no way I could have gone on for as long as I have if I’d stopped feeling for my donors every step of the way” (4). What Kathy H. believes is that her job is very respectable and dignified, and she finds solace in the demands of her work. Through caring for and nursing the donors, she can position herself in the wider community, and form personal and social relationships. Intermittently, she displays pride in choosing to become a carer and she thinks she is considerably good at her job. In this dehumanising clone-dependent society, the clones opt to “internalize its pernicious attitudes” because the “smallest choices may become radical expressions of humanity” (Groes 269).

During their stay in The Cottages some other clones help them be closely in touch with their own humanity. In particular, the trip to Norfolk while they are staying in The Cottages is of great importance to the course of the events and meaning of their life. Within their restricted barriers at Hailsham, their encounter with regular human beings is prevented. Strikingly, in contrast to their barred existence in Hailsham, the clones can now travel to Norfolk where they supposedly have a chance to mix with the human community and find their “possibles” through which they long to overcome their identity

crisis. In an attempt to “comprehend the significance of their circumcised personhood” (Black 786), they have a relentless desire to have a sense of belonging, as “paternity is unavoidable model of ownership” (Wills 15). A crucial part of any search for a stable and established identity is via knowing one’s parents and forming a sort of bond with them. Therefore, consumed by the obsessed desire to find their genetic origin, they embark on a journey to search for their “possibles” upon whom they are modelled and believe might be their original parents. The relentless search for their biological origin or the model from which they are cloned can be considered to be part of Ishiguro’s aim to make these clones as humanlike as possible. Their search for their parent corresponds closely with their search for an identity, to attain self-discovery and self-knowledge. Finding their origin should definitely give them a glimpse of revelation about why they are, how they are: “when you saw a person you were copied from, you’d get *some* insight into who you were deep down, and maybe too, you’d see something of what you held in store” (140). An older couple tells Ruth that they have seen someone resembling Ruth in an office downtown. Excited at the opportunity to meet her model she was cloned from, she drives to the town with her friends. When Ruth cannot not find the possible from which she was cloned, being crushed and shattered, she agitatedly outrages:

We all know it. We’re modelled from *trash*. Junkies, prostitutes, winos, tramps. Convicts, maybe, just so long as they aren’t psychos. That’s what we come from. We all know it, so why don’t we say it? If you want to look for possibles, if you want to do it properly, then you look in the gutter. You look in the rubbish bins. Look down the toilet, that’s where you’ll find where we all came from. (164)

So, Ruth speculates that they are modelled from socially marginalised or socially condemned lower-class citizens. The possibility of being cloned from low class people reveals her diminished sense of self-confidence. When they visit an art gallery in Norfolk, the owner, not knowing they are clones, starts to discuss art with them. Their apparent in-betweenness, between being human or nonhuman, is emphasised by Ruth when she declares that they are treated equally because they do not look different from the “normals,” so they can live unnoticed. Ruth, feeling estranged furiously asks: “Do you think she’d have talked to us like that if she’d known what we really were? What do you think she’d have said if we’d asked her? ‘Excuse me, but do you think your friend was ever a clone model?’ She’d have thrown us out” (164). Thus, deep down they feel isolated



and different from the rest of the world. They may look the same, as their in-betweenness crosses the barriers set between them and natural humans, but Ruth now vividly remembers that Madame was afraid of them: “I used to think she was just snooty, but it’s something else. I’m sure of it now. Madame’s scared of us. But she was afraid of us in the same way someone might be afraid of spiders. We hadn’t been ready for that. It never occurred to us to wonder how *we* would feel, being seen like that, being the spiders” (33). Her outcry and her falling into despair can easily be rendered as human feeling, which indicates that they are not devoid of human qualities.

Concurrently, in her quest for an identity on which to firmly hold, Kathy H., desperately attempts to discover her origin, which appears to be another sign of humanity. Overwhelmed by sexual interest, she flips over the pages of the porn magazine, intending to disclose the reason for her sexual impulse, which she can only associate with her origin’s interest. Thus, grappling with her state of sexual confusion, she reflects that her expressive sexual urge must stem from her origin’s deep-rooted interest in sex. Kathy H. confesses that

[i]t’s just sometimes, every now and again, I get these strong feelings when I want to have sex . . . I don’t know what it is, and afterwards, when it’s passed over, it’s just scary. That’s why I started thinking, well, it has to come from somewhere. It must be to do with the way I am . . . So I thought if I find her picture, in one of those magazines, it’ll at least explain it. I wouldn’t want to go and find her or anything. It would just, you know, kind of explain why I am the way I am. (179)

To prove and justify their fundamental humanness, clones long for an identification with their originals because as Black underlies, “[t]he act identifying with someone else’s experience is deeply tied to our understanding of what it means to be human” (786). Kathy H.’s sexual urge makes her human, most probably her origin has the same urge, yet being denied reproductive function dehumanises her: “It simultaneously denies her entry into what she perceives as the world of the fully human” (Garlick 151). As a result of the deprivation of biological identity and provenance, these clones have constructed social and collective identity by way of their shared childhood experiences and memories. As Myra Seaman remarks: “Ishiguro makes clear that their identity is no different from that of the humans who created them” (265). They are every bit of human like their creators, who similarly want to cling onto their life.

The hope of getting “deferral” – the possibility of postponing their donations for a couple of years – if they can prove they are “really, properly in love,” gains importance towards the end of the narrative. Because love, desire, and affection are human characteristics, showing them allegedly will enable them to enter into the world of normal humans, and fulfil their love for a short time span until their ultimate completion. According to this rumour, the possibility of delaying organ harvest is an alleged privilege given only to elite Hailsham students, whose quality of artwork will show whether they should be granted with this opportunity. Back in time, while the artwork of Kathy H. was highly appreciated, Tommy could not produce art that befits to the norm of beauty in art. In other words, while most of the students seek appraisal and admiration from their peers and guardians, Tommy wants to go with the flow of his instincts and inspiration. Unlike other students, Tommy produces extraordinary art in which he fuses everyday objects with animals. However, the rumour about deferral makes them believe that the only proper means to evidence Kathy H. and he are deeply in love with each other is to through the demonstration of valued art. In an endeavour to create beautiful imagery to have the opportunity of living their love for some time through deferment, he passionately draws various images. Deep down, they feel that the proof of their perpetual love towards one another can set as a response to the cold and cruel world. For this goal in mind, they decide to pay a visit to Madame to show they are truly in love and hope to get a deferral. Madame, upon Tommy and Kathy H.’s visit, informs them that the very purpose of the gathering artwork is not to demonstrate the world their capability to love but whether they have souls at all. Learning this, in an innocent manner, Kathy H. asks: “Why did you have to prove a thing like that? Did someone think we didn’t have souls?” (201). They realise that the rumour about the possibility of deferment on their donations proves to be wrong. Miss Emily unravels the falsity in this rumour as such: “It was never true. Even before the Morningdale scandal, even back when Hailsham was considered a shining beacon, an example of how we might move to a more humane and better way of doing things, even then, it wasn’t true. It’s best to be clear about this. A wishful rumour. That’s all it ever was” (258-59).

Even though the idea of getting deferral is far-fetched, despite meekly accepting their destined fate to be used for medical benefits to save “ordinary” people from dying, within

their pre-determined and restricted futures, they still try to change their fate, rather than considering escaping, revolting or resisting against their confinement. James Butcher underlines the fact that just because clones accept their sacrificial death that does not mean that they are “mindless automatons,” (1299) if there is a chance, they will strive to get an extension on their lives. Despite knowing that their sole mission is to give life others, until the last moment, they never give up on love or living.

The novel finishes with Kathy H.’s final remarks before she starts her donations. Through Kathy H.’s personal narration, the reader is made to realise the truncated lives of her and her clone friends, Ruth and Tommy in their struggle to display their humanness to the cruel world. Overall, their capability to love, full competency in artistic authenticity, emotional depth, frustration as well as anger typify their humanness, which cause them to be hardly distinguished from naturally born humans.

In conclusion, the discursive framework of critical posthumanism functions as a methodological lens in exploring Kazuo Ishiguro’s *Never Let Me Go*. The critical posthuman theory in the novel functions in multiple layers. The first and foremost undertaking is that the novel evokes a posthuman world, where the recent biotechnological developments enable the enhancement of human capabilities and extend longevity. To this end, human clones are manufactured and reared so that their vital organs are harvested to furnish body parts for “original” humans called “possibles.” In Ishiguro’s futuristic posthuman landscape, despite their display of humanness, the clones are not recognised as fully human. This is why, the mass production of human clones in the service of “normals” seems to be justified and socially acceptable. After all, they are believed to be divorced of agency, free-will, and most importantly, fertility, which justify the moral and social acceptability of the donation program in the eyes of the public. By donating their organs, the clones fulfil their function of existence. For this reason, “normals” do not feel morally and ethically guilty of seeing them as transposable bodies. While this technologically advanced posthuman world enables the replacement of collapsing organs of “normal” human beings and extends the naturally conceived human beings’ life span, the human clones’ bodies are instrumentally used. Clones, in a way, continue to exist in other bodies by becoming one with them. Secondly, *Never Let Me*

*Go* reflects on the critical posthuman nature of life by making the reader question what counts as human and what does not. In particular, what makes us human in an age of biotechnology where scientific developments blur the boundaries between natural/artificial, human/nonhuman, organic/inorganic, and self/other is at the centre of the narration. “Suspected of being a fake, a derivative, a copy, or a mere replicant, the clone [that] is diminished by a lack of proper genealogy” (Franklin, *Dolly Mixtures* 26), turns out to possess feelings. In this angle, the clones seem very identical to their human counterparts on the level of showing emotions. Therefore, Ishiguro’s creation of genetically moulded human clones with the cultivation of humanly qualities, feelings, thoughts, ideals, and even dreams like the “normals” questions the conceptualisation of human beings as exceptional and unique beings. This shows affinity with the critical posthumanist challenge of liberal humanist notions of the subject and expands our assumption of what qualifies being a human. Especially from a corporeal perspective, cloned bodies problematise the notion of stable, natural and distinct body. Also, when the clones’ organs are removed to be implemented into the regular humans, the recipient bodies become a posthuman hybrid body that destabilises our very fundamental assumption of the body as a singular unit. As Elizabeth Grosz pertinently puts it in *Time Travels: Feminism, Nature, Power*, (2005) the body “is capable of expanding itself to include within its most operations external, inert objects, prosthetic extensions, organs artificially or culturally acquired rather than organically evolved” (145). In such a biotechnological context, by means of this very organ transplantation, both recipient bodies and cloned bodies become entangled in a web of posthuman embodiment. Their entanglement provides an excellent ground to reconfigure what it is to be human and can create an affirmative “change how we relate to each other” (Jerng 391) in the posthuman world.

It is also worth noting the ethical side *Never Let Me Go* touches upon. By participating in the discussions surrounding the issues of reproductive and cloning technologies with *Never Let Me Go*, Kazuo Ishiguro holds a mirror to contemporary society where the biotechnological developments in addition to fringe science and unaudited experiments have run rampant over the last couple of decades. In this stance, “the society of the novel is obviously the fictional counterpart of our society with its recent breakthroughs in

cloning and stem-cell technologies” (Tsao 220). It can be claimed that Ishiguro was very much influenced by the scientific debate after the proclamation of the successful cloning of Dolly. After the cloning of Dolly took place in 1997, National Bioethics Advisory Commission in the USA released a report. The report “Cloning Human Beings,” put forward by the National Bioethics Advisory Commission for the U.S. President in 1997 states:

In principle, the application of nuclear transfer cloning to humans could provide a potential source of organs or tissues of a predetermined genetic background. The notion of using human cloning to produce individuals for use solely as organ donors is repugnant, almost unimaginable, and morally unacceptable. A morally more acceptable and potentially feasible approach is to direct differentiation along a specific path to produce specific tissues (e.g., muscle or nerve) for therapeutic transplantation rather than to produce an entire individual. Given current uncertainties about the feasibility of this, however, much research would be needed in animal systems before it would be scientifically sound, and therefore potentially morally acceptable, to go forward with this approach. (13)

As can be understood, the commission frowns upon the idea of human cloning to create clones for the purpose of organ donation. In a similar way, Francis Fukuyama says that a ban on cloning can be a significant strategy to regulate biotechnology. *Never Let Me Go* does not propose a counter argument to cloning, nor does it advocate it. In a subtle way, it warns us against the feasible “dehumanized normalization” (Griffin 657) of the latest biotechnological advancements may engender.

With its careful investigation of the ethical reflections of possible human cloning, *Never Let Me Go* falls under the maxim of clone narrative by incorporating the prevailing scientific discourse to explore the ethical implications of genetic manipulation and creation of new life. By means of the embodiment of actual contemporary science, the novel acts as collaboration about how contemporary science and science fiction intermingle, with the dissolution of lines separating them. Through the demarcation of boundaries between science fiction and scientific theories, Ishiguro brings the ethical dilemma forward. It demonstrates the fruitfulness of linking science and literature to help us perceive ourselves as embodied beings with the more-than-human world. As N. Katherine Hayles writes, “literature and science as an area of specialization . . . is a way of understanding ourselves as embodied creatures living within and through embodied

worlds and embodied words” (*How We Became* 24). Her examples are important to quote at length:

The stories I tell here – how information lost its body, how the cyborg was created as a cultural icon and technological artifact, and how humans became posthumans – and the waves of historical change I chart would not have the same resonance or breadth if they had been pursued only through literary texts or only through scientific discourses. (*How We Became* 24)

What this quotation from Hayles’s work reveals is that both science and literature nourish and shape each other in questioning what it means to be human, leading to the construction of the notion of critical posthuman. The existence of literary texts is of vital importance in the emergence of scientific theories. In addition, both of the discourses particularly prompt critical questions with regards to the changing notions of human nature, identity, and body as they elucidate these concepts. Also, as Chris Hables Gray points out, they can “interrogate and modify themselves and each other, leading to new understandings and modifications of lived reality” (*Cyborg Citizen* 186). Kazuo Ishiguro’s exploration of the unexpected outcomes of the rapid posthumanization of our lives with new scientific theories and genetic engineering is in keeping with this concern about the nature of the human.

## CHAPTER II

### TOXIC BODIES IN INDRA SINHA'S *ANIMAL'S PEOPLE*

Earth is sexy, just as sex is earthy. Each of us is a landscape of plains and peaks, valleys and thickets. I speak in metaphors, as through a garbled phone line, but what I mean is plain and simple: body and land are one flesh. They are made of the same stuff. Their beauty is one beauty, their wounds the same wounds. They call to us in the same perennial voice, crying. *Come see, come touch, come listen and smell, and o come taste.* We explore them alike. Honor abuse them alike. The health and sickness of one is inseparable from that of the other. There is no division between where we love and what we are.

“Earth’s Body,” Scott R. Sanders

This chapter explores toxic bodies in Indra Sinha’s *Animal’s People* (2007), which dramatises the toxic legacy of the catastrophically destructive Bhopal gas leak tragedy, leaving thousands of people dead and survivors with severe injuries. On the night of 2 December 1984, in Bhopal, India, as a result of a leak, the Union Carbide pesticide plant factory sprayed forty tons of deadly poisonous gas-cloud methyl isocyanate with other toxins into the sky, spreading over the slum areas. People woke up from their sleep with a severe burn in their lungs, feeling extreme panic and fear. Due to high levels of exposure to toxic chemicals, a great number of townspeople died immediately. Although the number of people who died after the release of gas has been arguable, “[r]eliable estimates indicate that 10,000 people died within the first few days” (Fortun xiiv). However, in the subsequent years the death toll rose to 25,000 with ongoing suffering, pain, and birth deficiencies, as well as many internal, respiratory, growth, and neurological damages and disorders, increasing to 60,000 cases as people continued to be exposed to the ongoing toxicity. The toxic methyl isocyanate (MIC) gas has integrated into the main water line and sewers in the city, thus into tap water. Moreover, the factory and the surrounding area have not been completely cleared of toxins and remediated, perpetually putting people under the risk of continual poisoning. Following the disaster, the Union Carbide pesticide factory, which was later owned by Indian Dow company, was closed. The CEO of Union

Carbide, Warren Anderson, imputes blame on Indian chiefs and workers for the gas leak. He states, “[o]ur safety standards in the U.S. are identical to those in India . . . Same equipment, same design, same everything . . . Lines of communication were broken at Bhopal plant. Compliance with these procedures is the responsibility of the plant operators” (Everest 18-19). The operators, as well as the workers, were accused of not possessing enough skills and not paying necessary attention to protocols and safety measures. Refusing their part in the occurrence of the disaster, Union Carbide representatives did not take responsibility for the gas leak and immediately left the city. As critic Praful Bidwai claims, “Bhopal isn’t only about charred lungs, poisoned kidneys and deformed fetuses. It’s also about corporate crime, multinational skullduggery, injustice, dirty deals, medical malpractice, corruption, callousness and contempt” (“No Way Out”). Moreover, despite the evidence supplied, the representatives of the company repudiate the recognition of present illnesses as the symptoms of that industrial leak. The people of Bhopal have been deserted by the corporate American benefactors as well as their own government who have failed to recognise the horrible effects of this disaster, especially on the poor and disadvantaged people staying in the shanties.

Kim Fortun explains the huge impact of this disaster as such:

Most of those killed were poor. Many lived in slum colonies adjacent to the Carbide plant, in flimsy houses that offered little protection from the weather-or from airborne toxics. The railway station and surrounding areas were also hard hit . . . Meanwhile, people working, waiting, and sleeping on the platform were asphyxiated. The courtyards of Bhopal's hospitals became lined with bodies. Rumors circulated about the dead being dumped in surrounding forests or in the nearby Narmada River. (xiv-xv)

More than two decades later, the situation has not much improved. The foreboding effects of the Bhopal disaster are still profoundly felt and experienced in the ruined lives of survivors. The toxic trace still lingers in the water, land, and in both human and nonhuman bodies. Today, the ground water is still virulent and medical supplies as well as facilities do not suffice for the victims of this pesticide chemical disaster to recover. Therefore, persistent circulation of toxic chemicals within bodies and the environment continues to this day. As a result, the pernicious repercussions of this disaster are still prevalent, still affecting survivors’ lives and causing more related health problems, mainly respiratory



diseases, tumorous growths, eye problems, and also birth defects. The proximity of slums with thousands of inhabitants, lack of precautionary emergency plans, and poor medical conditions exacerbated the disaster. Victims of the Bhopal gas leak tragedy still wait to be compensated and their environment to be cleansed of toxic substances.

The political activist and contemporary writer, Indra Sinha has been relentlessly struggling for a global justice for Bhopal. In addition to producing fictional and non-fictional works to raise a substantial interest and awareness for the unfortunate poor people, he has worked for charities such as Bhopal Medical Appeal and Amnesty International to help supply healthcare. In his 2007 novel, *Animal's People* Indra Sinha dramatises a post-disaster life set in Khapfur with the calamitous impact of the gas leak, and the emergence of various toxic bodies as a consequence. As a fictional representation of the Bhopal disaster, *Animal's People* is an attempt to bring justice to those who continue to suffer from the toxicity in the area.

As this destructive Bhopal incident shows, bodies interact with the flow of chemicals and toxicants, and environmental toxicity changes the bodies of people in drastic ways. This is what Indra Sinha's *Animal's People* (2007) narrates, drawing attention how humans and nonhuman environment are equally contaminated in the toxic environment. The emerging toxic bodies challenge the very conception of pure body, and reveal how toxins become a significant part of the flesh. Thus, the novel provides a critical posthumanist framework in understanding the fluidity of the human body which is "not isolated within a castle" but "enmeshed in a web of relationships" (Langston 147) with the environment. The material feminist theorist Stacy Alaimo explains this fluidity between human bodies and geographical land through her concept of "trans-corporeality," which she defines as a continuous "movement across bodies," emphasising the interconnectivity of "human corporeality with the more-than-human world" (*Bodily Natures* 12). For her, trans-corporeality reveals "unmappable landscapes" (*Bodily Natures* 2) where rigid enclosures or boundaries collapse. Drawing on Karen Barad's term "intra-action," which "signifies the mutual constitution of entangled agencies" (*Meeting* 133), Alaimo recognises matter as "intra-active becoming" (Barad, *Meeting* 394). Trans-corporeality is thus predicated on seeing human corporeality as the material interconnection of bodies with the

environment. Here, human agency is intertwined not only with the social forces, but also with the flows of substances, other bodies, and the environment:

Indeed, thinking across bodies may catalyze the recognition that the environment, which is too often imagined as inert, empty space or as a resource for human use, is, in fact, a world of fleshy beings with their own needs, claims, and actions. By emphasizing the movement across bodies, trans-corporeality reveals the interchanges and interconnections between variously Bodily Natures. (“Trans-corporeal Feminisms” 238)

It is in this context that this chapter examines how human bodies, which have been exposed to toxicity, are toxified through material forces as the boundaries between bodies and environment are always porous and permeable. Since bodies are openly intra-acting with the material world freighted with a myriad of toxic chemicals and all kinds of substances, it is not possible to think of the body as separate from the environment. This trans-corporeal inseparability of the body and the environment, which can also be referred to as “intimate intercourse” (Housser, *Ecosickness* 5) is the critical posthuman understanding of the human. Toxic bodies appear in *Animal’s People* as vivid trans-corporeal examples of the interchanges and flows between bodies and toxic environmental space. Since trans-corporeality traces the material exchanges between bodies and environment, it is a productive model to investigate the emergence of toxic bodies in the novel, which is a result of toxic substances sprayed out by an explosion in an industrial factory.

According to Alaimo, “toxic bodies” are a “particularly potent site for examining” (“Trans-corporeal Feminisms” 260) the workings of trans-corporeality, since all bodies, human and otherwise, are, to greater or lesser degrees, toxic at this point in history. In her words,

the same chemical substance may poison the workers who produce it, the neighbourhood in which it is produced, and the plants and animals who end up consuming it, . . . The traffic in toxins may, in fact, render it nearly impossible for humans to imagine that our own well-being is disconnected from that of the rest of the planet or to imagine that it is possible to protect ‘nature’ by merely creating separate, distinct areas in which ‘it’ is ‘preserved.’ (*Bodily Natures* 18)

In Alaimo’s contention, trans-corporeality is a heightened recognition that bodies are relentlessly co-emerging and co-evolving with the wider environment, and all bodies are

toxic to a certain degree. Serenella Iovino maintains that “[t]his way of conceiving the body as a process of embodiment rather than as a pre-constituted and ‘sealed’ individuality redefines the image of the self: the human self is a process of interacting agencies rather than a fixed, immobile, and self-referential identity” (“Steps to a Material Ecocriticism” 138).

Nancy Langston’s *Toxic Bodies: Hormone Disruptors and the Legacy of DES* (2010) is another significant work that sheds light on toxic bodies, and demonstrate how the human self is intra-actively linked to the environment. It has become an invaluable contribution to environmental studies by bringing forward the problematic toxic history of the use of DES (diethylstilbestrol) and its role in compromising women’s health in particular. Her analysis of DES is noteworthy, because it was the “first synthetic chemical to be marketed as an estrogen and one of the first synthetic chemicals identified as an endocrine disruptor” (ix) that turns bodies into toxic bodies in a threatening way. Langston explores how recurring toxicity through synthetic chemicals have penetrated women’s bodies. After World War II, a new synthetic chemical was widely used by American women to foster pregnancy, to defer menopause or to cure so-called problems associated with menopause, and to increase sexual urge. Increased exposure to this new synthetic chemical has made “the bodies of American women toxic waste sites” (Oppermann, “Feminist Ecocriticism 77”). Langston’s analysis includes data that was used to obtain FDA approval of that drug after World War II, in spite of the scientific findings about its possible hazardous side-effects. This drug led to the toxic contamination of environment and bodies. Later, although doctors ceased to prescribe this synthetic drug, it was continued to be used on cattle to stimulate animals’ rapid growth. As a “palpable example of trans-corporeality” (Oppermann, “Feminist Ecocriticism 77”), the precarious effects of this poisonous chemical DES are passed into the soil and thus into the food supply. More importantly, since the toxicity is passed into the fetus by the flow of liquid into the placenta or into the infant by breastfeeding, that would make their bodies toxic as well. In fact, the exposed fetus or infant is at higher risks of manifesting biological disorders later in his/her life. As this book also demonstrates, bodies, technologies, industrial chemicals and environments are always entangled.

Another writer engaging with the issues of toxic contamination and its effect on the body is Susanne Antonetta, who stresses the emergence of toxic bodies in relation to the chemically fraught environment with her stimulating autobiographical book *Body Toxic: An Environmental Memoir* (2002). Stacy Alaimo alludes to *Body Toxic* as a “richly literary text that portrays the struggle to account for a self who is coextensive with a wider materiality” (*Bodily Natures* 102). Susanne Antonetta explores the ways in which her body has become a toxic body over the years of her exposure to high levels of radioactivity, almost equal to the amount emanated during the Chernobyl disaster, from a nuclear power plant located near Antonetta’s family summer house in the New Jersey boglands, a polluted landscape that is inundated with DDT and toxic waste. Dealing with an array of medical problems afflicting her and her family later in life, with keen observation and scientific analysis, she draws connections between the maladies she and her family experienced for many years. Pointing to the biological transformations their toxin-inflicted bodies have undergone, Antonetta, in retrospect, reflects that “in the seventies, eighties and nineties the Toms River/Beachwood area has been wracked by childhood cancers – particularly of the brain and nervous system – leukaemia and breast cancers at rates many times higher than normal. My family was not. We’ve been wracked by infertility, tumors, organs malformed at birth and manic-depression” (26). While other community members have developed various different types of cancer, Antonetta and her family suffered from arrhythmic heart, liver problems, cysts on ovaries, infertility, miscarriages. Probing into her mother’s past experiences, Antonetta unravels some links connecting past to present with her mother’s exposure to chemical pesticides, in particular, DDT, which is not excreted from the women’s body. Instead, it morphs into DEE (Dichlorodiphenyldichloroethylene) and attaches itself to the fat tissues of women. As Antonetta explains: “When a pregnant woman begins the work of forming her infant she will draw on her fat reserves; I mean to say, her DDE reserves . . . The highest concentration of DDE in an exposed mother will be found in her breastmilk . . . A mouthful of breastmilk and DDE formed my first human meal” (137-138). Breastfeeding seems to be a palpable means to observe how toxins flow from the mother’s body to the infant’s.

Filled with radioactivity, hazardous chemicals, waste, mercury, and DDT, New Jersey, where Antonetta spent her childhood and her early adulthood, not only had a severe impact on their bodies and caused deformation and malfunctioning, but also degraded their mental stability, which in the end causes them to display symptoms of manic depression and confusion. So, her body has been invaded by various forms of toxicity through the poisoned breast milk, the polluted boglands of New Jersey where her immigrant family built a summer bungalow; the radiation from the nuclear power plant nearby, the heavy metals, pesticides, and hazardous waste, where she picked vegetables and fruits, the contaminated river, where she used to swim, fish and row, and the contaminated drinking water.

*Body Toxic: An Environmental Memoir* is an invaluable contribution to trans-corporeal ethics that “turn from the disembodied values and ideals of bounded individuals toward an attention to situated, evolving practices that have far-reaching and often unforeseen consequences for multiple peoples, species, and ecologies” (Alaimo, “Trans-corporeal Feminisms” 253). Antonetta, with her insightful account, interweaves her bodily experiences and polluted landscape from a critical posthuman standpoint, as she focuses on the material agency of nonhuman actants that transform her body into a toxic body.

In fact, both Nancy Langston’s *Toxic Bodies Hormone Disruptors and the Legacy of DES* and Susanne Antonetta’s *Body Toxic: An Environmental Memoir* evince the agentic entanglements of the toxic body and the environments that have inspired the emergence of contemporary “toxic discourse,” which *Animal People’s* is part of. To understand how the novel has incorporated this discourse, it is important to understand its emergence in the environmental debates. The term “toxic discourse” is coined by Lawrence Buell in his *Writing for an Endangered World: Literature, Culture, and Environment in the U.S. and Beyond* (2003), where he defines it as an “expressed anxiety arising from perceived threat of environmental hazard due to chemical modification by human agency” (31). According to Lawrence Buell this discourse has emerged from Rachel Carson’s *Silent Spring*, (1962) and the subsequent environmental crises of Love Canal, Three Mile Island, Bhopal, and Chernobyl. As a “foundational text of toxic discourse” (Tichi 249), *Silent Spring* has been very influential in his argument Rachel Carson was concerned with the

political and biological aspects of toxicity, which helped raise environmental and toxic consciousness in public as well as political authorities. As such, *Silent Spring* created a kind of wake-up call, which led people to question the use of pesticides and other chemicals and their adverse and irreparable effects in their daily lives. Carson contends that “for the first time in the history of the world, every human being is now subjected to contact with dangerous chemicals, from the moment of conception until death” (24). By specifically talking about her hometown, and making her narrative very personal, she invites readers to assess their own environments and hometowns. She says, “it might easily have a thousand counterparts in America or elsewhere in the world” (3). Following Rachel Carson, Buell discusses how the ramifications of the toxic events and contaminated environments, are actually part of a kind of discourse that paves way the way for the framework of toxic discourse. He states that despite the pervasive emphasis on the toxified world foregrounded by various disciplines ranging from medicine, history, ecological studies, economics or sociology, “seldom . . . is toxicity discussed as a discourse” (“Toxic Discourse” 639) by those disciplines. He draws attention to the immediacy of “toxic discourse,” because the environmental threats have escalated with the recent ecological disasters and their lethal consequences. In his words:

although the threat of toxification has long been felt, not only since the industrial revolution but since late antiquity, in recent years the felt urgency has become far more widespread. Love Canal, Three Mile Island, Bhopal, Chernobyl, the Exxon Valdez: this modern mantra lists both actual incidents and their subsequent history in the postindustrial imagination that have ensured that the environmental apocalypticism triggered by Hiroshima and Nagasaki would outlast the cold war. (“Toxic Discourse” 641-42)

What is important about the urgency of toxic discourse is that it stems from “chemical modification by human agency” (“Toxic Discourse” 31). For Buell, the toxic consequences of environmental disasters can aptly be addressed in contemporary fiction in order to contribute to the better understanding of environmental degradation and devastated lives. While contributing to raise awareness to the very dangerous threats to natural environment, contemporary fiction writers writing within the framework of toxic discourse, as Ursula Heise also notes, use the metaphor of toxic components and toxic-laden environment to display how the boundaries between “environment and body, public and domestic space, and harmful and beneficial technologies” (748) dissolve.

As a noteworthy example, *Animal's People* foregrounds toxic discourse to represent the environmental catastrophe as well as its emotional and political repercussions. Furthermore, as toxic discourse emerges from the material-discursive practices and reflect a posthuman approach, it is in this framework that the novel deploys critical posthumanism, which shows how the environment, the human agency, and the discourses around these topics become co-emerging and co-constitutive, dissolving the conceptual and material boundaries between humans and more-than-human environments.

Twenty years before the story in *Animal People's* takes place, Khaufpur, a “fictional counterpart” (Mahlstedt 59) city to Bhopal, (“Khauf” meaning “terror” and “pur” a suffix meaning “city” in Urdu)” (Rickel 4), was gravely devastated by a similar poisonous toxic chemical leak from a factory owned and run by an American company, referred to by Khaufpuris as “the Kampani.” The Kampani, the narrator says, “stood accused of causing the deaths of thousands on that night, plus it ran away from Khaufpur without cleaning its factory . . . Trouble was that the Kampani bosses were far away in Amrika, they refused to come to the Khaufpuri court and no one could make them” (33-34). With Khaufpur in *Animal's People*, Sinha explicitly depicts a landscape of toxicity where human and nonhuman corporeality are affected in detrimental ways. The magnitude of this disaster is strikingly described in the novel: “On that night it was the river of people, some in their underwears, others in nothing at all, they were staggering like it was the end of some big race, falling down not getting up again . . . the road was covered with dead bodies” (32). As the old Indian doctor in the town says: “the moon was two-thirds full. It was shaped like a tear and as it appeared through the clouds of gas, it was the colour of blood” (153). The explosion disperses toxic residues that thrust into the bodies and landscapes in the city. As a result of this prevalent toxicity, thousands of people died immediately and thousands of others injured severely. The soil, food and water in Khaufpur are toxic and so are the bodies of the people. In “Animal's Eyes: Spectacular Invisibility and The terms of Recognition in Indra Sinha's *Animal's People*,” Andrew Mahlstedt states that, “[a]s with its real-world equivalent, Khaufpur is metonym for disaster, for poverty and pain, for toxic bodies. The people in Khaufpur are obscured by the spectacle of that night, becoming only bodies-in-pain, embodiments of all the suffering in the world” (65). That night which is reiterated throughout the course of the novel as “the night of the Apokalis”

(meaning Apocalypse) with its local people as “the people of the Apokalis” (148) corresponds to the night Bhopal gas leak tragedy took place in India in 1984.

*Animal's People* tells the story of a post-disaster life in Khafpur, a place of mutual intra-action between bodies and the more-than-human world. In the wake of a massive industrial disaster in which the factory belched toxic material that gradually built up in both human and nonhuman bodies. As Serenella Iovino explains, this gradual built-up in “both human and nonhuman bodies are interlaced in the ‘trans-corporeal’ domino-effect of the toxic event: contaminated are the soil, the vegetation, nonhuman animals, humans, and their future – the future of all living forms involved in this process of genetic toxification” (“Toxic Epiphanies” 43). Living a precarious life in a toxic environment, local people in *Animal's People* strive to seek environmental and social justice and want those responsible for the disaster to be brought to trial. In the beginning of the novel, the reader is put under the impression that there have been many attempts to depict the toxic anxiety pervading the society in recent times, however, these attempts, mainly coming from the West, seemed to be invalidated. The novel starts with an Australian journalist coming to the city and seeking to interview Animal, “who lost everything on that night” (4). This nineteen-year-old protagonist of the novel is also a fictional representation of a real boy who was terribly afflicted by the toxic accident that devastated Bhopal in 1984. Animal responds to the journalist's solicitation:

many books have been written about this place, not one has changed anything for the better, how will yours be different? You will bleat like all the rest. You'll talk of rights, law, justice. Those words sound the same in my mouth as in yours but they don't mean the same, Zafar says such words are like shadows the moon makes in the Kampani's factory, always changing shape. On that night it was poison, now it's words that are choking us. (3)

Suspicious of the reliability of the journalist, Animal says that like others, you “come to suck our stories from us, so strangers in far off countries can marvel there's so much pain in the world. Like vultures are you jarnaliss” (5). Feeling their presence “like acid on [his] skin,” addressing these outsider power structures as “Eyes,” Animal raises his voice: “What am I to tell these eyes? . . . What can I say that they will understand? Have these thousands of eyes slept even one night in a place like this? . . . When was the last time these eyes had nothing to eat? These cuntish eyes, what do they know of our lives?” (7-



8). Not wanting to be dependent on the journalist's narrative, he opts to record all of his experiences in several tapes to demonstrate the plight of the survivors to the world. He expresses his anger towards these outside powers: "You'll talk of rights, law, justice. Those words sound the same in my mouth as in yours but they don't mean the same" (3). By offering a challenge to the stories comprised by these "eyes," he wants to have the reader take a journey into the lives of people in Khaufpur, as well as into his own personal crippled life caused by the Kampani's irresponsibility. As opposed to the perspective of an outsider journalist who wants to narrate Khaufpuris' suffering subsequent to toxic contamination, Animal offers a critical posthumanist approach in contemplating what actually counts as human and the permeability of boundaries connecting human with the larger environment through his toxic body. Being "certainly post-Humanist," as Stacy Alaimo states, toxic bodies are "certainly not essentialist, since they are volatile, emergent, and continually evolving, in and of 'themselves,' but also they encounter different sorts of chemicals as they move from neighbourhoods or jobs, or as they otherwise encounter various products or pollutants" ("Trans-corporeal Feminisms" 262). Through his satirical narrative blended with crude and foul-mouthed expressions, Animal demonstrates how the bodies of survivors have become toxic bodies, like his own. Through establishing a direct link between his and his people's current medical complications and the poison that has penetrated into their bodies due to Kampani's irresponsible actions, his poignant account indicates a plethora of toxic cases linked to environmental injustice.

From the very arresting start, the extent of the deformation of Animal's body in the aftermath of the disaster can be conspicuously observed. As a result of the chemicals that seeped into his body and made him suffer from scoliosis, compelling him to go on all fours, Animal emerges as a powerful exemplification of a toxic body. Initially, he distinctively makes a comparison of his previous state, before the pervasive toxicity overtakes him, with the present one. Realising his current less-than-proper-human status, he cries out: "I used to be human once, so I'm told. I don't remember it myself, but people who knew me when I was small say I walked on two feet just like a human being" (1). But the disaster stripped away his humanity in the eyes of the people who treat him as less-than-human. Due to the constant revulsion, humiliation and disgust directed at him,

Animal has come to terms with his own state and denies his own humanity. Being proud of who he really is, he utters: “I’m the only one there is of this type” (208). Relatedly, he tells his foster mother, Ma Franci, a demented old French nun: “I no longer want to be human” (1). Reduced to a deformed being, having to walk on his fours, he associates himself more with four-legged entities than two-legged human beings.

Animal was born on the night of the accident, when the sprayed toxic fumes poisoned and then killed both of his parents like it did thousands of others, leaving him an orphan. Covered with a shawl, he was abandoned at the entrance of his house. Instead of killing him, the deadly chemicals that spread over the slum areas around the factory by “touching and burning his interior, neurological and genetic self,” (Johnston 119) damaged his spine in addition to his psychological stability. Animal was adopted by a supposedly crazy French nun, Ma Franci, who was also acting “normal” before the industrial accident struck, yet lost her mind in the aftermath. The toxic contamination affected her psychology and her ability to speak Hindi or English. She now can only speak and understand French, which is a form of aphasia. Besides, she believes that toxic fumes have turned everyone into either creatures or “prophesying angels,” speaking different languages she cannot possibly understand:

On that night all sorts of people lost all kinds of things, lives for sure, families, friends, health, jobs, in some cases their wits. This poor woman, Ma Franci, lost all knowledge of Hindi. She'd gone to sleep knowing it as well as any Khaufpuri, but was woken in the middle of the night by a wind full of poison and prophesying angels. In that great mela of death, those rowdy, unforgettable festivities, her mind was wiped clean of Hindi, and of Inglis too, which she had also been able to speak a sa maniere, she forgot all languages except her childhood speech of France. (41)

In the years following, Animal’s spine began to twist inside out, thus earning him a nickname, “Janvaar,” or Animal. The night the disaster took place stripped him of his humanity and took away his very right to lead a life as a respectable human being in his community. Now, he is to lead an animal life trying to overcome his identity crisis. He has become an ambivalent figure for his body resembles both the body of a human and a nonhuman animal. In this respect, he represents the most poignant effect of the toxic pollution that revealed the posthuman nature of his body. Rob Nixon explains that “his posture is precisely that of a beast of burden. Thus, the symbolic economy of Animal’s

body affords Sinha an implicit yet unforgettable image of a body politic literally bent double beneath the weight of Khaufpur's foreign load" (450). Carrying the burden of toxic residue on his back as evidence of a contaminated past, Animal has become a grotesquely deformed figure as a relentless reminder of the toxic disaster and, the misery of his own people in a polluted environment, as Alaimo contends, "[t]hinking through toxic bodies allows us to re-imagine human corporeality and materiality itself, not as a utopian or romantic substance existing prior to social inscription, but as something that always bears the trace of history, social position, region and uneven distribution of risk" (*Bodily Natures* 261). In fact, "the body as a material text," as Serpil Oppermann also claims, yields many stories of the particular place with which the body is enmeshed:

Like all material agencies, bodies tell stories: stories of social choices and political decisions, of natural dynamics and cultural practices, and of environmental risks and health issues. The most conspicuous of those stories are those of corporeal porousness and environmental pollution. In this sense, bodies are vast archives of toxic substances and discourses, and political, social, and medical conflicts. ("Toxic Bodies" 416).

In this sense, Animal's non-normative posture as the most complex visual representation of toxic body bears witness to the calamity of the disaster. His toxic body is also a concrete example of the invisibility of toxicity pervading society. It signifies a historical "vast archive" which can be used to trace the toxic history of Khaufpur.

Despite no recollection of how he was like when he was a "proper human," during his early childhood, Animal was like other regular children. He was able to run, jump, hop and play until his "excruciating transformation" (Holoch 131) took place. However, he recalls how his body started to transform into a disfigured body in subsequent years and vividly explains the process as follows:

I was six when the pains began, plus the burning in my neck and across the shoulders. Nothing else do I remember from that time, my first memory is that fire. It was so bad I could not lift my head. I just couldn't lift it. The pain gripped my neck and forced it down. I had to stare at my feet while a devil rode my back and chafed me with red hot tongs. The burning in the muscles became a fever, when the fevers got bad I was taken to the hospital, they gave me an injection. It did no good. After that my back began to twist. Nothing could be done. It was agony, I couldn't straighten up, I was pressed forward by the pain. Before this I could run and jump like any other kid, now I could not even stand up straight. Further, further forward I was bent.

When the smelting in my spine stopped the bones had twisted like a hairpin, the highest part of me was my arse. (14-15)

It is clear that the chemical leak from the factory has irreversibly deformed Animal's spine, and, since he could not get medical treatment, he eventually could not stand upright again. The staggering amount of toxicity has become part of his flesh, because he could not leave the contaminated city of Khafpur. The toxification of the city, thus invokes interconnectedness between land and bodies. When "various toxins take up residence within the body," as Stacy Alaimo reminds us, "the supposedly inert 'background' of place becomes the active substance of self" (*Bodily Natures* 102). In Animal's background of place that defines his self, sarcasm becomes the only means of coping with his deformed body:

I'm looking right now at my feet, which are near the hearth, twisted they're, a little bent to one side. Inside of left foot, outer of right, where they scrape the ground the skin's thick and cracked. In gone times I've felt such hunger, I'd break off lumps of the dry skin and chew it. Want to see? Okay watch, I am reaching down to my heel, feeling for horny edges, I'm sliding the thumbnail under. There, see this lump of skin, hard as a pebble, how easily it breaks off, mmm, chewy as a nut. Nowadays there's no shortage of food, I eat my feet for pleasure. (13)

Animal's body is thus a crucial example of a toxic body, indicating material symbiosis between bodies and the wider landscape. Animal shows us how human beings cannot be dislocated or imagined separately from the surrounding to which they are constantly exposed. This also reminds us of what Karen Barad terms as "intra-action:" "we are not outside observers of the world. Nor are we simply located at particular places in the world; rather, we are part *of* the world in its ongoing intra-activity" ("Posthumanist Performativity" 146). Animal's body, thus becomes an embodied posthuman body, dissolving the boundaries between the environment and the body, as well as the boundaries between human and nonhuman bodies. In this sense, Animal offers a meaningful model of "trans-corporeality," in that he embodies a co-determinate life with chemicals that "reconfigure the human as a site of emergent material intra-actions inseparable from the very stuff of the rest of the world" (Alaimo, *Bodily Natures* 156). In this sense, his "trans-corporeality" reveals the vulnerability of the body to xenobiotic substances. Also, as highlighted by Serpil Oppermann, this vulnerability can lead to unpredictable diseases since it involves "multiple risks in the form of incurable illnesses

and viral diseases such as metastatic cancer, birth defects, mad cow disease, or avian influenza epidemic to birds, known as the deadly chicken flu, as well as contamination of landscapes and waterscapes, extinction of species, biodiversity loss, and climate change” (“Feminist Ecocriticism” 77).

So, as myriad substances travel within the bodies, they change often in unexpected ways, resulting in the appearance of diseases and environmental hazards. The unpredictability of toxic agencies vividly observed in Animal’s body manifests itself in an extreme form of progressively debilitating scoliosis combined with severe psychological symptoms, which eventually lead him to even deny his own humanness.

Animal’s repudiation of being called human is placed in the foreground in the novel, “I am an Animal fierce and free / in all the world is none like me” (172). As such, the novel offers us a critical posthumanist perspective as it encourages us to pose questions like what qualifies being human. One of Animal’s friends, Faroq also asserts that if he wants to be treated and “accepted as a human being, [he] must behave like one” (209). He further underlines the same assumption saying that, “the more human you act, the more human you’ll be” (209). Nisha, for whom he has strong affection and love, also emphasises his humanity by saying, “Animal, you are a free human being, you are free to make your own decisions. Nobody will stop you or say you shouldn’t” (194). Perplexed by her statement, he records but does not say directly to her face: “So? . . . I’m not a human being, plus I don’t need anyone’s permission to be free” (194). Another friend of Animal’s and also an anti-Kampani activist, who runs a campaign against the Kampani’s wrongdoings, Zafar states the same things Faroq mentions: “[Y]ou should not allow yourself to be called Animal. You are a human being, entitled to dignity and respect. If you haven’t a name then this is a great opportunity for you. You can choose your own. Jatta for example or jamil, go ahead pick one, whatever you like, we’ll call you that henceforth” (23). Even under the effect of drugs, he hallucinates and talks with a lizard that tells him, “your nature you can never change. You are human, if you were an animal, you would have eaten me” (346). Animal is quite aware of the fact that he is not going to be fully accepted as a proper human being deserving reverence and dignity, therefore he responds: “My name is Animal,” I say. “I’m not a fucking human being. I’ve no wish to be one. This

was my mantra, what I told everyone. Never did I mention my yearning to walk upright. It was the start of that long argument between Zafar and me about what was an animal and what it meant to be human” (23-24). Here, his relentless assertion to categorise himself outside the parameters of normative humanist framework explicitly indicates dubious construction of the word human. This ostensibly suggests Animal’s challenge to be regarded as human in the normative way. He “increasingly challenges the humanist logic that constructs humanity as a distinct category” (Rickel 9). Being in total denial of equating himself with a human being, Animal considers himself, as Rob Nixon points out, a “four-footed species without precedent or a prospect of progeny, the alpha and omega of his kind” (54). This, in fact, evokes his crossing the unbridgeable gap between human and nonhuman animals. Animal thus epitomises “trans-corporeal ethics,” within the context of critical posthuman theory, which rejects the sovereignty and infallibility of human beings and meticulously interrogates the privileged construction of the category “human.” Leading a life of extreme poverty and having to beg for food already divorces him from traditional sense of humanness. Therefore, within the critical posthuman strand, he challenges the universal attributions of what constitutes “human.”

Besides, he rationalises that if he accepts the normative conceptualisation of what it means to be human, he has to agree that he is “wrong-shaped and abnormal” (208). Rather than being labelled as human “trapped in an animal body” (210), he prefers to be referred to as a nonhuman animal. He says, “let me [be] animal, four-footed and free, then I am whole, my own proper shape, just a different kind of animal from say Jara, or a cow, or a camel” (208). It seems that because of his hunchback, he feels more comfortable identifying himself with four-footed animals than with human beings. So, the novel urges us to rearticulate another problematic question about what it means to be human in the critical posthuman discourses. Does his hunchback as a toxic residue make him less human, or nonhuman? Should toxic bodies in pain and misery be considered more animal or less human? These questions make us rethink our essential notion of what is human and what is not as embodied in Animal’s posture.

On the other hand, this posture, providing Animal with some capabilities, also allows him to hear the voices of different things and beings such as animals, rocks, birds and even

thoughts of other people. He says, “since I was small I could hear people’s thoughts even when their lips were shut, plus I’d get en passant comments from all types of things, animals, birds, trees, rocks giving the time of day” (8). His trans-corporeal self is intermeshed with the substances and nonhuman entities in his environment. His perpetual intra-action with the environment can best be observed in his following account:

My arms are round the pipe, now cold, up which the poisons flew to kill a city. The pipe is moaning. A hundred feet above my head wind is blowing across its mouth, the death pipe's wailing like a giant flute. I put my ear to its rough surface and listen. Inside are voices and it's like they are screaming. It's the dead of night, in my head is this howling that makes the hairs of my neck stand on end. I have the power to understand these things, I know right away what this is, it's the dead beneath the earth, it's their bones and ashes crying out in rage against their murderers. The dead are shrieking at me that the good earth has been defiled with blood. (274)

He even establishes a form of connection with a ghostly two-headed fetus referred to as “a child of the poison,” preserved in a jar assembled by Elli, a Western doctor who wants to examine it. Named “Kha-in-the-jar,” this toxic figure communicates with Animal and tells him that “[e]veryone on this earth has in their body a share of the Kampani’s poisons. But of all the Kampani’s victims, we are the youngest. We unborn paid the highest price. Never mind dying, we never even got a fucking shot at life” (257). He continues to tell Animal that he should at least be grateful to be alive, not a mere unborn fetus. In a resentful tone, he says: “Your back is twisted, but at least you are alive. Me, I’m still fucking waiting to be born” (58). As a very significant representation of in-betweenness of being and non-being as well as death and life, the fetus appears to be a posthuman entity. Adele Holoch explains Kha’s posthumanist liminality as such:

He is not only death, but also an example of death before life, of a life never lived, both existing and not existing, in that he has some material body but never had a fully realized human form. He is trapped in a womb-like environment of fluid, but the fluid poisons him . . . And in his slow disintegration there, he is dying, though he was never born. (137)

Kha-in-the-jar’s liminality between human and nonhuman beings evokes shared characteristics with Animal and his posthuman in-betweenness.

Not only can Animal communicate with the dead, unborn and nonhuman forms, but as he is a hunchback and has to walk both on his hands and feet, he can also tell who has not washed himself/herself as he is able to easily detect bodily fluids through sniffing. Animal's toxic posture enables him to access the world of nonhumans that cannot be observed from an ordinary human perspective. As he states, "[t]he world of humans is meant to be viewed from eye level. Your eyes. Lift my head I'm staring into someone's crotch. Whole nother world it's" (2). These instances all suggest that his toxic body allows him to reconcile the human and the nonhuman.

While the toxic residues left from the disaster continue to swirl around the bodies of both human and nonhuman life forms, Animal ironically reflects: "wonderful poisons the Kampani made, so good it's impossible to get rid of them, after all these years they're still doing their work" (29). Although workers have left the factory and the Kampani has closed down, "the invisible poisons remain dynamic, industrious, and alive" (Nixon 459). However, it was not until the Western doctor Eli takes a tour around the city with the Indian doctor that Animal overhears Elli say, "this whole district looks like it was flung up by an earthquake" (105). For the first time, the beautiful imagery of Paradise Alley, "the boulevard" of Khapfur, is shattered in his mind with this striking moment of truth that ultimately creates "a rude awakening" (Buell, "Toxic Discourse" 647), enabling him to report his wake-up call:

On hearing Elli speak this one word, *earthquake* something weird and painful happens in my head. Up to that moment this was Paradise Alley, the heart of the Nutcracker, a place I've known all my life. When Elli says earthquake suddenly I'm seeing it as she does. Paradise Alley is a wreckage of baked earth mounds and piles of planks on which hang gunny sacks, plastic sheets, dried palm leaves. Like drunks with arms round each other's necks, the houses of the Nutcracker lurch along this lane which, now that I look, isn't really even a road, just a long gap left by chance between the dwellings. Everywhere's covered in shit and plastic. Truly I see how poor and disgusting are our lives. (106)

Central to this quotation, his abrupt realisation of the ecological as well as ontological consequences of the disaster can be closely correlated with his emerging "toxic consciousness," a term coined by Cynthia Deitering, which she explains as a "fundamental shift in historical consciousness, . . . a shift from a culture defined by its



production to a postindustrial culture defined by its waste” (197). Deitering further touches upon the shift in how people perceive themselves in relation to the natural world and ecosystems. She says, “we came to perceive, perhaps inchoately, our own complicity in post-industrial ecosystems, both personal and national, which are predicated on pollution and waste” (197). It is in this relation that we observe a shift in Animal’s perception of his formerly Paradise-like city. Through Eli’s “eyes,” Animal observes the toxic realities of the world in which he and his people are living now. The pastoral childhood image of Khapfur is replaced by the post-natural world, wrecked by poison, pollution, waste, and toxic laden materials. Developing toxic consciousness towards his environment, Animal bitterly becomes cognizant of the extent of contamination and the prevalence of diseases.

In continuation of their tour, the Indian doctor and Elli encounter a nursing mother who squeezes her breast milk which squirts onto the ground rather than feeding her baby, because she tells them the milk “burns his [the baby’s] gut” (107). She mentions the invisibility but pervasiveness of the toxicity in her milk: “We have looked upon the milke and it semeth to muche thinne and watry. Plus it enclyneth to reddenesse, which is unnaturall and eill. Likewise, it tasteth bitter, ye may well perceyue it is unwholesome” (107). This quintessential example seems to suggest that the poisons attack through the skin of the body and then penetrate into the internal organs. The breast-feeding is a trans-corporeal process as toxins in the environment flow through water, air, and food, contaminating first the mother’s body, and then the baby’s body. So, the baby, by ingesting the human milk, in fact, ingests environmental toxins into its body. As Serenalla Iovino puts it, “[o]ften ‘infiltrated’ by material exposure to health-impairing substances and by ideological constructs of power, women’s bodies become a meaningful crossroad of these multiple agencies” (“Toxic Epiphanies” 38). So, more attention is paid to the woman’s body as it bears the heightened risk of getting poisoned by environmental toxins and passing these toxins on to the infant. That could result in miscarriages, or babies with birth defects. Serenalla Iovino draws attention to the crucial place of women providing “ecological connection” between the mother and the baby. She pinpoints that “the genetic effects of dioxin on fetuses *through their mother’s body* shows an explicit awareness of the critical role of women in this system of entangled contaminations. Women are

affected twice: in their own bodies, and – trans- or inter-corporeally – in their babies’ bodies” (“Toxic Epiphanies” 46). In a similar vein, Sandra Steingraber highlights the damage done by contaminated breast milk in *Living Downstream: An Ecologist's Personal Investigation of Cancer and the Environment*, (2010) in which she writes: “We see why infants are at special risk: residues of fat-soluble pesticides contained in the food eaten by nursing mothers are distilled even further in breast milk. In essence, breast-feeding infants occupy a higher rung on the food chain than the rest of us” (168). Nancy Tuana, too, in her article “Viscous Porosity: Witnessing Katrina,” lays bare the viscous porosity of breast milk. Building on an ecologist, Sandra Steingraber, Tuana claims that the most contaminated human food among all foods is undisputedly breast milk. She states: “Burning PVC [Polyvinyl chloride] creates dioxin, a known human carcinogen. It is lipophilic, concentrated in fat, so breast milk concentrates the levels of dioxin and other toxic residues” (201). Therefore, rather than feeding it to the baby, the young mother in the novel opts to express and dispose of her breast milk, which is immensely toxic. This young mother later warns Elli about the toxic pollution saying that if she stays here a little longer, she possibly will not be able to escape from the affiliation of chemical spill and toxic contagion. This trans-corporeal dissemination between bodies and the environment is explicit in her statement ending with a warning to Elli: “Our wells are full of poison. It’s in the soil, in our blood, it’s in our milk. Everything here is poisoned. If you stay here long enough, you will be too” (108). If she spends more time there, she will be toxified by the chemical substance and eventually be dead in the end. This seems to suggest that fatal toxicity has become an integral part of their lives as their bodies are reciprocally entangled with the chemical agents and dangerous substances. In other words, in their precarious lives Khaupfuris are pervasively confronted with the omnipresence of toxic menace as water, soil and air are highly contaminated. The profound impact of toxicity can be observed in what they eat, drink, touch or breathe; in brief, it is felt in every aspect of their lives. These chemicals change their bodies immensely, metamorphosing them into toxic bodies. So, the mother warns Elli that it is evident that the power of toxic agency will eventually infect her body.

Another prominent representation of toxic body in the novel is the character called “I’m alive,” who is indeed glad to be alive, while his neighbours are plagued by cancers and

pass away. Despite his worsening eyesight, collapsing lungs, and numbness in his fingers, he holds onto his life. He recounts that “in that house opposite lived Sahara, one day blood came from her womb, it was cancer, forty-six years old she was, died right there across the road . . .” (109). He further continues to record how his neighbours become infected. He explains:

Next door to her [Sahara] was Rafi, spent all he had on medicines, hardly did he spare ten rupees for food, but it did him no good. He too's gone leaving me to remember him. My neighbor on this side, Nafisa, in her neck had swelling and pain. She could not lift her arm, she used to say that it felt like someone pulling her nerves from the inside. (109)

The relentless contamination presiding over the city has also affected a famous musician too. Named Somraj and commonly referred to as the “voice of Khapfur,” he used to sing beautifully before the industrial accident. Having lost his voice, he cannot sing anymore because his lungs are plagued by the toxic fumes. Another victim of the disaster in the novel, Gargi, an old woman with a hunchback almost as bent and twisted as Animal's, carries the presence of toxicity in her body. When the representatives of the Kampani arrive, they tell the local people in a deceitful manner that they were “making medicine for the fields” (306). She critically questions their intention by responding to them: “Mr. Lawyer, we lived in the shadow we lived in the shadow of your factory . . . You were making poisons to kill insects, but you killed us instead. I would like to ask, was there ever much difference, to you?” (306). Thus, her questioning indicates that the Kampani treats them in the same manner as they treat insects. Khapfuris are regarded as less-than-human for the lawyers, who represent the interests of the company. After deferring the trials and eluding their legal responsibilities for virtually two decades, The Kampani lawyers now decide to negotiate with the locals, and promise to bring medical remedy to them as part of their purported humanitarian project.

*Animal's People* significantly dramatises the problematic aspect of the invisibility of toxic substances to the human eye, leading Kampani lawyers to ask, “in what ways specifically is the water affecting people's health? What kinds of illnesses are showing up? Has she [Elli] seen the evidence with her own eyes? How can she [Elli] be sure the chemicals in the factory are to blame?” (322-23). The illnesses and diseases arising from

this industrial catastrophe do not emerge immediately but gradually take place so it is difficult to trace the toxic dimension of the disaster. This is what Rob Nixon calls “slow violence” to “give symbolic shape and plot to formless threats whose fatal repercussions are dispersed across space and time” (14). In other words, the catastrophic magnitude of the gas leak is unveiled over time. First, “the ongoing diffusion of chemicals into living bodies, [then] the neurological metamorphosis produced by chemical violence” (Johnston 120) begin to appear as recognisable effects of the spill. Since toxic pollution disperses among bodies at a slower pace, it is also hard to trace the toxic residues in the bodies until they accumulate to an alarming degree. This can be recognised in Elli’s observation when she blindly believes that filth and waste thrown away is what has caused the locals to be ill. She says: “Hardly surprising they are ill, I guess so the Nutcracker folk don’t hear. Look at this filth, litter and plastic all over, open drains stinking right outside the houses. Flies. Every bit of waste ground is used as a latrine, I’ve seen people defecating on the railway lines” (105). As she considers the filth is the root cause of the gripping illnesses, Elli’s envisioned solution to the prevalence of illness is to “[o]rganise people into teams to pick up the litter. Bring in pipes, water taps, build proper latrines . . .” (105). Additional deformations in Animal’s body continue to be observed over nine years. This, as Nixon says, is a violence “that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all (2). “Violence,” for Nixon, “is customarily conceived as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility” (2). He further claims that because their disastrous repercussions are not instantaneous and visible, the incidents, such as “climate change, the thawing cryosphere, toxic drift, biomagnification, deforestation, the radioactive aftermaths of wars, acidifying oceans” (2) are not considered to be violent. After they occur, the illnesses, birth defects, deformities following them develop gradually in time as the staggering effects of the slow violence “encompasses a long and uncertain timeframe” (O’Brien 22). Toxins flow slowly through the bodies as well as cities, causing irreparable damage to both human and nonhuman life forms. From such recognition, Animal’s body is the symbol of “pervasive but elusive violence of delayed effects” (Nixon 3) since he is reduced from upright stance to the point of having to walk

on his fours, not immediately but over a significant time period. Not only Animal and his people, but also the unborn victims are fiercely affected by the spill.

When the destruction begins to make its presence felt in the lives of Animal and his people, the Western doctor, Elli Barber, comes to Khapfur to offer assistance and help those who are injured by the accident. In contrast to her expectations, she further exacerbates the existing toxic anxiety among people more. Providing an “international medical intervention” (Taylor 180), her trustworthiness and genuineness are questioned by Zafar first, then Animal, because they believe Western doctors are moulded by and under the control of their governments, hence they are corrupt and abusive. Therefore, Elli is initially considered to be a spy, serving the “Kampani” responsible for the disaster and acting in its interest. Highly motivated by Zafar, who is an adamant activist trying to earn justice against the Kampani’s actions, people suspect that it is not coincidental for Elli to open her clinic as the date of court trial approaches. Zafar motivates people into thinking that the conspiracy behind this free clinic intended is to refute the existence of toxins lingering in the bodies of people. To his mind, the Kampani would easily claim that the lives of people are ruined due to hunger and lack of hygiene, not because of some chemical spill that hit the city twenty years ago. He says:

Think like the Kampani. Thousands of people say that for twenty years their health’s been ruined by your poisons. How do you refute this? We say that the situation is not as bad as alleged, that not so many people are ill, that those who are ill are not so seriously ill, plus of whatever illnesses there are, most are caused by hunger and lack of hygiene, none can be traced back to the night or to your factory . . . You are the Kampani . . . Thousands more claim that your factory has poisoned their water and made them sick. To refute them you’ll say whatever may be in the wells, it does not come from the factory, that the chemicals in the factory don’t cause these kinds of illnesses. (69)

Influencing the community not to go to her clinic and casting doubt on her medical practice that is free of charge, Zafar manages to boycott her, to which she responds rather vehemently: “Hey Animal’s People, I don’t fucking understand you!” (113). Despite her desire to cure sick victims of the disaster by offering healthcare free of charge, her clinic remains unattended for a while. Later, feeling completely dismissed, she probes into the understanding of their cultural stance and why people tolerate all the contamination, corruption, poison and negligence in the city. She finds it very strange that people meekly

accept toxicity swirling around as well as political defilement while they stubbornly refuse her help by boycotting her in vain. She expresses her confusion as such:

This is the strangest thing of all about Khafpur, that people put up with so much. Take a look. It's not just blacked out streets and killer traffic, people in this city tolerate open sewers, garbage everywhere, poisoned wells, poisoned babies, doctors who don't do their jobs, corrupt politicians, thousands of sick that no one seems to care about. But wait, let someone come along with an open hearted offer of help, these same citizens can't tolerate it, in fact find it so intolerable they must mount a boycott. People in this city must be either blind or mad. I don't get the way Khaufpuris think. (151)

Only after she becomes a true member of the community do people start to rely on her assistance. The suspicion that Elli is conspiring against the Khaufpuris is relieved.

While the Indian doctor shows the American doctor, Eli, around, he cynically explains that unlike poor people in the slums who do not forget about the disaster, “the rest of [them], citizens, city council, chamber of commerce, everyone, [they] all want to move on” (153). The statement the Khaufpuri doctor makes clearly demonstrates the bifurcation between the poor and the rest. He later concludes that “those poor people never had a chance. If it had not been the factory it would have been cholera, TB, exhaustion, hunger. They would have died anyway” (153). As often seen, the incessant effects of poisonous gas and lethal substances are explicitly observed among the poor and less privileged communities. Indra Sinha, like many other contemporary novelists who write within toxic discourse, stresses that the poor, underprivileged, marginalised and deviant groups are the ones that feel the foreboding effects of catastrophes and the injustices following them. People belonging to these underprivileged groups are considered to be dispensable and easily disregarded. Pointing to the marginalisation of the poor, Andrew Mahlstedt calls this “spectacular invisibility” (59), which represents the disempowerment of the poor. For the Amrikan kampani, lawyers, or elites like the Indian doctor, “Animal and his people are literally invisible” (Mahlstedt 59). In a similar line of thought, Adele Holoch emphasises that as “impoverished and maimed citizens” (129) of Bhopal, they are “constructed as human waste as so profoundly separate from members of the First World that their lives cannot signify or matter in the same way, in our court systems or in our social imaginations” (130). In a poignant observation of their inhuman status or less-than-

human status in the eyes of the journalist, who probably stand for outside power groups, he says, “we are not really people. We don’t have names. We flit in crowds at the corner of his eye. Extras we’re, in his movie” (9).

Through the depiction of invisibility of poor people and their deprivation of equally distributed human rights, democracy, and justice in *Animal’s People*, Indra Sinha draws critical attention to the plight of invisible citizens of Bhopal. These victimised people were living in flimsy houses with little protection from airborne toxins. As Kim Fortun states, the reason why Bhopal was selected for this plant pesticide factory to be constructed is that it was deemed “backward” (xiv), and it connected roads and rails to the major ports to the rest of the world. People waiting or working on the platforms were “asphyxiated” (xiv). In *Animal’s People*, the city Khafpur is chosen for the factory to be established because it is a rural and poor community. Their proximity to the explosion site makes the slum dwellings more potentially vulnerable to the chemical contamination while making the inhabitants the worst affected victims of this environmental calamity.

Considering the trans-corporeal connectivity, Bhopal, as well as the fictional re-working of it, Khapfur, are plagued by environmental contamination, which serves to highlight the entanglement of the global with the local, the rich with the poor, the past with the future and bodies with the environment. It is like a “maelstrom produced by opposing currents, sucking everything into an upward spiral – with gas victims at storm center” (Fortun 1). *Animal’s People* presents the impact of industrial chemicals especially on poor communities who are advertently deprived of medical compensation. As a result, as Susie O’Brien reflects, the “privations of poverty compound the effect of toxicity” (26). Relative to richer communities, environmental problems are more often observed in poor communities where contamination is at the highest. The non-privileged groups are not only very much victimised by the toxic chemical assault, they are also the victims of social disability due to the ways in which they are exposed to social and political inequality and injustice. As Nancy Tuana points out, despite the mark on the flesh of our bodies that chemicals, plastics, and waste leave, it is the bodies of poor that become tremendously polluted because they are the ones who are neglected most by the corporate

organisations and governments. They “have disproportionately suffered the negative effects of this material-semiotic interaction” (203).

Towards the end of the novel, an opportunity for Animal to go to America and have a surgery to be upright again manifests itself. As a part of her humanitarian approach, Elli has arranged medical treatment in America in order to fix his bent spine. Momentarily, filled with hope to be “young, upright and handsome” (187), he expresses his excitement to be “normal” again. The intense desire to have a chance to be with Nisha, the woman whom he passionately loves, grows stronger after he learns that his expenses and surgery will be covered with the help of Elli. Animal has always wished his posture was not “bent as a scorpion’s tail” (47) so that he can marry Nisha and be happy: “[o]ver and over I’d tell myself, if only I could stand up straight, it might be a different matter” (47). By straightening his spine this surgery would make him an “upright human” (366). Only his love towards Nisha inspires him to be “properly human” again, but then he imagines, “hope is a crutch for weaklings” (75). So, he stifles his desire to have surgery, for having a life with Nisha will always be a dream for him. His desire to be free and unrestrained surpasses his love for Nisha. This is why, when the possibility of getting fixed and standing upright again manifests itself, he refuses international medical intervention.

See, Eyes, I reckon that if I have this operation, I will be upright, true, but to walk I will need the help of sticks. I might have a wheelchair, but how far will that get me in the gullis of Khaufpur? Right now I can run and hop and carry kids on my back, I can climb hard trees, I’ve gone up mountains, roamed in jungles. Is life so bad? If I’m an upright human, I would be one of millions, not even a healthy one at that. Stay four-foot, I’m the one and only Animal. (366)

Disdaining to be restored to regular human status and being exactly similar to other human beings, he embraces his toxic body standing uniquely “four-footed”, enjoying the freedom to remain “the one and only Animal” (11) with his unique self and identity. This is indeed what makes him a posthuman figure, making him come to terms with his nonhuman animal subjectivity and “resists being associated with those who have treated him as a lesser form of life” (Rickel 100).

In this sense, the notion of toxic body not only manifests posthuman embodiment between the self, nature, and the body through the dissolution of traditional boundaries between



them, but it also focuses on the vulnerability and permeability of the bodies to innumerable types of material exposure such as toxins, microbes, waste, poisons, and other chemical substances. As Nancy Tuana explains,

here is a viscous porosity of flesh – my flesh and the flesh of the world. This porosity is a hinge through which we are of and in the world. I refer to it as viscous, for there are membranes that effect the interactions. These membranes are of various types – skin and flesh, prejudgments and symbolic imaginaries, habits and embodiments. They serve as the mediator of interaction. (199-200)

Tuana maintains that while the porosity of our bodies “is what allows us to emerge – as we breathe in oxygen we need to survive and metabolize the nutrients out of which our flesh emerges – this porosity often does not discriminate against that which can kill us. We cannot survive without food and water, but their viscous porosity often binds itself to strange and toxic fellows” (198). This is what is observed in *Animal’s People*. The fluidity and the porosity of the boundaries caused the penetration of toxic agency into the bodies, culminating in ontological transformations.

Considering their trans-corporeal connectivity, the environments and the bodies of human are equally plagued by environmental toxic degradation. Here, the toxicity points to larger problems and serves to document how large industrial agencies and corporations cause environmental threats. As an activist and an influential novelist, Indra Sinha, by turning this real event into a fictionalised narrative, raises some awareness to take political action, and underlines how bodies are still terribly affected by the flow of chemical substances. Throughout the novel, several victims are afflicted with not only physical deformity but also mental degradation too. They also become victims of social disability and political, inequality. Overall, this novel calls for an environmental and political justice.

At the end of the novel, succumbing to his jealousy, Animal decides to poison Zafar by giving him “datura” pills to dampen his sexuality. Zafar eventually enters a state of hallucination where he feels “insects crawling over him” (246). What is ironic about Zafar’s case is that he is not afflicted with any kind of disease stemming from the toxification since he is out of the city when the factory blazes out toxic chemicals. Despite being an outsider, Zafar “lived among them, dressed like them, shared their poverty and

drank water from the same stinking well” (22). In his attempt to save people, Zafar is poisoned and destined to become a toxic body too. His main aim to come to Khafpur is to help the poor win their case against the Kampani so that “justice should prevail” (227) and the guilty ones pay the consequences of their actions. In addition, he goes on a hunger strike to draw the Kampani’s attention against its wrongdoings. Observing the toxic meltdown in his body, Elli warns him about the consequences of hunger strike and how he is going to pass away if he continues to fast:

In the first few days your body will raid your muscles and liver for their stores of easy energy. It’s called glycogen. You’ll lose weight fast. With the glycogen gone the body starts feeding on muscle. That includes heart muscle. When the muscles are exhausted, the body burns ketones produced by cracking fats. This also makes a lot of toxins. When the fat is used up the body goes into meltdown. It has nothing left to feed on but vital organs, but serious damage begins well before that. (289)

Even when his body is toxified, he dreams of a Khafpur free from the Kampani’s poison and corruption:

The Kampani must return to Khaufpur, remove the poisons from its factory plus clean the soil and the water it has contaminated, it must pay for good medical treatment for the thousands of people whose health it has ruined, it must give better than one-cup-chai-per-day compensation, plus the Kampani bosses must come to Khaufpur and face the charges from which they have been running for so long and the court case against them should conclude. (246)

However, his wish does not come true and the novel does not end with an optimistic tone. The hopes to win the trial are dashed when the court reaches a verdict that sides with the Kampani’s interest. Zafar who has given up all his life and career to fight for justice in the wake of ecological contamination and for medical healthcare for his people, dies in the end. The court hearing is again put off, and “there is still sickness all over Khaufpur, hundreds coming daily to Elli doctress’s clinic . . . the factory is still there, blackened by the fire it’s, but the grass is growing again, and . . . still the foreign jarnalis come and as Animal declares tomorrow there will be more of us” (365-66). With this definitive statement, Animal sees no fundamental transformation; however, as Adele Holoch also puts it, “change, or transformation, can indeed occur on this level of blurred boundaries and bodies” (141). By critically demonstrating the porous boundaries between self and environment and suggesting that bodies cannot be thought separate from the environment,

Indra Sinha enables us to develop an ethical and political approach to toxic exposure and environmental degradation.

Toxic bodily pollution is a part of a larger environmental debate that is closely related to the issues of environmental justice, ethics, as well as social and environmental policies. As clear examples of trans-corporeal space, toxic bodies, as Alaimo underlines, “encourage us to imagine ourselves in constant interchange with the ‘environment,’ and perhaps, to imagine an epistemological space that allows for both the unpredictable becomings of other creatures and the limits of human knowledge” (“Trans-Corporeal Feminisms” 262). Therefore, the toxic bodies of the characters in the novel raise critical issues that many posthuman scholars and theorists have linked with what they call environmental ethics, which have become much-needed in our posthuman times. Toxic bodies therefore “provoke a posthuman environmental ethics” (Oppermann, *Book Reviews* 105) which Alaimo describes as an “ethics that is not circumscribed by the human but is instead accountable to a material world which is never merely an external place but always the very substances of our selves and others” (*Bodily Natures* 158). Because of “the flows, interchanges, and interrelations between human corporeality and the more-than-human world” (*Bodily Natures* 142), the disconnection from our environment is not possible. Within this toxic discourse framework, the concept of trans-corporeality becomes significant means of approach to perpetuate an ethical response to relentlessly ongoing environmental devastation and increasing toxic contamination in our lives. Like many posthuman scholars who have adopted ethical stance to environmental issues, Indra Sinha tends to urge us to reconsider our bodily embodiment with the material world. This material world, Sinha implies, is not an external place but is the very stuff of our selves. In this sense, the novel presents a pertinent insight into the interconnectedness of ourselves with the environment pervaded by unpredictable material forces, can open up a new way of creating ecological awareness. In all of these ways, we are presented with the opportunity to change our anthropocentric approach to the more-than-human world.

### CHAPTER III

#### CYBORG BODIES IN JUSTINA ROBSON'S *NATURAL HISTORY*

Why should our bodies end at the skin, or include at best  
other beings encapsulated by skin?

“A Cyborg Manifesto,” Donna Haraway

Technology is not neutral. We're inside of what we make,  
and it's inside of us. We're living in a world of  
connections – and it matters which ones get made and  
unmade.

“A Cyborg Manifesto,” Donna Haraway

We live in a cyborg society.

*Cyborg Citizen*, Chris Hables Gray

Justina Robson's *Natural History* (2005) exposes the conflict between the organic and the cyborg bodies, and refabricates a plausible modified body, the Forged. The Forged are virtually humans; however, their psychological attributes, or physiology, and their mental outlook are distinctly different from what is considered to be the natural human as a result of genetic modifications they have experienced. Even though Justina Robson particularly aims to conflate two entities – natural human bodies represented by the Unevolved in the novel, and posthuman cyborg bodies represented by the Forged – their ongoing conflict with each other is the central focus of the novel. The Forged, or rather the cyborg body, as a new breakthrough for exploration, is an augmented form of the Unevolved humans, and designed to perform specific jobs. Of particular importance, since their cyborg bodies have both organic and mechanical components, they are assigned to work in compelling environments because they are more enduring than the natural Unevolved humans, and can overcome the hardship when encountered. Correspondingly, the Unevolved have also meticulously constructed a cybernetic machine, MekTek to communicate with technologies in the sense of maintaining interaction with the Forged while using it to surmount their bodily weaknesses. This cybernetic entity, which embodies artificial intelligence systems, is implanted into the bodies of the Unevolved. Throughout the novel, it becomes difficult to distinguish the Forged from the Unevolved with MekTek

implant in terms of form and the abilities they acquire. Owing to their human biology and human origin, the Forged exhibit human characteristics and display human emotions no different than what is accepted as real human beings – the Unevolved. Regardless, the Forged have been genetically altered via incorporation of various different animal genes and machinic extensions into their bodies, pertaining to becoming something other than what we refer to as “normal” human being. Although they did not undergo genetic manipulation, the Unevolved also, with the insertion MekTek technologies as prosthetic supplements to their bodies, complicate what qualifies as human. In placing the Forged and the Unevolved in a vexed relationship, Robson puts the definition of human into question, and demonstrates the hardship in marking the distinctions between the so-called natural and the cyborg bodies in a cybernetic paradigm.

Within the critical posthuman context, this chapter explores how the naturally-born and genetically-manufactured seem to interchange with each other so that the stable categories between them become harder to trace. The novel problematises the essential categories between human and nonhuman, organic and inorganic, self and other, real and simulation, in addition to questioning traditional assumptions about the natural status of the body, individual identity, and the autonomous self. For this particular purpose, this chapter considers Donna Haraway’s conceptualisation of cyborg metaphor in exploring Justina Robson’s *Natural History*. Attributing critical posthuman qualities to the cyborg, Donna Haraway, in particular, focuses on human-nonhuman webs of entanglement by means of the complexities of the posthuman world.

Before analysing the ways in which the genetically altered bodies, namely, the Forged are rendered as cyborg bodies, resonating with Haraway’s cyborg image in the critical posthuman context and challenging the assumption of what counts as human, it is of vital importance to explicate what the term cyborg signifies and how it has become a precursor in the trajectory of critical posthuman studies. Since the cyborg has turned into an iconic figure towards the end of the late twentieth-century, it has been variously defined and referred to by many scholars from many different angles. These scholars including Donna Haraway, N. Katherine Hayles, Anne Balsamo, Alison Muri, Scott Bukatmann and Chris

Hables Gray, all explore in various angles how the term cyborg shapes our thinking in the reconfiguration of the human.

Before reconceptualised by Donna Haraway, it was two NASA research scientists, Manfred Clynes and Nathan Kline who coined the term cyborg, short for cybernetic organism, with a particular definition in their article “Cyborgs and Space,” published in *Astronautics* in 1960. In their own statement:

For the exogenously extended organizational complex functioning as an integrated homeostatic system unconsciously, we propose the term “Cyborg.” The cyborg deliberately incorporates exogenous components extending the self-regulatory control function of the organism in order to adapt it to new environments. (27)

Manfred Clynes and Nathan Kline thought about the possibility of living in outer space during extra-terrestrial explorations by altering bodily functions with implants and drugs to create a “human-friendly environment” (Cook 2). They thus envisioned an augmented “man” to compound information circuits. The lungs of this augmented “man” would be replaced by an “inverse fuel cell” (Clynes and Kline, “Cyborgs and Space” 75) and his heart by various injections of amphetamines. Clynes and Kline suggested a combined cybernetic and computational approach in order to create man-machine hybrids, which are “artifact-organism systems” (26). Their implanted electronic devices would measure the possible heart rate, metabolism, breathing or lung capacity and other bodily functions, and then send bodily feedback signals to enable a human body to compensate for the deregulations. Clynes and Kline named this cybernetic organism “self-regulating man-machine” (27), which would be a mixture of the organic and the technological parts. The aim of their notion of the cyborg was “to provide an organisational system in which such robot-like problems are taken care of automatically and unconsciously, leaving man free to explore, to create, to think, and to feel” (27). Therefore, succinctly put, the cyborg was literally developed as a means for humans to survive in alien environments, and to enable them to adapt to threatening conditions such as surviving in space without space suits.

Actually, Manfred Clynes and Nathan Kline not only introduced the idea of cyborg, but they also produced it in their laboratory. “One of the first cyborgs” (27) proposed by Clynes and Kline was a white laboratory rat at New York’s Rockland state Hospital in

the late 1950s. It was part of an experimental program and was implanted with an osmotic pump “designed to permit continuous injections of chemicals” (Clynes and Kline, “Cyborgs and Space” 27) at a controlled rate and to monitor the pump’s delivery of injections in computer systems, thus allowing the alteration in his physiology to be easily monitored. This idea was revolutionised to make the rat adaptable to living in alien environments while observing the changes in its physiological parameters. According to Haraway, this hybrid entity of machine and organism is

an ontologically new, historically specific entity: the cyborg, the enhanced-command-control-communication-intelligence system (C<sup>3</sup> I). Here, the machine is not other to the organism, nor is it a simple instrument for effecting the purposes of the organism. Rather the machine and the organism are each communication systems joined in a symbiosis that transforms both. (*The Haraway* 299)

Despite being coined by NASA engineers as a cybernetic device effectively integrated into an organism for practical purposes, the cyborg is taken as a metaphor by Donna Haraway, as a post-gender materially hybrid creature of social and scientific reality. Emerging from her famous article “A Cyborg Manifesto: Science, Technology, and Socialist Feminism in the 1980s,” the term cyborg became a potent icon in various discourses, especially in critical posthuman thought. An influential posthuman scholar, N. Katherine Hayles, describes the work as the “legend of late 20<sup>th</sup> century scholarship,” which has “achieved monumental status (“Unfinished Work” 159) over time.

Donna Haraway’s departure point while structuring the ideology of the posthuman cyborg figure is from a socialist-feminist perspective. As a key motif, the cyborg identified as “a politically situated female entity” (Michael 29). Haraway herself explains her first intention of using the term cyborg as a manifesto to disrupt the patriarchal discourses. She writes: “I used the cyborg as a blasphemous anti-racist feminist figure reshaped for science-studies analyses and feminist theory alike (“Cyborgs and Symbionts” xi). In this respect, “A Cyborg Manifesto” is one of the significant steps “to contribute to a socialist-feminist culture and theory in a postmodernist, non-naturalist mode and in the utopian tradition of imagining a world without gender” (292). The cyborg claims Haraway is “a creature in a post-gender world . . . [with] no origin story” (273) that opens up a space to make us reconsider “women’s experience” in the late twentieth century (“A Cyborg

Manifesto” 291). It asks us to see the world without gender borders. Therefore, the cyborg has been accepted especially by women scholars as a post-gender feminist emblem in undermining the conventional gender roles. Symbolising feminist liberation, the cyborg metaphor seeks to reconstruct the idea of what is naturally woman, because Haraway forges a direct alliance between women’s liberation and biotechnology. In that sense, “A Cyborg Manifesto” is a direct response to patriarchal doctrines that control and entrap women within subjugating binaries where female identity is correlated with weakness, inertness, emotions, and the body. Through her manifesto, Donna Haraway not only posits a challenge to patriarchal and misogynist ideologies that naturalise gender norms, but also all long-standing totalising discourses based on dualistic thought.

Despite Donna Haraway’s initial aim to contribute to the emancipation of women, the cyborg metaphor has come to be known as a posthuman figure. Although Donna Haraway denounces affiliation with the term posthuman, and declares that “I never wanted to be posthuman, or posthumanist, any more than I wanted to be postfeminist” (*When Species* 17), still her configuration of the cyborg metaphor has a pivotal role especially in the development of critical posthuman thought. As such, positioning the cyborg at the contemporary transgression of barriers that separate humans from the more-than-human environments, Donna Haraway has undeniably contributed to the development of critical posthuman thought.

Haraway mainly uses the cyborg metaphor to collapse bodily boundaries especially between humans and machines. She defines the cyborg as “a hybrid of machine and organism, a creature of social reality as well as creature of fiction” (“A Cyborg Manifesto” 291). She continues:

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. The cyborg is a condensed image of both imagination and material reality, the two joined centres structuring any possibility of historical transformation. (“A Cyborg Manifesto” 272)

The cyborg is a hybrid entity that contests clear distinctions between the real and the virtual, male and female, self and other, but most importantly, it blurs the line where the



body ends and technology begins. Since it is neither wholly organic nor utterly technological, it has significant potentiality to dissolve the persistent boundaries between what has been considered natural bodies and technologically refashioned bodies. This bodily boundary-breaking leads to the articulation of the body as both a material entity and a discursive process. Haraway writes in this regard:

Broadly within late twentieth-century scientific discourse, the natural body is conventionally a biotechnological cyborg – an engineered communications device, an information generating and processing system, a technology for recognizing self and non-self (paradigmatically through the immune system) and a strategic assemblage of heterogeneous biotic components held together in a reproductive politics of genetic investment. (*Primate Visions* 177)

She concentrates on the ways in which biotechnology constructs bodies entangled with biological networks. In addition to transcending boundaries of the natural body, the term cyborg is of utmost importance in questioning the boundaries of race, sexuality, gender and identity. The cyborg also aims to annihilate the “leaky distinction between animal-human (organism) and machine” (Haraway, “A Cyborg Manifesto” 274). They all merge into one another, forming a tight kinship amongst each other. In such a posthuman landscape, the cyborg metaphor proposes that the categories between organism and machine, natural and artificial are breached, social reality and science fiction become coterminous while nature and culture melt into each other. It also connotes a world where coupling with certain tools and devices that can provide bodily transcendence is no longer a utopic/dystopic dream/nightmare. In the following decades, Haraway’s cyborg figure has inspired many scholars to further theorise and discuss the term in expanded cultural and technological contexts.

For example, in their introduction to the *Cyborg Handbook* collection, “Cyborgology: Constructing the Knowledge of Cybernetic Organisms,” Chris Gray, Steven Mentor and Heidi J. Figueroa-Sarriera focus on the proliferation of the cyborg figure, and categorise different types of cyborg technologies. First, they state that cyborgs can be “restorative” in that they can replace the dysfunctional parts, or compensate lost organs or any limbs. Secondly, cyborgs can be “normalizing,” in that they can “restore some creatures to indistinguishable normality” (3). Thirdly, cyborgs can be “reconfiguring” in that they can create “posthuman creatures equal to but different from humans, like what one is now

when interacting with other creatures in cyberspace or in the future, the type of modifications proto-humans will undergo to live in space or under the sea having given up the comforts of terrestrial existence” (3). Lastly, they can be “enhancing” which, from the point of the collection editors, is mostly the purpose of military and scientific researches. With their “restorative,” “normalizing,” “reconfiguring,” and “enhancing” features, cyborgs serve as a critical posthumanist tool to generate new possibilities and ways of thinking beyond binary oppositions. In this sense, the authors claim, cyborgs signify a significant posthuman transition “from a world where distinctions between human and tool, human and machine, living and dead, organic and inorganic, present and distant, natural and artificial seemed clear (even if they weren’t) to the present, where all of these distinctions seem plastic, if not ludicrous” (5). These categorisations are primarily explored by science-fiction writers who focus on the multiple functions of cyborg technologies. Holding a significant place among them is Justina Robson, a prolific female science-fiction writer. Her 2007 novel *Natural History* is populated with the representations of cyborg bodies whose functions vary.

In *Natural History*, Justina Robson depicts a posthuman world where human beings have mastered bio and nanotechnology in creating enhanced humans, referred to as “the Forged,” who transcend the bodily limitations and manage to travel beyond the solar system, becoming fit for survival in outer space. In order to be successful at its venture, humanity has applied genetic, nanotechnological and cybernetic technologies to create new forged configurations that can adjust well to living in alien environments while those who are not enhanced, called the Unevolved in the novel, cannot. Justina Robson’s *Natural History* suggests that the bio-engineered Forged entities are actually human in biology, and have human consciousness and reasoning faculty; but they inhabit mechanically designed bodies merged with human and animal cells. Their appearance, however, has been dramatically altered in a way that they can no longer be called human. In the traditional sense, because they are so genetically modified that they become posthuman cyborgs with mechanical and biological parts. The Forged significantly attest to what Haraway dubs as cyborg subjectivities, which are not contained and obstructed within the limits of the human body. In her explanation of the newly emerging cyborg subjectivities, during an interview with Hari Kunzru, Haraway states that, “we’re talking

about whole new forms of subjectivity here. We're talking about seriously mutated worlds that never existed on this planet before. And it's not just ideas. It's a new flesh" ("You are Cyborg"). Thus, as new cyborg subjectivities, the Forged stand out as alternative ways of conceptualising what we know as human today.

In addition to its focus on various critical posthuman configurations, *Natural History* includes other posthuman features as well. To support this view, one of the reviewers of the book, Philip Snyder posits that *Natural History* not only explores bio-engineered augmented human forms, but also it "offers instantaneous space travel . . . a breathtaking spin through the wonky physics of 11-dimensional reality, and human minds that can access, within femtoseconds, billions of databased papers on the lyrics of Don McLean's 'American Pie'" (27). This posthuman world Justina Robson fictionalises is thus crafted by nanotechnology, which is a viable means to facilitate a mélange of different embodied formations, psychical transformations, expansion of consciousness, human-technology amalgamation, extra-solar journey, and artificial reality, in illustrating "the complex interface where science and science fiction bled into one another" (Milburn, *Nanovision* 269). Colin Milburn argues that nanotechnology is an important participant in fabricating "new fields of embodiment and facilitate our posthuman becoming by envisioning a future where the world and the body have been made into the Stuff of science fiction dreams" ("Nanotechnology" 124).

In a move towards a reconstruction of cyborg subjectivities and bodies, thus, nanotechnology as "an integral part of current and future cyborgizations" (Gray, *Cyborg Citizen* 181) emerges as one of the ideal means of observing "[t]he possible parameters of human subjectivities and human bodies, the limits of somatic existence" (Milburn, *Nanovision* 28). Among all complex technoscientific disciplines, nanotechnology, as an active "instrument of posthuman engineering" (Milburn, *Nanovision* 51) deconstructs the essential human subject and galvanises the future of myriad human-machine assemblages. In this regard, Milburn avers that nanotechnology is a "site of such cyborg boundary confusions and posthuman productivity, for within the technoscapes and dreamscapes of nanotechnology, the biological and the technological interpenetrate, science and science fiction merge" ("Nanotechnology" 114). Nanotechnological vision

thus invalidates “the boundaries and the configurations of the human body” (Milburn, “Nanotechnology” 124) by reengineering it constantly as posthuman bodies. Nanotechnologically blended posthuman bodies, as Milburn continues to argue, become “individuated experiences of embodiment in an endless array of possible bodily conformations, where all borders are fair game” (“Nanotechnology” 124). So, nanotechnology offers an unprecedented way to conceptualise our bodies, identities, technologies and our relations with the other organisms.

In *Natural History*, where nanotechnological influence is profoundly felt, humanity is mainly categorised into three forms. The first group of humans is Unevolved humans, who are sometimes referred to as “Humanaforms,” or “Old Monkeys.” The second group of humans is the Forged ones, who are augmented humans via incorporation of machinic components as well as animal genes. Then, we have the third group of humans consisting the least privileged type of humans called the Degraded, for they are a deviant and an unnatural bodily form of the Forged. The first group of humans, Unevolved, is naturally-born ordinary humans who are made fun of as old monkeys in some situations. They remain on Earth and struggle to maintain their supreme authority and position at the top of the social hierarchy. To be able to compete with the Forged, some Unevolved humans use MekTek, “principally an Unevolved product – the brute cybernetics of machine and AI spliced to their feeble bodies and brains to enhance capacities too eco-precious to have been butchered together like a Forged mind. And too small to cope with a Forged consciousness” (10). For instance, the main characters in the novel, Zephyr Duquesne and Anthony are both Unevolved humans, but while Zephyr Duquesne does not opt to augment herself via the MekTek implant in her body, Anthony delicately incorporates it into his body and his mind, which allows him to augment his intelligence via artificial intelligence. This way, intelligence, he manages to collect communicational data even if the data is hidden, absorbs them and then interprets them. After he reads and interprets the information, he “blink[s] as the several AIs running alongside his natural mind finishe[s] communicating with him” (28). So, under the skin of his head, he has silicon and metal, which enable him to communicate with other artificial intelligence technologies.

When Anthony introduces himself to Zephyry Duquesne, quite attracted by his appearance, she describes him as “one of Gaiasol’s military top dogs – a curious man, who was not Forged but an adapted Unevolved human, capable of belonging to either side, or neither” (38). This suggests that he epitomises a posthuman subject, challenging the Forged/Unevolved separation by calling the instability of the categories into question. He may not be genetically-altered, nonetheless, his bodily entanglement with technologies problematises his naturalness that results in his appearance as boundary-breaking and fluid cyborg subject. In a manner similar to Anthony, another character General Machen incorporates MekTek technology to enhance his skills and modify his body. Through the incorporation of MekTek technology, he can compensate for limitations of his Unevolved human body. But, he is not reengineered from numerous different human and animal genes, hence, he has frailties and vulnerabilities. His skin, for example, is the

colour of cheap white plastic that’d been exposed to too much heat and had browned to the verge of disintegration. The General was so small, too, smaller than Zing’s spacer frame with its overgrown bones. He was like a toy that Corvax might use for demonstrating the features of basic biomechanics to one of his patients who’d come in for a change. (194)

With the implanted set of MekTek technologies on his Unevolved body, Machen can still appear human and act like a machine, but he always remains inferior to the Forged humans.

The second group of humans, the Forged, epitomise posthuman consciousness and bodies in their embodiment of biological organism and mechanical components. As William S. Haney II elaborates, because posthumanism “envisions a biology/machine symbiosis that will promote this extension by artificially enhancing our mental and physical power” (vii), the Forged are typical posthuman entities. Their bodies are made up of both organic and cybernetic components, human DNA and DNA of other different species making them quintessential cyborg bodies. This combination of biological and mechanical parts recalls Haraway’s claim that “no objects, spaces or bodies are sacred in themselves; any component can be interfaced with any other” (“A Cyborg Manifesto” 163). The Forged thus embody Haraway’s idea that “[t]here is no fundamental, ontological separation in our formal knowledge of machine and organism, of technical and organic” (“A Cyborg Manifesto” 177).

Invoking Donna Haraway's cyborg bodies, The Forged also represent what Donna Haraway calls "three crucial boundary breakdowns" the cyborg image entails. In the first one, "the boundary between human and animal is thoroughly breached" ("A Cyborg Manifesto" 274). The proliferation of mixing human genes with animal genes in the Forged dissolves the line between humans and animals. Haraway's "second leaky distinction is between animal-human (organism) and machine" ("A Cyborg Manifesto" 274), which characterise the Forged as well. Last "distinction is a subset of the second: the boundary between physical and non-physical is very imprecise to us" (274). Haraway later emphasised that cyborgs exist when especially "two boundaries are problematic: 1) that between animals (or other organisms) and humans, and 2) that between self-controlled, self-governing machines (automatons) and organisms, especially humans (models of autonomy). The cyborg is the figure born of the interface of automaton and autonomy" (*Primate Visions* 139). The Forged in the novel signal the "crucial boundary breakdowns" between animal/human, human/machine/animal," complicating the long-established dichotomies between human/animal and human/machine/animal and thus becoming cyborg bodies, as they are composed of both cybernetic features and organic parts. This is why the Forged as augmented beings "are a new branch: distinct from *Homo sapiens*" (57). Being genetically designed, they become quite suitable for particular jobs and purposes in coercive environments.

One of the very fundamental reasons for the bodily modification of some Forged is to be able to endure space conditions and to be able to live there. This recalls Manfred Clynes' and Nathan Kline's original formulation of the cyborg figure, who had initially introduced the idea of human-machine integration for space exploration. Therefore, some Forged are exclusively manufactured for space travel and for the adjustments to its alien environment, befitting the Clynes' and Kline's idea of the "augmented man." On the other hand, the Forged, at large, by forming the "tight coupling" of technology and flesh, and embodying different species together, emerge as Harawayan hybrid cyborg figures.

Within the futuristic and critical posthuman context of the novel, where the advancement in bioengineering has come to a point of enabling to manufacture a variety of enhanced

life forms, the Forged as David Lagford meticulously examines them, have unique personality traits. They act based on

the oft-repeated principle of Form Follows Function: air and space shuttles (Passenger Pigeons and Heavy Angels respectively), relativistic interstellar probes, deep-sea and gas-giant dwellers, brainy hive communities, a plethora of more and less avian forms (we have *always* wanted wings), monstrous terraforming entities now filed away in suspended animation because there's no more 'Gaiiform' work left for them in the system. (40)

As it can also be drawn from the quotation, the Forged come in many different and various hybrid forms. Most of the Forged are animal-human entities. They are hive-minded insects, arachnids, or avians enhanced with mechanical parts that render them posthuman hybrids. This posthuman world is also populated with other types of Forged who can terraform the Moon and Mars as Gaiiforms. Besides, there are artificial intelligence cyborgs like Roach and the Hand. So, the world of *Natural History* consists of different classes of Forged forms: they are “variously reptilian, insectoid, corporeal presences, projected avatars, enhanced, defective, born, made, and multiple combinations of the above” (Synder 27).

Despite the multiplicity of forms, one of the significant posthuman cyborg bodies, and perhaps, as the story gradually develops around her, is Isol Voyager the protagonist of the novel. She is basically a living spaceship on a long journey mission in outer space exploration. To withstand the vacuum in extra-terrestrial circumstances, her body is in the form of a spaceship and she becomes a transgressive female cyborg figure. Apart from embodying cybernetic parts with metal sensors implant, her body is comprised of both animal genes and human DNA. In describing Isol Voyager's body, the Unevolved archaeologist Zephyr Duquesne resembles it to “nothing more than a piece of stranded sea-junk: an assembly of spars jutting from a central core of black hide that was knobbed with peculiar outgrowths and pits” (133). Despite having “tailfins” and being loaded with fuel, she considers herself human, yet different. She believes she is “made too well” (164). Like Haraway's description of a cybernetic organism, she is a “fusion of the organic and technical forged in particular, historical, cultural practices” (“A Cyborg Manifesto” 181).

With animal and human genes, and mechanical components, Isol Voyager is a typical representative of a posthuman cyborg body. Sharing this viewpoint that Isol vividly illustrates the emerging notion of the posthuman, Kaye Mitchell states that Isol

finds her “self” entangled with ocean creatures like the octopus, sharks, and whales. This is what makes her radically posthuman. Isol is shaped by technological and biopolitical forces as effectively as evolutionary ones, and this is not an ultimately distant issue from our own posthuman reality, with possibilities opened up by biology and technology. (289)

As this quotation clearly shows, through her entanglement with other organisms Isol is transformed into a posthuman hybrid form. In a way, she literalises Haraway’s cyborg figure with her hybrid nature.

Isol Voyager’s cybernetic components enable her to withstand the hardships in space and many other difficulties she might face during her deep space exploration. Her biological parts, on the other hand, can cause her to get hurt, and severely bleed. In the very beginning of the novel, for example, she collides with a big debris cloud in space and is seriously injured after this collision:

her body was failing. The damaged sailfin wouldn’t eat any more, wouldn’t feel the soft breath of the solar winds or the hard blast of her reactor output. The drop in radiation made her feel a cold foreboding that was more than a physical chill . . . Slowing, she maintained course along the thread of light towards Barnard’s Star. Everything about her ached with regret and fury at her hot headedness. Now she would drift until she died, for there were no stars close enough to supply sufficient energy to solve her shortfall. Barnard’s Star was to have been the first of many stops. (4)

Gradually bleeding to death, deep in space, she encounters an eleven-dimensional alien artefact, labelled later as the “Stuff,” which makes the boundaries between time, place and the self obsolete.

Startled, Isol watched its approach. She slowed again, bleeding energy, and it matched its approach speed with hers. She used the last of her reversing thrust to halt and the artefact came to rest when there were only a few metres between them. It was not as large as she had first thought; really almost a match for her own size, a small thing. She could see it very clearly now: it was quartz – silicon dioxide – but so fractured and pitted on the surface that it was utterly dulled. It had no visible means of propulsion. (7)



Having been looked at closely at the lab, what the Stuff is constituted of silicon-dioxide: “silica, quartz, rock, sand” (Langford 41). With no visible mechanism to indicate how it runs, it appears to function in branes, transcending four known dimensions the Unevolved live in.

Through placing this newly discovered entity into her bodily cavity, Isol Voyager realises that it heals her wounds and stimulates her fast recovery. Most importantly, she apprehends that she gains the ability to transcend space time, thereby can move beyond limited dimensions with this artefact. Since this Stuff enables her to transport instantly to other planets across space, which Isol Voyager thinks is due to its “FTL” (faster than light) capability with its functioning jump-drive, it gives her the idea to find a new planet hospitable and suitable to live for the Forged. Isol Voyager believes that the Stuff is constructed on a highly technologically advanced planet called Zia Di Notte. Transporting herself to the homeland of this alien Stuff, she notices some abandoned buildings and some traces, probably belonging to an undiscovered alien civilisation, or a home of an extinct culture, which can lead the Forged to their salvation from the Unevolved’s domination providing the Forged with a new home.

As a Forged cyborg being, Isol Voyager has multiple skills that far supersede the skills of the Unevolved. For example, she “could process memories at fifty times the speed of an Unevolved human and have it feel like real time” (3). Also, her visual sensors are “a complex knot of radar, photo and radio, capable of 360-degree awareness” (133). In addition to her cognitive reasoning and advanced memory, she has a talent in music, too. She can “play her music at far greater speeds without losing any nuance; Earth’s entire repertoire took only two years to listen to, end to end – more than enough time to find favourites and make lists and endless recombinations of accompaniment to the cacophony of the universal radio” (3). However, Isol Voyager does not know how to resolve a problem before it is already too late since “[t]wo femtoseconds wasn’t even enough for the brain to make the first connection towards starting a gasp – if you had lungs” (3). She is a sole Voyager

nothing more than a desire to travel and meet new people fused onto a psychopathic preference for no company at all. That includes family ties, of which they have none whatsoever; no loyalty, no philanthropy. She has a strong mind, with single-tracked convictions based on ideals and theories, but no experience of a living social world.  
(11)

Despite her problems, Isol can survive on her own without requiring anybody's assistance or company. Zephyr Duquesne points out that she does not need any kind of affection, sympathy, or care either. Yet, despite being a loner not needing any emotional or physical sympathy or affection, Isol "must still fit the parameters of what constituted a human personality" (163). Since she is specifically programmed to be as human-like as possible, she becomes self-sufficient, ambitious and also a free thinker. Zephyr Duquesne notices that these are the qualities that make Isol Voyager "unrecognizably human as the most extreme class of Forged that [she] had seen in her life. What surprised her most was how small Isol was" (133). As she is also determined and strong-minded, Isol can easily resist the will of the Unevolved and dare to challenge their authority.

Isol Voyager wants to break free from the Unevolved domination, therefore finding a seemingly habitable planet for the Forged is a way to liberate the Forged: "The rebellion in her against the Earthbound ancestors, which had previously been a burning vision strong enough to fuel her through anything, exhausted itself – so much so that she longed for a sight of the planet now, blue and green and white, afloat on its prosaic round" (5). To her aim, she contacts other revolutionary Forged beings to join her, and asks them to come live on this newly discovered planet with the Stuff. She attempts to spread the word of freedom to the Forged and says: "A future of self-development, free of the bonds of Form and Function . . . free of the self-serving interference of the Unevolved" (162). First, she contacts Corvax, a Roc Handslicer Forged, another epitome of a posthuman cyborg body, in order for him to examine the Stuff, which can possibly help him create a better virtual reality than they know named as Uluru.

Corvax is a very worn-out Forged, who seems to be running an illegal laboratory and uses MekTek implant illegally on his body to experiment its limits. By means of MekTek technologies incorporated into his body, he can analyse the dreams of others. This Dreamtime for Corvax turns out to be "a medium for looking backwards in time to

humanity's older minds" (110), and whenever he gets a chance, he watches the evolution of consciousness of human beings in time. Corvax is accompanied by other Forged beings, Labhive and an insect TwoPi, who assist him in the laboratory to discover what the Stuff can be used for. Isol Voyager also contacts Ironhorse Timespan Tatresi, a leader of the solar Transport workers Union and another important member of the Independence Party. By placing an emphasis on the importance of liberation, he states that although the place seems abandoned, "we can learn, and liberate ourselves from the bondage of Form and Function, if we study what they've left behind" (49).

So, it seems that the discovery of the Stuff interrupts the long-lived Unevolved domination over the Forged and their existence in this hierarchical system. After returning to Earth from her exhausting journey, Isol Voyager stakes claim on the place. She wants it to be a "promised land for the Forged" (43-44). Represented by General Machen and Anthony, the Unevolved military, very interested in this advanced technology it embodies, consider giving permission to colonise new planet possibly suited for the Forged. First, they need to examine the planet. For this end, they propose sending one of their representatives to get further knowledge about this planet, as Anthony says:

We can send an investigator . . . That must be the first step. We can't rely on Isol's testimony, not with the engine in such intimate contact with her. She claims she's the only one to have reached this planet, so she can carry a representative of ours back with her. It would only require some minor adaptation: a Hand, perhaps. (29)

General Machen, fearing that denying the Forged the opportunity to live as autonomous beings away from the Unevolved can lead to a civil war, wants Isol Voyager's claims regarding the existence of this planet to be verified by a professional. Ultimately, for that purpose, Isol chooses the Unevolved archaeologist Zephyr Duquesne who can unravel the mystery behind this object and bring forward important information. With the assistance of Zephyr Duquesne, the Unevolved aim to acquire the knowledge whether this planet is real or virtual, as well as habitable or alien.

Zephyr Duquesne, hired to investigate the factuality of Isol's claim of the discovery of a new planet, is thought to be the expert in the field of ancient civilisation, and therefore is chosen to inspect the new planet to find out if it is appropriate for colonisation. As a

professor of cultural archaeology, Zephry Duquesne's specific area of research is indeed "[t]he speculative construction of the language and lore of ancient civilizations, working backward from physical evidence and fossils in the linguistic and intellectual records" (39). Therefore, her expertise will be equally ideal to probe and analyse whether there existed any previous civilisation on the planet Isol discovered. Besides, whether this planet is suitable to live on or not, the possibility of the danger it might pose is another issue discussed at the meeting the Unevolved hold before the investigation begins. Since Isol's contradictory statements about the engine technology she encountered casts doubt in the minds of the Unevolved as to whether this planet is the "homeworld of the aliens who had produced this engine technology," it is Zephry Duquesne who can "piece together anything from the wreckage of a dead society" (53). What the Unevolved seem to be concerned about is the conflict it can raise and the possibility of a civil war among different types of humans. Voicing this concern, the minister concedes, "if her [Isol's] claim is legal, then this could be exactly the spark the Forged have been waiting for. It could mean civil war" (45). As a response to him, the Unevolved Strategos Anthony, who is in the investigation team, calls attention to the possibility that rejecting them can also lead to a civil war. He says, "if you don't accede to their demand, it could also mean civil war" (45). He later recommends: "We have to investigate the substance Isol claims is her engine, and also the planet she has been to, if she's been to one. If the material is alien, then we have to consider a quarantine. If the aliens in question are still alive and kicking, we have to prepare for conflict with them" (29). Therefore, to prevent the potential war and escalating conflict as well as to take necessary caution for the possibly misleading information provided by Isol Voyager, the Unevolved believe Zephry Duquesne is perfectly fit for the job. The Unevolved Anthony explains to Zephry Duquesne what the Unevolved expect her to do:

We don't intend you to come up with theories about the technology or the planet and its system, or any of that . . . And we're reasonably confident there'll be no great meetings, either. Whatever this world is that Isol knows – virtual, faked or real – it is comprehensively dead. And that puzzles me, . . . You saw the views. No clear sign of catastrophe, but no life either. Something that may be a civilization in ruins, without survivors, nothing. Not a single cell. But oxygen is there in quantities that suggest there must have been life very recently, or at least organic processes sustaining its existence. (52)

In order to legitimise her cause, Isol Voyager brings a picture with her of this wholly deserted place. From the detailed picture, what becomes evident is that “there is clearly oxygen in the atmosphere, up to a half Earth normal, but from Isol Voyager’s data, there appears to be nothing living down there. Chemically, that is an absurdity unless the life was there until very recently and has now gone” (44). This place appears to be “arid, stony and barren, for all its water . . . Moon stations, planetary cities, towns, settlements, industry – if that’s what any of it is. Empty” (44). Despite no visible life form flourishing there, Professor Zephyr Duquesne’s curious mind wonders if at least there are plants which can give her a clue about other forms of life. Finding the curiosity appropriate to unravel the mystery of the planet, General Machen responds: “Considering the time of the alleged alien disappearance, even if they took all the life with ’em you’d expect to see some recolonization by now. Granted there’s been no surface sampling, so we don’t know if the planet’s seas are hosting some kind of bacterial forms” (45). Therefore, despite the fact that the place seems totally abandoned, they want to investigate what is left from the previous race and the ruins of their civilisation because the settlers seem to be “self-adapters” and could get a hold of more advanced engine technology.

When their expedition ends towards the end of the novel, Isol Voyager finally understands that this Stuff will not give freedom to people but another form of slavery. Not believing in the promises of independence and ultimate freedom from the Earth-bound humans that the Stuff will presumably offer, she sets out to persuade the Forged that the Stuff will only cause enmity among classes and will bring an end to humanity. Zephyr Duquesne predicts that she will harm humanity if she transforms herself back to Earth by using the Stuff. Therefore, she decides to sacrifice herself and chooses to stay on this planet. By means of their sacrifice, it seems that the possible outbreak of exasperated conflict among the various forms of humanity is prevented.

The end of the novel regarding the future of Isol Voyager and Zephyr Duquesne is rather obscure. The reader is not well-informed about what happens to them on this newly discovered planet. What seems clear, however, is that Justina Robson prefers an open-ending whether they are transformed into a new type of posthuman entity in the alien world or they die is left to the reader’s imagination.

Although Isol is the central figure, there are other posthuman cyborgs that need equal attention. One of them is the Forged Pangenesis Tupac Tatresi. She was the first of the Forged to be manufactured. It is made explicit in the novel that Tupac Tatresi is the very quintessential cyborg figure:

an enigma: machine, animal, plant, person. She ate sunlight. She supported life in her flesh and redigested what carcasses came with equal enjoyment and care. She breathed energy. She vented nothing, a perfect recycler, losing only surface cells and crystals to the casual punishment of spaceborne micro-debris. A solar storm of a magnitude to fry anything closer than Venus delighted her, the bitter dark of sunlessness made her philosophic. She was the voice that spoke, the touch that consoled, the knowledge that hurt, and the punisher who deprived, who directed, who demanded and praised. She was their body and their parents and their friend. She was everything to them, when they were young. (60)

This clearly indicates how Tupac Tatresi is the embodiment of a cyborg body. Breaking down the gender and place boundaries, she is both “the god and goddess of all places, invisible, omnipresent” (110).

Tatresi is a palpable example of the cyborg bodies of the Forged that are not constrained with fixed boundaries. As can be seen in her body, their bodies are flexible, changeable and easily adapt to compelling environments. They can take wings out and put them back whenever they want, and they can also use their avatars when they do not actually want to be physically present. Tupac Tatresi uses a non-gendered human avatar to strongly establish its “wisdom and authority” (Mitchell 119), to blend with the others in appearance and characteristics: “It was a very tall human the colour of blue slate, with no body hair at all, dressed in a white waist wrap somewhat like a toga. Its wrists were banded with silver and gold decoration and its bald head radiated a very faint white light-its nominal halo” (93). Therefore, she can be present and non-present at the same time as she transcends spatial limitations and blurs the lines that distinguish reality from simulation. Tupac Tatresi represents cyborgian fluidity, existing also at several different places at the same time.

Although referred to as the “blessed Mother-father,” her being the creator of all the Forged and regenerating new Forged babies, makes her more closely affiliated with the

female sex, even if as a Forged entity she is not endowed with natural reproductive systems, and cannot naturally give birth to babies. In this world, “neither feminine appearance nor an ability (or desire) to reproduce are necessary or sufficient conditions of femaleness” (Mitchell 118). Still, Tupac Tatresi can engineer new cybernetic organisms using human DNA. Working as an incubator and being a Forged mother, Tatresi can bear thousands of cyborg children using technology and human DNA, but, she does not have any close relationships with any of her offsprings. In fact, by having both male and female features Tatresi appears as a hermaphrodite, which evinces that she embodies salient features of a posthuman body. Relatedly, Chris Hables Gray argues that “[c]yborgism could well be a bridge to different types of posthumans, some with male bodies, others clearly female, others yet who are hermaphrodites, and still more people who will be quite genderless. And there will be new sexes” (*Cyborg Citizen* 159). This explicitly invokes Haraway’s vision of the cyborg without gender boundaries, because like the cyborg figure, Tupac Tatresi brings a challenge to the idea that gender is natural and something that is fixed. Calling this gender discrimination a “hegemonic practice,” Haraway avers that “[g]ender, race, or class consciousness is an achievement forced on us by the terrible historical experience of the contradictory social realities of patriarchy, colonialism, and capitalism” (“A Cyborg Manifesto” 276). For Haraway, a cyborg figure cannot be defined by gender boundaries because gender, as a social and cultural production, puts subjects in unequal relationships in which one attempts to subjugate the other. In that, Tupac Tatresi is a significant character who helps us envision the world without gender.

There are also AnimaMekTek creatures like Ironhorse AnimaMekTek Pigeon that is an animal-machine-human hybrid with “graceful tail like a gigantic airborne manta ray” (64). They are used as “small helicopters and robotlifter flights” (64) and carry passengers in their bodies, forming bodily entanglement with them. It is described in the novel that AnimaMekTek classes are among the more straightforward cyborg hybrids . . . Part animal and part machine . . . Human brains assume the management of both systems. The rarity of the Pigeon lies in its cross-environmental engineering . . . It’s a marine-style form in an aerial world. (37). Ironhorse AnimaMekTek is a female cyborg body and like Tatresi, she carries babies in her womb. Another AnimaMekTek, Passenger Pigeon

Aurora places Zephyr Duquesne inside of her own body to take her to certain places. For Zephyr Duquesne, Pigeon is the most beautiful Forged with one eye that she has ever encountered.

By portraying numerous different types of Forged who optimise their skills in compelling jobs due to their embodiment of both genes of different species and technological parts, Justina Robson directs our attention to the question of to what extent they should be recognised as human. Despite being human in origin due to their human genes, the Forged are “designed and fabricated to lead lives of restricted experience and social deprivation in comparison with the hominid [Unevolved] populations” (117). It is imperative to note that although the Forged can often pass for natural humans in consciousness, they are wholly posthuman constructs hardwired to behave in a certain way and function well in a single difficult job, which they can surmount with their technological parts.

To give an example that hinges upon the humanness of the Forged, Corvax requests to put on a human avatar before he enters Uluru, yet Tupac Tatresi reminds him that he is already considered human. However, throughout the narrative, it becomes clear that though they exhibit human characteristics, such as having human consciousness and emotional responses, the Forged can never attain full access to humanity and equal human status in the eyes of the Unevolved. The reader is given the impression that the radical modification of their bodies mostly undermines their status as humans. To subjugate their notion of humanness, throughout the narrative, the Forged are unequivocally dismissed from the status of the human and are labelled as “creatures,” “monsters,” or “machines.” Their cyborg bodies as animal-human-machine hybrids are regarded as objects of physical power and strength for compelling jobs. Contemplating the reason why they are divorced of humanity, Zephyr Duquesne subtly underlines our essential biases with respect to what constitutes the human. As it is pointed out in the novel, “Zephyr didn’t know if it was lack of imagination or a more deeply coded bias that made it so, but so it was, and no amount of carefully worded denials could make it otherwise” (55). In spite of her respect towards the Forged, even Zephyr Duquesne often forgets about that she is inside of the body of the living entity when Pigeon is flying her and starts kicking her shoes, throwing them around, leaving a biscuit wrapper, and spilling tea as though it is



not the body of an enhanced human form she is in but in her private room. Still, Zephyr Duquesne recognises emotional sensitiveness that insinuates very close resemblance to humanness. To her mind, “[o]ne thing the Forged hadn’t lost out on was their emotional heritage, although frequently that had been tinkered with too many various ends. Some said it was the only thing made them human at all” (40). Despite this, she points out that for some others, especially political activists, the Forged are “the slaves of the modern age” (31). She states that “slaves are people who do not exist legally. They are also people whom one does not need to care about as if they were real. They are expendable and insignificant” (55). Like the slaves in Roman times who “laboured under the gaze of their masters, working on the floors of a house, laying paving slabs over the carefully judged pillars of a hypocaust,” (31) the Forged are expected to serve their masters, that is, the Unevolved. Zephyr Duquesne explains their very existence in life: “All the Forged had originally been created for work of specific kinds, all of it serving Old Monkey in some way. Their devotion to Form and Function as a sustaining faith was an adaptation to their lives as sterile workers (39). However, like humans they have emotional responses and cognitive abilities that complicate their status as machine hybrids. As one of the Forged cyborg bodies Trini puts it, they are “made, but aware” (242). They have “human minds:”

Despite our physical differences, . . . we have human minds. Not necessarily all the same, nor even structured the same way mechanically, biologically, but in our identities and the very design of our consciousness we are all bound in the human mould. Even those of us with enhanced intellect, or greater memory, or superior sensitivity to all kinds of stimuli both within and without, are not significantly different from this fundamental paradigm. (137)

They are smart, cunning, intimidating and can be manipulative too. For instance, the reason why Isol Voyager particularly chooses Zephyr Duquesne to investigate the reliability of her claim is not because she is mainly very qualified but because she thinks Zephyr Duquesne is easy to convince and manipulate. The Forged have the consciousness of the natural type of human, yet their bodies are mechanical, so they operate like cognitive machinery. Their cognitive functions make them perfectly well-suited for the cyborg bodies, because the cyborg image is not only a literal combination of the flesh of the body and technology, but also it is a figure of reasoning and thinking beyond conventional ideas. The cyborg, therefore, is the expansion of the distinctive features of

human faculty by means of nonbiological tools and aids. It does not just open itself to the intrusion of complex technology, it equally opens itself up to merging mental activities with artificial intelligence. Justina Robson's novel also calls attention to the question of whether the cyborg entities can completely replicate a normal human brain and outsmart normal human beings.

Since the Forged currently demand their own place distinct from Earth and the Earth-bound Unevolved humans, the debate over whether they should be granted a right to reproduce artificially is discussed among the Unevolved. Zephyr Duquesne seems to side with the idea but she does not want to provoke some negative reaction: "The right to reproduction for the Forged was the hottest topic of the year and as an Unevolved, a person of ordinary birth and what passed for normal human genes, Zephyr was well aware of the varying weight her words might carry when placed in particular ears" (40). She further questions whether the Forged have the capacity to fall in love. She understands later by means of the explanation provided to her by Isol Voyager that in order to make them loyal to their sense of duty and seek to accomplish their job by working hard and with love, their capacity to love and desire are not taken away from them. Isol says, "I believe they [the Unevolved] tried to inoculate me against it [love], but it would have spoiled my very keen sense of loyalty to Earth" (164). So as to instrumentalise her augmented capabilities as a cyborg body to the fullest like a perfectly functioning machine, she is endowed with the capacity of love. Nevertheless, throughout the narrative we never witness Isol feeling any kind of fondness or love towards anyone, nor interacting in familiar human terms. This maybe one of the reasons why these posthuman beings are exposed to discrimination, as made clear in the following:

The Forged resentments of her [Zephyr's] kind were often justified – the Old Monkeys didn't like the reality of interaction with Forged, and explained away their bodily repulsion with chat about how difficult it was to really interact with people of such different appearance and experience. Underlying all of this was the acute embarrassment at Unevolved complicity in the destiny of every Forged citizen, designed by intellect and not evolution, made on demand, not born by grace. (124)

As this quotation indicates, being fully human is obviously contingent upon how one comes to life. Intermittently reiterating the humanness of the Forged, Isol Voyager declares that the Forged are "*people* . . . made or born. Not sentient machines. Not AI like

some ridiculous Abacand” (131). The fact that these Forged beings are made on demand justifies the mis/treatment of the Unevolved. Their instrumental value to be exploited comes to an end when their functionality is no longer needed. Since they are designed for one exact job only, when that job no longer continues, they become obsolete and put into hibernation. Such a case is observed with the Gaiaforms who were once very useful in terraforming Mars and the Moon and mainly ruled and controlled by a single mind and same personality. As poignant examples of cyborg bodies, they are “behemoths of metal and flesh more than five kilometers wide – and that wasn’t even counting their Arms, Hands, Feet, Legs and other appendages clinging with insensible grip to the platform’s meagre scaffold” (46). They were “monsters of another era, capable of moving mountains, drinking seas, planting continents, exhaling entire weather systems” (46). In another encounter, Zephyr Duquesne learns that the Forged are also

capable of gene sequencing from all known plant and some small-animal genes. Internal development up to adult stages on all forms; Feet, Fingers and Toes develop soil by crushing rock and admixing with silts, clays and minerals, before introducing classic cocktails of bacteria, fungi et cetera and mulching with its own dead skin and excreta to produce viable medium for continued plant growth. (126)

When they complete their tasks, despite being promised to be given further jobs, they were “iced in space, asleep in the heavy, dreamless limbo of virtual death, their bodies folded, stowed, inert save for the occasional feeble pulse where hearts the size of factories had once pumped the bellows of creation” (46). Since the Forged are programmed to move intermittently based on their form and predetermined function to fulfil vigorous jobs, if they do not start moving within a couple of hours, their bodies gradually decay as their immune systems start to eat away their immobile tissues. The potential vigour to change the purpose of their creation and bodies is also hampered as they are bound to live with their designed bodies. Their relationship is not a symbiotic one with mutual benefit between groups. Instead, it is such relationship in which the Unevolved take the advantage of the Forged, despite their ultimate strength and capability. In appearance, thereby, the Forged can surpass the capabilities of the Unevolved, yet they have to serve them as they are created by them. This unbalanced power distribution instigates the Independence Movement among the Forged. Thus, “their [the Forged] devotion to Form and Function as a sustaining faith . . . an adaptation to their lives as sterile workers” (29)

has become irrelevant and the desire to make a new beginning in their own homeland starts to gain momentum. One of the members of the Independence Movement in the group, by quoting Karl Marx points to the inequality between the Forged and the Unevolved:

Forged were never designed to be merely sentient machines in the way that so many of them seem to delight in thinking, in order to fuel their anti-hominid fury. Wasn't it the case that human society in the past has always been divided between those who manage and those who labour? Some division of labour must exist to get the job done at all. Society has never been homogeneous. Herculeans cannot fly. Hominids cannot survive space. (117)

As an outcome of their subjugation for so long, the Forged seek to gain a sense of autonomy and claim personhood. Their adamant assertion for emancipation and individuality reassure their humanness. As a consequence, they initiate the Forged Independence Movement, of which Tupac Tatresi as their blessed mother is a significant advocate. In one of the meetings of the Independent Party, endorsing Isol Voyager's claim for the new world segregated from the world of the Unevolved humans, she publicly announces that it is essential for "it would benefit future generations of human beings, in the Unevolved and Forged states alike, to have a homeworld far away from the beginnings of Earth and the Unevolved domination of our culture and practices" (211). Tupac Tatresi associates the Forged with the slaves and the Unevolved with slave traders: "Either Earth must grant us the freedom to pursue our individual developments and the right to pursue our own reproduction and design, equal in rights, or they must be discarded as the slave traders and commodity brokers they are" (117). For most of the Unevolved, their demand for a whole different planet like Earth does not come as a surprise as they aspire to completely break their essential ties with the Unevolved whom they consider fallible and defected. As also stated by another Unevolved, Anthony, "[t]he Forged have wanted to go their own way for a long time . . . All they were waiting for was either the discovery of a suitable system with adequate resources, or for Earth-based government to lose control of Mars and the gas giants" (39). Nevertheless, it is with the Forged Independence Movement they now claim their own homeworld only for the Forged because they consider, in Zephyr Duquesne's words,

[o]ld Monkey wasn't worth the effort any longer and began to look for their own reasons for living, it was to be expected that shedding the feudal attitude would take time, perhaps a long time if Unevolved patterns of clinging to outdated 'tradition' with its life-squeezing patriotism were anything to go by. For most Forged there was no purpose to the Unevolved any more. They were simply cranky old grannies who had to be placated and pensioned off, fed soup until it was time to die. A homeworld beyond the Sol system would be a perfect spot in which the Forged could make a new beginning and forget their origins and the experience of mingled pride, shame and puzzlement that went with it. (39-40)

The Forged start to view the Unevolved as not worthy of serving, as Serpil Oppermann argues, because "they find the human claims to superiority and governance false," ("From Material" 289). They want a new clean beginning without the presence of their original creators. Their self-determination to be emancipated resonates with their challenge to human exceptionalism. As posthuman hybrid subjectivities, they undermine the authority of humans as sovereign entities. They consider themselves the "natural consequences of an intellectual evolution" (57) and think the Unevolved are the products of "an insentient and randomly mutating natural systems" (127). Fundamentally, for Isol, the Unevolved are "an outdated sausage with legs and a brain whom she considers her intellectual and physical inferior" (58). She makes her condescending attitude rather apparent when she says: "you're fatter than I thought" to Zephyr in a misanthropic way.

In addition to the Forged, what calls equal attention in the novel is the silicon-dioxide based Stuff, which can be viewed as another posthuman cyborg entity for several reasons. First of all, it interfaces different genes, which make it a posthuman entity. Secondly, whoever is enmeshed with it can transgress rigid boundaries between self and other, the real and the virtual. Furthermore, in spite of encompassing mechanically complicated engine, the Stuff has agency and free will. What is brought into light during its analysis is that it tends to pledge various promises. The most significant one is that it offers a new world to the Forged that has a technology the Forged can use to free themselves "from the slavery of Form and Function" (150). Other than this promise of independence, this element is believed to possess clues in the transformation of humanity into other possible posthuman forms due to the advanced technology it holds. It may also open a path toward transcending mortality. In every occasion she gets, Isol Voyager tries to convince the beneficial sides of the Stuff and "broadcast [it] like the seeds of Adam among the Forged" (45). The possibility to prolong their life span with unlimited capacities triggers Isol

Voyager to convince Corvax. Her encouraging words are, “Corvax, haven’t you ever wished so hard for something? If you were dying, wouldn’t you want to survive? Haven’t you dreamed of the impossible?” (29). With the aid of the Stuff, Isol Voyager also aims to bring an opportunity to “body-shift for all Forged citizens” (57). Describing it as the “gateway to freedom” (162), she further underlines the advantages of the Stuff in its entirety: “It is the embodiment of perfect Self-Development . . . It shows us the way forward, out of the shackles of Solar DNA and the limits of the human imagination” (3). Therefore, it constitutes the key element not only because it stands for power and emancipation, but also because it can easily be regarded as a posthuman entity for its ability to transgress dimensions, time, and place.

Apart from providing infinite opportunities and unrestrained control, the Stuff could easily exasperate the prevalent conflict between the Forged and the Unevolved if the Forged hold the full possession of it. The idea that the Forged would acquire remarkably more advanced technology dismays the Unevolved. This would not only make a huge impact on the Unevolved’s claim to superiority, but also it would dramatically disrupt the hierarchical positioning. Its incompetency to distinguish good from evil, right from wrong, as well as moral from immoral also deeply concerns the Unevolved. Therefore, this posthuman cyborg figure emerges as a vastly problematic entity that brings the Unevolved and the Forged into confrontation.

Interested in this new Stuff and wanting it to be examined in the laboratory, Tatresi Tupac pays a visit to Corvax. They both adamantly support the idea that this entity can be the key to help them discover a “new extrasolar world as a place for the Forged” (25). Tatresi Tupac tells Corvax her intention of using it:

You have the facilities here to use this new substance I was talking about, alongside your MekTek capabilities to adapt the Forged. You can enhance Uluru for us all . . . And you could change my engines to enable me to take them to this other world – to take the Forged out of the rule of petty Gaiasol economics. (12)

Hence, this element, Corvax figures, will not only enable them to transcend their physical presence and enter into another dimension, but they can also transcend their psychological

functioning through extraordinarily fast healing. Curious about what can possibly happen to him, Corvax decides to merge himself with the Stuff to attain full interaction with it:

Stuff is a technology and it is also people, indivisibly fused. You could not define it, one way or another, at any particular moment. It has no consciousness as you assume individuals must, nor does it have the insensible responses of a tool – but properties of both and also neither. It is intelligent, responsive, compassionate, but it does not have an identity of its own, although it contains the fragments of many identities and is capable of creating individuals who could act and exist as ordinary people. (351)

Being absorbed by the Stuff, he discovers his material body can shape shift into any form he requests and the Stuff saturates him with different experiences and knowledge. After moving beyond his body by getting rid of his wings, he later leaves his consciousness behind for the time being and embodies the consciousness of the Stuff, as it provides the consciousness of other beings as well. Being under the influence of the Stuff, he starts to utter these words:

I am Tom Corvax. And there is no “I” – there is a greater mind, a superposition of all minds that have ever entered this state of being Stuff. These two states exist simultaneously because the mind that is Tom is here, made of this body, but the matter of this body is a part of the greater ocean of matter interpenetrated by the minds of the others who live within imaginary time, volumeless and occupying the whole universe. (347)

So, after connecting with the Stuff, Corvax learns that it is an extremely enigmatic figure, in that it is neither a person nor can it be considered to be just a technologically advanced entity lacking personality. Instead, it has agency and intelligence, integrating with other minds and individuals. Anyone who is in contact with the Stuff is captured by it. Integrating with the mind of Tupac Tatresi, for instance, he remarks, “I feel it watching me. It knows my thoughts” (186). Therefore, as a posthuman entity it both embodies organic form of life and technological breakthrough since it stimulates transportation across dimensions and transformation into various identities and consciousness. What is more, the Stuff is transparent, flowing, boundary-breaking, and always in a state of becoming. Noticing the posthuman features of the Stuff, Corvax says, “when we interact with stuff, then we are begun becoming” (287). This engenders another concern for the Unevolved. As Anthony predicates:

We have to consider if it's worth having a protracted conflict with the militant members of the Forged Independence Movement. Terrorist actions are more likely than a straight civil war . . . And if the alien engine systems and other technology become essential components of people who want to secede, then we have to make a decision on how *human* we're going to consider them in the future. (29)

This quotation deftly attests to one of the most primary questions of what makes us human within the critical posthuman discourse. They start to interrogate the essence of the human and what it is that defines them human or not human. All in all, Robson's biotechnologically-engineered Forged characters tend to complicate long-standing boundaries by travelling across planets, embodying different genes, and performing different genders and sexes.

In addition to the Forged and the Unevolved, there is another group in the novel, the least idealised humans called the Degraded who are "the flawed forms of the socially and politically excluded 'Degenerates'" (Mitchell 116). As their name clearly evokes, they are the failed attempts of the Unevolved in designing the Forged or the product of an illegal breeding system. In brief, they are merely "production errors" (117). Being part of the marginalised illegal breeding program with no clear function, they are repulsive to other groups due to their deformed monstrous bodies. Through the emphasised statement that "all great plans had their failures" (35) in the history of mankind, this biotechnologically advanced posthuman world manages to normalise the occurrence of the accidents in manufacturing the Forged. Therefore, they are neither fully acknowledged as the Forged due to regeneration errors in their production, nor can be they referred to as Unevolved humans due to their disfigured shapes and incapacity to speak properly. From this perspective, they represent in-betweenness.

Gritter is a perfect example of the Degraded as he is described as "a wild-analogue eagle, intended to assist with the rediversification of the natural world on Earth and to act as an *in situ* scientist, but [did] come out of the mould a disagreeable, self-interested little bastard, more reptilian than he should have been and twice as scheming as the stats had originally indicated" (35). Further, one day, Gritter comes across a doggy face Degraded creature reminding him of his own self. This "illegally bred figure had clearly been intended as a pet, but had received some unexpected *in vitro* upgrading and, instead of a smart long-lived poochy life-companion for a rich old fart with no children, a monster



had been produced: human IQ and the body of a gargoyle” (118). To put it differently, the Degraded, as failures, errors, or accidents, constitute the most inferior group among all beings.

Thus, the world of *Natural History* is a hierarchical world with so much conflict among the three types of humans – the Unevolved, the Forged and the Degraded. As such, the novel displays an ambivalent attitude towards the prevalence of posthuman technology in the lives of human beings. The posthuman technologies can be beneficial, but at the same time, they can perpetuate a more hierarchical society. Although the novel does not emphasise this point, namely the hierarchy among species, it questions the falsity of human beings in considering themselves as the sovereign masters of all species in this world. Robson also draws attention to the fact that technologically interfering with the mind and body of certain groups within a critical posthuman context would bring some unwanted consequences, such as the conflicts that the Forged and the Unevolved encounter.

Robson’s emphasis on both the negative and the positive sides of posthuman technology is explained by Kaye Mitchell, who states that *Natural History* “depict[s] both the harnessing of technology for the purposes of human advancement and the negative, potentially dehumanising effects of technological ‘progress’” (117). We not only observe cyborgization through the merging of technology and human, human and animal, human and alien, but also through the collapse of cyberspace and reality. Mitchell notes that Robson makes us consider “both the positive (emancipatory) and negative (loss of self) ramifications of this process; the alien “Stuff” can be viewed as either welcoming, offering the possibility of an immeasurably enhanced understanding and experience, or voracious in the way that it “[sucks] everything up together”” (125).

In her futuristic posthuman vision, Justina Robson not only envisions a future where Mars and the Moon are terraformed and we have colonising settlers in Jupiter and Saturn, but also she mentions a new virtual reality space, Uluru. Here, the characters can create their own experiences and live through them. It is a computer generated virtual reality ruled and controlled by Tatresi Tupac where the characters enter as extensions of their material

bodies. By transcending their physical material bodies, the characters experience an unrestricted freedom in this world. This is cyberspace, “a consensual hallucination” (Gibson 5). Uluru enables the characters to extend their “embodied awareness” (Hayles, *How We* 291). It is a “virtual reality prepared for Forged children to live in before they were connected to the bodies that would one day be their only physical existence” (130). So, before the Forged become adults, they absorb memories, experiences and history as children before they are connected to their engineered bodies. This Dreamtime is the only existence the Forged know before they become adults and their bodies are augmented into cyborg bodies. For example, Isol Voyager recalls herself as a little girl in a human body, in a pink ballet dress.

Uluru permits the characters a kind of transcendence to bypass the essential boundaries between what is real and what is simulated, what is present and what is not. In this sense, it reflects a posthuman environment where the permeability of the boundaries between mind and body, reality and simulation, is profoundly felt. In particular, Uluru evokes the boundary breaking between the physical and the non-physical which Donna Haraway mentions in “A Cyborg Manifesto.” One of the crucial breakdowns Haraway underlines via the cyborg metaphor is the dissolution of boundaries between the physical and the non-physical. As she notes, because of [t]he ubiquity and invisibility of cyborgs . . . [t]hey are as hard to see politically as materially. They are about consciousness – or its simulation” (275). Therefore, being a figment of human consciousness and at the same time an actual place where Forged children are trained, Uluru blurs the boundaries between what is real and what is simulated. Here, the human forms can shift experiences and identities here in cyberspace, which acts like a passage from one personality to another or one dimension to another, calling stable identity into question. In a way, it puts the characters in an escapist state of mind by which they can quickly forget about their actual physical realities and dream for a better life. As William S. Haney II argues, “[c]yberspace enhances an extension of thought, body and world for a posthuman embodied agent, as well as a transcendence of thought, body and world through witnessing consciousness for anyone whose potential to access human nature has not been compromised” (34).

In order to feel what it is like to be wholly organic human, by shifting his constructed identity into the identity of the Unevolved by means of cyberspace, Corvax enters the virtual reality of Uluru. What he experiences is, however, the incredible pain the Unevolved undergo. He finds the natural human body very frail and subject to enduring a lot of pain. Therefore, when he enters Uluru, he has to leave his enhanced wings behind and his body becomes feeble which he finds very limited. Like Corvax, the other Forged enter the virtual world of Uluru to have an understanding of what it means to be unmodified natural humans and how their cyborg bodies differ from wholly organic bodies. Like Corvax they also experience pain, fear, anxiety, simplicity, and bad smell. During his Uluru years Corvax also learns to steal, fight, and fix machines. In addition to fulfilling the dream of what it means to be human in the image of their choosing, the flexible posthuman world of Uluru allows sexual intercourse between the Unevolved and the Forged irrespective of their incompatible bodies as it offers a free will to do whatever any entity desires. The limits of conventional relationships can be pushed in the world of Uluru. As Jenny Wolmark claims, it “has the potential to be a new and heterogeneous space of desire” (119). Zephyr Duquesne, for example starts to develop “insatiable desire” (190) for Kalu. Interestingly, they even term the pornography involving the Unevolved and the Forged as the “Forno” which is defined as “a sickeningly infinite array of penetration and interpenetration potentials, of violence, tenderness, lust and revulsion” (189). This virtual world, in short, offers fluid sexuality to both cyborg and natural bodies alike with “no barriers, no restrictions on how far it is possible to go” (Plant 14). As a natural Unevolved human, for the time being, Zephyr feels embarrassment for her love towards Kalu. When he asks Zephyr out for dinner, she gets happy and kisses him on his metal cheek. However, as she opts not to travel back to Earth utilising the power of the Stuff, their reunion is never consummated.

*Natural History* succinctly explores posthumanization by speculating about the political, social, and ethical concerns of rapidly improving technoscientific developments. In this sense, the novel enables us “to concretely imagine bodies and selves” as well as “explore and explain the relationship between changes in the material world – which might include new technologies – and changes in the human subjects who inhabit this world” (Vint, *Bodies of Tomorrow* 19). According to Kaye Mitchell, the ramifications of the bodily

alteration by technology and the fundamental question regarding the close intersections of humans and machines the novel poses, are quite convincing. The question Robson expects readers to articulate is, “[w]ill technology render us posthuman in its blurring of the boundaries of human and machine?” (Mitchell 109). As Robson might well be aware of, with the staggering amount of advancements in science and technology, humanity is rapidly moving towards posthumanity. Just as the Unevolved, the Forged and the Degraded and other in-between species exemplify in the novel, we, too are embodied “in a knot of species coshaping each other in layers of reciprocating complexity all the way down” (Haraway, *When Species* 42).

In this sense, *Natural History* is a microcosm of our world where all species do actually meet and coshape each other with “muddled histories” lurking behind. Cyborgs provide exemplary means to analyse these intersections and allow us to “imagine a different kind of material-semiotic world, a different conception of identity and related politics, and a different kind of feminist and cultural criticism . . . The cyborg is . . . a positioning, a way of thinking and seeing” (Schneider 65). The cyborg enables us to think beyond the limiting humanist assumptions, by disrupting the boundaries between biological and technological, interior and exterior, the body and machine, organic and inorganic, as the construction of each is mutually constitutive. While these separations are blurred, human bodies become posthuman bodies, inextricably entwined, interdependent, and merged with other forms of life. Perhaps, therefore, Robson sees the cyborg as a “promise” for future generations for “destabilization of [the] boundaries offers a possibility of the emergence and survival of more promising stories for more living beings” (Schneider 65).

## CONCLUSION

### TOWARDS A POSHUMAN(IST) ETHICS

Bodies are not inert, they function interactively and  
productively.

*Volatile Bodies*, Elizabeth Grosz

A distinctive academic discipline, posthumanism designates our current condition where the impact of recent biomedical and biotechnological developments has triggered significant socio-political, ethical and cultural debates in literary and cultural studies. The discussions mostly revolve around the human subject, which is discussed in terms of “heterogeneous assemblages” (Bennett 23) inextricably interlaced with the more-than-human world. While recontextualising the notion of the human, in tandem with identity, gender, and sexuality, posthuman theorists refute the ontological distinctions between human/nonhuman, self/other, male/female, organic/inorganic, and natural/genetically manipulated. Our anthropocentric way of seeing the world rests on these distinctions, but posthumanism has significantly changed this vision. This dissertation has undertaken an analysis based on critical posthumanist methodology, which rests more on expanding the conception of the human to the nonhuman world, allowing one to see that the boundaries between the human subject and other entities are porous. This is the underlying factor inaugurating critical posthumanism as an approach to analyse the selected novels which direct our attention to all forms of lives, reminding us of our embeddedness within the larger environment. As lucidly pointed out by Pramod Nayar, critical posthumanism

is an *ethical project* that asks us to ponder, and act, upon the acknowledgement that life forms have messy, intertwined histories. From borrowed, adapted, merged and mutually dependent origins to cooperative evolution of species, life forms have always lived and become with others. It asks us to acknowledge that human hierarchization of life forms has resulted in catastrophic effects for/upon animals, forests and plant life and some groups of humans in the form of genocides. Thus critical posthumanism is an ethical position against hierarchization of life forms because such rankings have inevitably resulted in exclusionary practices directed at particular life forms, races and groups. (31)

This new posthuman understanding is fictionalised by contemporary novelists. Among these novelists are Kazuo Ishiguro, Indra Sinha, and Justina Robson as selected authors discussed in this dissertation. With a particular focus on posthuman bodies, these novelists successfully reflect the posthuman condition from biomedical, ecological, and biotechnological, and more importantly, ethical perspectives. *Never Let Me Go*, *Animal's People* and *Natural History* especially underline the significance of developing a posthuman ethics, which emerges at the crossroads of posthuman theory and environmental ethics. Each novelist argues for a need to develop a more ethical, more complex, and more egalitarian relationship to the nonhuman entities with whom we share our planet. As posthuman scholar Cecilia Åsberg contends, since our inextricable entanglement with the more-than-human world necessitates more responsibility towards it, the “posthuman turn comes with some serious ethics” (9). With this recognition, this dissertation underlines the selected novelists’ proclivity to call for a new insight in the embodiment of the entire species, human, or nonhuman, as well as in our re-articulation of the prospective consequences of our ethical decisions and actions, and how they are closely related to the idea of posthuman ethics. From such a critical perspective, these selected novels adopt a posthumanist ethical stance calling for political and social justice to all human and nonhuman beings. As also put differently by Stacy Alaimo, “[a] posthuman environmental ethics denies the human the sense of separation from the interconnected, mutually constitutive actions of material reality” (*Bodily Natures* 157). The intra-active entanglement of human beings, however, does not mean that they can forego accountability for their actions; instead, it actually configures human beings as inseparable from the natural world. Within this posthumanist ethical framework, the natural world, as Stacy Alaimo explains, “can no longer figure as background, resource, or passive matter, discrete substances that remain below or behind the human” (*Bodily Natures* 154).

This is the standpoint we can clearly observe emplotted in the selected novels, which have been analysed as viable examples of posthuman narratives in this dissertation, drawing upon and expanding the ideas forwarded by such scholars as N. Katherine Hayles, Donna Haraway, Pramod Nayar, Neil Badmington, Cary Wolfe, Stacy Alaimo, Karen Barad, Rosi Braidotti, and Stefan Herbrechter. These novels make us realise that whatever we

consider other than human, less than human, or more than human is actually the very substance of the human. It is in this sense that while describing posthuman landscapes, the novelists tend to align them with affirmative possibilities, situating human beings embedded within the natural world. They envision posthuman condition for the betterment of human beings, with more promising resources and more extended lives, but lesser diseases and thus, lesser mortality rates. On the other hand, they also focus on the particular anxieties and foreboding effects of posthumanization, shaped by the unpredictability of what it might bring about in the distant future. The future world these novelists describe can also be apocalyptic, disastrous, totalitarian, non-egalitarian, and ecologically devastated with prevalent diseases and other problems. Through these representative depictions of the posthuman condition, Kazuo Ishiguro, Indra Sinha, and Justina Robson invite us to meditate on the potential consequences, both negative and positive. They do not simply portray a bleak picture of the posthuman world fraught with catastrophes, devastated lives, lost biodiversity, escalated global and environmental problems, and arouse feelings of terror and aversion. They are more invested in depicting how humans and nonhumans are co-constituted, and invite readers to contemplate the new shifts in articulating the notion of the human. Thereby, re-thinking the concept of human in the framework of a new ethical vision, or posthuman ethics, is what makes these texts posthuman in nature.

For example, with his artistic treatment, Kazuo Ishiguro in *Never Let Me Go* hints at the possible hazardous consequences of genetic engineering, and its ethical questions. Despite being an advocate of scientific breakthroughs, he warns his readers into thinking through the potential divisions they would create in society. In fact, the present-day scientific and technological applications, he insinuates, might exacerbate the idea of superior human beings with unprecedented skills, and thus widen the gap between human and nonhuman beings; but, more importantly, they also might generate inconceivable differences among people. As it is implied in the novel, while the biomedical practices would allow us to lessen diseases and reduce organ-failure deaths, only the rich humans would be able to afford to benefit from them, which would for example result in increasingly unequal distribution of healthcare and thus extend, social injustice. As it is

also pointed out by Andrew Piper, the “selection of the creation of genes . . . will fashion people who are more healthy, more intelligent, more attractive” (74).

Indra Sinha’s *Animal’s People* operates in a similar fashion. The biotechnological achievement of pesticide production may seem like a revolutionary innovation, however, an array of chemicals sprayed from the factories has caused gas-related diseases and immense pollution. In *Animal’s People*, the toxic leakage from the factory run by an American corporation causes irreparable damages. Referring to these xenobiotic chemicals as “deviant agents,” Stacy Alaimo underlines the infeasibility to comprehend the extent of the toxification. She states, they have “effects – many of which are as yet unknown – on living, fleshy creatures” (*Bodily Natures* 138). The pervasive toxicity, however, explicitly manifests itself in the imminent physical bodily mutations and mental degradation of people “inhabiting these deviant spaces” (Alaimo, *Bodily Natures* 122). To name a few of the imminent effects, the bent-over spine, dementia, amnesia, the loss of voice, in addition to high levels of certain diseases, like many forms of cancer and substantial ecological degradation are clearly observed in the novel. As an analytical approach, this study has therefore situated *Animal’s People* in the context of toxic discourse as it underscores the urgency to desert our anthropocentric values on an individual level and compels those in power to change their actions on a global level. Toxic discourse, as Cecelia Tichi points out, reveals how these sprawling powers like “the government, corporations, and military all functioning to foul and contaminate both earth and waters within a . . . nuclear culture” (250). Therefore, within the discourse of toxicity, the novel explores the ways in which these forces act as significant players in the emergence of pervasive toxicity. Indra Sinha, by revealing the ethically-deprived but interest-driven mindset behind these institutions, points towards a more ethical way of living.

Justina Robson’s *Natural History* is not different in its embodiment of future-transforming breakthroughs as both, liberating and exhilarating prospects, and potentially negative developments. In the novel, future humanity has advanced in every conceivable technology ranging from eugenics and genetic engineering to nanotechnology. These technologies have enabled to forge a new type of human – the Forged who can travel



deep underwater in the ocean, colonise other planets, travel through space without the need for equipment or a spaceship. Despite their evolved bodies, because they are rigidly bound to the “form and function” imposed by the unevolved humans, they are associated with slaves. Throughout the novel, the Forged struggle to attain their independence and a new, unconstrained life on another planet. This struggle raises a number of ethical questions that may be understood within the wider scope of posthuman ethics that “refuses to see the delineated shape of the human as distinct from the background of nature” (Alaimo, *Bodily Natures* 142) as well as from all nonhuman forms of life. At the end of the novel, the Forged realise the interdependency of their bodies with the Unevolved human bodies as they need the components of human biology to exist.

This is perhaps the most important question the novels collectively pose in their deconstruction of the long-standing presuppositions of a coherent, natural and pure body. Kazuo Ishiguro’s *Never Let Me Go*, Indra Sinha’s *Animal’s People*, and Justina Robson’s *Natural History* urge their readers to consider the implications of biotechnology and biomedicine that not only change the externality of the bodies via body-altering practices, and the interiority with organ transplantation, xenotransplantation, and implants as well as tissue and stem cell transfer, but also transform the minds by complicating the idea of what a true self is. Since it is through our bodies that we attempt to define ourselves, the body in posthumanist discussions is recontextualised. As “a political, ontological, and epistemological site” (“Thinking” 16), the body is not only an important tool to explore the changing concept of human, but also the new configurations of ethics, identity, sexuality, gender and race. It is in fact a “threshold where nature and culture dissolve” (Alaimo, “Skin Dreaming” 137).

These and other posthuman accounts regard the notion of the body as an inextricable part of the “substantial interchanges, flows, and substances of the co-extensive world” (Alaimo, “Thinking” 17), which is shaped and defined by material-discursive forces, material agencies and socio-political practices. As Katherine Hayles also argues, our bodies are “semi-permeable organisms,” (*How We Became* 4) which are prone to being altered, augmented or transformed by various technologies and agencies ranging from artificial organs, bionic hearts, contact lenses, and prosthetics to hormone disruptors, plastics, and toxic contamination. It is through this intra-action of bodies and organic as

well as inorganic substances that the understanding of the natural body shifts. Just as “the age of the human has given way to the posthuman,” (Hayles, “The Life” 157) the understanding of the natural body is replaced by the posthuman body. The posthuman bodies, as Pramod Nayar defines them, are the “emblems of a new world order . . . as place-holders in the shift from the old world to the new” (61). They have become the locus for new articulations of the concept of human as the interface of organic and inorganic forms.

Due to posthuman bodies’ envelopment of organic and inorganic forms and their “profound sense of entanglement, intra-activity, and perpetual emergence, [they] foster an ethical stance that insists that the activities and knowledge practices of the human are always part of, and accountable to, the wider world” (Alaimo, *Bodily Natures* 158). Posthuman ethics, thus extends the articulation of an “ethics of bodies that matter” (Zylinska 84) to an ethics of global recognition of all different species, bodies, and identities in the face of post-anthropocentrism. As Rosi Braidotti also states, “the posthuman predicament enforces the necessity to think again and to think harder about the status of human subjectivity and the ethical relations, norms and values that may be worthy of the complexity of our times” (“Posthuman Critical Theory” 13). Braidotti moves towards affirmative politics and cultural theory based on not only cherishing posthuman ethics, but also new alternative forms of subjectivity, identity politics, and bodies. “The posthuman subjectivity” in her understanding of posthuman ethics, is “materialist and vitalist, embodied and embedded” (*The Posthuman* 51), which makes it a crucial component in terms of creating an affirmative binding between living and non-living matters:

The ethical imagination is alive and well in posthuman subjects, in the form of ontological relationality, which stresses an enlarged sense of inter-connection between self and others, including the nonhuman . . . by removing the obstacle of self-centred individualism on the one hand and the barriers of negativity on the other. (Braidotti, “Posthuman Critical Theory” 25)

At the core of this study is the analysis of different variations of posthuman bodies as they emerge in the selected novels, and thus how they contribute to a new posthuman ethics. The posthuman bodies in these novels are congeries of hybridity, and evince that

they are not bounded with certain bodily limitations or borders. They are all fluid and flexible structures entering into “multiple becoming” (Braidotti “Posthuman” 200) with other bodies, organisms, and species.

In the selected novels, the representations of posthuman body types – clone, toxic, and cyborg bodies – respectively, appear to signify the fluidity and porousness of bodily borders with other organisms, species and substances in the environment. For instance, the “posthuman bodies” in *Never Let Me Go*, as Pramod K. Nayar avers, “are the bodies designed for donation of organ, with pre-set life spans” (*Posthumanism* 61). Thus, the posthuman bodies of clones in the novel challenge the boundaries between self and other or the natural and the unnatural body when “the identities of clones (derived from humans) and of the humans (whose organs are now clones) begin to blur internally” (Nayar 61). Similarly, the posthuman bodies in Justina Robson’s *Natural History* are grafted with various human and animal DNAs and genes, as well as mechanical components, dismantling the boundaries separating human/animal/machine. Like Donna Haraway’s cyborg figure, they are dubbed as cyborg bodies, since not only do they eschew bodily norms but they also challenge conventional norms of gender, sexuality and femininity. As these examples show, the posthuman body is not confined with fixity, one subjectivity, one type of sexuality or gender. In Justina Robson’s *Natural History*, however, human bodies are not genetically modified to extend the life-span as in Kazuo Ishiguro’s *Never Let Me Go*, but to augment the bodies so that they may withstand harsh environments and to improve their function in compelling jobs. This seems to clearly suggest that posthuman bodies in these novels, as trans-corporeal agencies intra-acting with the organisms, machines, substances, and such other forces, can be taken as epitomes of futuristic affirmatives. In that, not only do they abolish the constraints placed on the bodies, identities, and subjectivities, but they also operate as crucial tools to expand the notion of our ethics to a more comprehensive and unbiased posthumanist ethics.

On the other hand, because these posthuman bodies overturn our basic convictions about the natural characteristics of bodies, they act as a menace to the entire public in each of the narratives. Not only do their modified bodies pose a challenge to our understanding of the natural and coherent body, but they also threaten the very “superior” existence of

ordinary people. Therefore, the constant fear and concern for the breach of the authority seems to validate the general public's dread and uneasiness. What demands critical attention is that instead of fully embodying them, the "normal" people in Kazuo Ishiguro's *Never Let Me Go*, Indra Sinha's *Animal's People*, and Justina Robson's *Natural History* consider these posthuman bodies aberrant, repulsive, deformed with hunchback, different or mere objects to be utilised for the purpose of human progression. Each novel explores the constructed nature of normalcy as it relates to bodies. The emerging posthuman bodies in Kazuo Ishiguro's *Never Let Me Go*, Indra Sinha's *Animal's People*, and Justina Robson's *Natural History* are to a lesser or greater degree altered by biomedicine, industrialised toxicity, and genetic manipulation, respectively. It is because of the alterations they undergo that they are not seen as normal. Owing to their posthuman bodies, these "othered" characters in the novels are subjected to de-individualisation and forced to exist outside the parameters of "normal" human community. Donna Haraway terms the non-normative excluded bodies, such as the clones, mutants, the cyborg bodies, or artificial bodies as the "inappropriate/d other" (*The Promises* 320). These types of "problematic selves and "unexpected others," as Haraway remarks, are "something inappropriate, unfitting, and or, maybe, inappropriated" (*The Promises* 320), which fittingly describes the posthuman bodies in the novels. As their presence disturbs the "normal," the interaction with them is frowned upon unless it is required for their commodification and exploitation. Not only do the posthuman bodies arouse dread and uncanny feelings, they are always freighted with negative connotations. In Kazuo Ishiguro's *Never Let Me Go*, for example, they are identified as spiders, trash, prostitutes, and poor creatures. They are "the marginal, the liminal, and the excluded" (Lewis 13). In one of the scenes in *Never Let Me Go*, one of the guardians Miss Lucy points out how she feels disgusted and uncanny by the image of the clones: "It's like walking past a mirror you've walked past everyday of your life, and suddenly it shows you something else, something troubling and strange" (36).

The posthuman bodies in these narratives are the markers of whether these beings can be evaluated within the status of humanity or not. As each narrative unravels, being human is contingent upon how the bodies are shaped. Since the posthuman bodies do not conform to socially and culturally inscribed codes of normalcy, the posthuman subjects

in the novels are not considered human. The question of whether these posthuman bodies, sharing the same DNA with us should be treated as people in the full sense, is continually asked in these novels.

This dissertation posits that it is through the numerous representations of different posthuman bodies that the novels advocate posthuman ethics which reconciles human and nonhuman beings. Ethics which is accompanied by political, social and philosophical reflections has become a dominant issue in posthuman studies. This is in line with Scott Bukatman's reasoning as he argues that the "provocative set of new posthuman contours . . . [should] necessarily contain the germ of new political and philosophical orientations to accompany their new spatial and bodily configurations" (325). Acting as potential conduits, these posthuman bodies give voice to the possible political resistances, ecological devastations, unequal treatment and unethical demeanours as well as futuristic advancements in science and technology. As Patricia MacCormack, a professor of continental philosophy, in *Posthuman Ethics: Embodiment and Cultural Theory* (2012) posits, "[i]nherent in thinking posthuman ethics is the status of bodies as the site of lives inextricable from philosophy, thought, and experiments in being and fantasies of the future" (1). Therefore, bodies in posthuman encounters have a special locality "to think new relations that offer liberty and a contemplation of the practices of power which have been exerted upon bodies" (MacCormack 1). Therefore, posthuman ethics explores the biopower exerted on the posthuman bodies in the novels that enables the justification of their extermination or subjugation. This can be lucidly observed in *Never Let Me Go* when the normals without bearing any ethical responsibility or displaying any sign of remorse, see the posthuman bodies of clones as "essentially organ farms" (Nayar 61) and harvest their organs even before they become brain dead. Without any legal or social impositions, the lives of the cloned subjects can easily be terminated. Touching upon the ethics of cloning, of replicating human bodies, and organ transplantation, Kazuo Ishiguro makes us ponder whether the extension of the lives of some privileged humans at the expense of other lives is ethically right. Implicit in his narrative is a criticism of the lack of ethical and moral conduct of normals in the commodification of living bodies. Similar to these ethics-deprived human beings, the journalist in *Animal's People* does not show any intention of evoking ethical responsibility or compassion when he visits the town to

recount the experiences of the inhabitants to the Western world. Rather, resembled to a “vulture” (5) he is there to steal the stories from the townspeople. Also, the Kampani owners and representatives accountable for the disaster avoid taking ethical responsibility for the consequences of their actions, and doing something to alleviate the suffering of local people. In this respect, as reflected in these novels, the failure to regard these posthuman subjects ethically leads to their oppression, humiliation or their discrimination.

Inherent to posthuman ethics is basically the ethical recognition of others, their variant identities, selves, races, genders, and bodies, avoiding the fallacy of homogenising them. Instead, accepting their difference and learning to realise our interdependence with different groups, it calls us to live together in a peaceful way. As Sherryl Vint also points out, learning to exist together without excluding or erasing other species, correlates with the posthuman ethics. She concedes, it is a “politics of how to live as omnivores among herbivores and carnivores, in relations of mutual consumption and mutual dependency, but without reducing some species to objects that can be ruthlessly exploited without ethical dilemma” (Vint, *Bodies of Tomorrow* 28). Thus, the conception of posthuman ethics should not only reinforce the interconnectedness between human and nonhuman beings, but also help us to develop respect for what is different than us. As posthuman scholar Cecilia Åsberg aptly puts it, “[p]osthumanist ethics, entangled with onto-epistemologies of worldly ‘intra-actions’ (Barad), emerge as efforts to respect and meet well with, even extend care to, others while acknowledging that we may not know the other and what the best kind of care would be” (8). Through the establishment of posthuman ethics, we might be able to construct a world based not on differences or a set of rules to mitigate or disregard human and nonhuman others, but based on “relationality, difference and connections rather than . . . isolation, separation and boundedness” (Nayar 32).

Thus, criticising “speciesist thinking,” these posthuman narratives urge us to “develop literary posthuman ethics . . . not based on categorizations, but instead on mutual recognition and the value of life and suffering that is shared across species boundaries” (Kleinmans 3). Re-evaluating our Eurocentric and anthropocentric ethics that is based on

divisive categories, these novels encourage us to “work on posthuman(ist) ethics that avoids the traps of a narrow human ethics and that is inclusive rather than exclusive” (Kleinhaus 1). Fostering a posthuman ethical stance that “challenges speciesism and includes all others – also animals – [which] is a necessary step towards dismantling racism and all possible constraining –isms” (Kleinhaus 2). The novels reveal the insufficiency of our current ethical model, which is grounded in this anthropocentric viewpoint. In dismantling this worldview enacting posthuman ethical stance is crucial, as it points to our mutual and entangled existence with all forms of lives. Within this critical context, posthuman theory makes it clear that new conceptions of life are needed in order to guide the evolution and unfolding of our intentions, which can only be referred to as a posthuman ethics. Therefore, by detailing the complex, dynamic, evolving intra-action between bodies/entities, critical posthuman theory implies the need for an even more complex, dynamic, evolving, and living posthuman ethics.

This dissertation concludes with the idea that only by establishing a posthuman ethics can we acknowledge the inherent and intrinsic value of all lives and agencies. To this end, posthuman bodies are important tools to help us reconsider our roles toward both the human and nonhuman world, recognising the capabilities, existence and connections of each and every one. They, as different variants, interfaced with machines, animal parts, and various organisms, have contributed to the change in our perception of bodies. This shift from understanding the body as natural and stable to something fluid without fixed borders has drastically impacted how we see ourselves in our relation to “earth others” (Braidotti, *The Posthuman* 48).

## NOTES

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### INTRODUCTION

<sup>i</sup> As the title of this article indicates, Hassan refers to the mythic figure of Prometheus, who, as an ambivalent figure, bridges the dualistic gap between the divine and the human by providing technology and the art of fire to mankind, against the will of the divine beings. By significantly helping humanity, Prometheus seeks a unification of the human and the nonhuman (divinity), human and technology, science and culture, that is very much synonymous with the emergence of posthumanism: “Prometheus is himself the figure of a flawed consciousness struggling to transcend . . . divisions. With regard to posthumanism itself, the most relevant aspect of the Promethean dialectic concerns Imagination and Science, Myth and Technology, Earth and Sky” (207). In his endeavour to depict posthumanism, Hassan’s allusion to the myth of Prometheus therefore seems relevant because it reflects our current posthumanist culture that can be characterised by “[c]onvergences and divergences, conjunctions and disjunctions” (832). As far as the myth goes, the competency to use technology and control fire with the aid of Prometheus transforms the basic image of the human into a more capable being. Thereby, Hassan’s “Prometheus a Performer” is the first critical text that sparked a huge debate in the earliest posthuman discussions of how consequent interface of humans with new technologies brings the new posthuman subject into light.

<sup>ii</sup> This first patented mammal was injected with human genetic material for the purpose of scientific research of finding a cure to breast cancer.

<sup>iii</sup> Michél Foucault’s discussion of biopower, for instance, since it evokes equal dispersion of power among all living and nonliving beings, and thus their equal subjugation, suggests a posthuman way of living.

<sup>iv</sup> For example, both transhumanism and posthumanism include the issues of nanotechnology, artificial intelligence, genetic engineering, cloning, replication, and robotics. Additionally, and more explicitly, certain affinities are shared between both of



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these movements in terms of their useful subjectivity and the body. Both study the creation of living organisms, enhanced bodies, and human bodies with machine parts; yet, while posthumanism embraces the possibilities of the interface of human/nonhuman/inhuman, transhumanism privileges human as a distinct category that is dissociated from the nonhuman. Since posthumanism seeks to bring about new forms of posthuman agencies and subjects, and invests in forming new relations, not separations, this dissertation employs it in analysing the selected novels as posthuman novels rather than transhuman, irrespective of some shared reflections.

## WORKS CITED

### Primary Sources

Ishiguro, Kazuo. *Never Let Me Go*. London: Faber and Faber, 2005. Print.

Robson, Justina. *Natural History*. New York: Bantam, 2005. Print.

Sinha, Indra. *Animal's People*. New York: Simon & Schuster, 2008. Print.

### Secondary Sources

Alaimo, Stacy. *Bodily Natures: Science, Environment, and the Material Self*. Bloomington: Indiana UP, 2010. Print.

---. "Cyborg and Ecofeminist Interventions: Challenges for an Environmental Feminism." *Feminist Studies* 20.1 (Spring 1994): 133-52. Print.

---. "Introduction: Emerging Models of Materiality in Feminist Theory." *Material Feminisms*. Bloomington, IN: Indiana UP, 2008. 1-19. Print.

---. "The Naked World: The Trans-corporeal Ethics of the Protesting Body." *Women & Performance: A Journal of Feminist Theory* 20.1 (2010): 15-36. Print.

---. "New Materialisms, Old Humanisms, Or, Following the Submersible." *Nora* 19.4 (2011): 280-84. Print.

---. "Oceanic Origins, Plastic Activism and New Materialism at Sea." *Material Ecocriticism*. Ed. Serenella Iovino and Serpil Oppermann. Bloomington: Indiana UP, 2014. 186-203. Print.

---. "Skin Dreaming: The Bodily Transgressions of Fielding Burke, Octavia Butler, and Linda Hogan." *Ecofeminist Literary Criticism: Theory, Interpretation, Pedagogy*. Ed. Greta Claire Gaard and Patrick D. Murphy. Urbana: U of Illinois, 1998. 123-39. Print.

---. "States of Suspension: Trans-corporeality at Sea." *Interdisciplinary Studies in Literature and Environment* 19.3 (2012): 476-93. Print. "Thinking as the Stuff of the World." *O-Zone: A Journal of Object-Oriented Studies* 1 (Autumn 2013): 13-21. Print.

---. "Thinking as the Stuff of the World." *O-Zone: A Journal of Object-Oriented Studies* 1 (Autumn 2013): 13-21. Print.

- . "Trans-Corporeal Feminisms and the Ethical Space of Nature." *Material Feminisms*. Ed. Stacy Alaimo and Susan J. Hekman. Bloomington: Indiana UP, 2008. 237-265. Print.
- Alaimo, Stacy, and Susan J. Hekman. "Introduction: Emerging Models of Materiality in Feminist Theory." *Material Feminisms*. Bloomington, IN: Indiana UP, 2008. 1-19. Print.
- Alexander, Brian. *Rapture: A Raucous Tour of Cloning, Transhumanism, and the New Era of Immortality*. New York: Basic, 2004. Print.
- Andy, Miah. "A Critical History of Posthumanism." *Medical Enhancement and Posthumanity*. Ed. Bert Gordijn and Ruth F. Chadwick. Dordrecht: Springer, 2008. 71-94. Print.
- Annas, George J. "Yes: Individual Dignity Demands Nothing Less." *ABA Journal* (May 1997): 80. Web. 22 Aug. 2013.
- Antonetta, Susanne. *Body Toxic: An Environmental Memoir*. Washington, D.C.: Counterpoint, 2001. Print.
- Åsberg, Cecilia. "The Timely Ethics of Posthumanist Gender Studies." *Feministische Studien* 31.1 (2013): 7-12. Print.
- Badmington, Neil. *Alien Chic: Posthumanism and the Other within*. London: Routledge, 2004. Print.
- . "Posthumanism." *The Routledge Companion to Literature and Science*. Ed. Bruce Clarke and Manuela Rossini. New York: Routledge, 2006. 378-84. Print.
- . *Posthumanism*. Houndmills, Basingstoke, Hampshire: Palgrave, 2000. Print.
- . "Theorizing Posthumanism." *Cultural Critique* 53.1 (2003): 10-27. Print.
- Balsamo, Anne. "Reading Cyborg Writing Feminism." *The Gendered Cyborg: A Reader*. Ed. Gill Kirkup. London: Routledge in Association with the Open U, 2000. 148-58. Print.
- . *Technologies of the Gendered Body: Reading Cyborg Women*. Durham: Duke UP, 1996. Print.
- Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke UP, 2007. Print.

- . "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Material Feminisms*. Ed. Stacy Alaimo and Susan J. Hekman. Bloomington, IN: Indiana UP, 2008. N. pag. Print.
- Bennett, Jane. *The Enchantment of Modern Life: Attachments, Crossings, and Ethics*. Princeton, NJ: Princeton UP, 2001. Print.
- . *Vibrant Matter: A Political Ecology of Things*. Durham: Duke UP, 2010. Print.
- Best, Steven, and Douglas Kellner. "Biotechnology, Ethics and the Politics of Cloning." *Democracy & Nature* 8.3 (2002): 439-65. Web. 23 Mar. 2014.
- Bidwai, Praful. "No Way Out." [Http://www.outlookindia.com/](http://www.outlookindia.com/). Outlook India, 7 Oct. 2002. Web. 15 Jan. 2015
- Black, Shameem. "Ishiguro's Inhuman Aesthetics." *MFS Modern Fiction Studies* 55.4 (Winter 2009): 785-807. Print.
- Black, Shameem. "Ishiguro's Inhuman Aesthetics." *MFS Modern Fiction Studies* 55.4 (2009): 785-807. *Project MUSE [Johns Hopkins UP]*. Web. 10 Mar. 2014.
- Book Club. "Kazuo Ishiguro on His Novel Never Let Me Go." *The Guardian*. Guardian News and Media, 24 Mar. 2006. Web. 15 Aug. 2014.
- Bostrom, Nick. "Introduction - The Transhumanist FAQ: A General Introduction." Introduction. *Transhumanism and the Body: The World Religions Speak*. Ed. Calvin R. Mercer and Derek F. Maher. New York, NY: Palgrave Macmillan, 2014. N. pag. Print.
- Braidotti, Rosi. "Are Bugs to Nature as Chips to Culture? On Becoming-insect with Deleuze/Guattari." *Deleuzian Events: Writing History*. Ed. Hanjo Berressem and Leyla Haferkamp. Berlin: Lit, 2009. 146-68. Print.
- . *Metamorphoses: Towards a Materialist Theory of Becoming*. Cambridge, UK: Polity, 2002. Print.
- . *Nomadic Theory: The Portable Rosi Braidotti*. New York: Columbia UP, 2011. Print.
- . *The Posthuman*. Hoboken: Wiley, 2013. Print.
- . "Posthuman, All Too Human: Towards a New Process Ontology." *Theory, Culture & Society* 23.7-8 (2006): 197-208. Print.
- . "Posthuman Critical Theory." *Critical Posthumanism and Planetary Futures* (2016): 13-32. Print.
- Buell, Lawrence. "Toxic Discourse." *Critical Inquiry* 24.3 (1998): 639-65. Print.

- . *Writing for an Endangered World: Literature, Culture, and Environment in the U.S. and beyond*. Cambridge, MA: Belknap of Harvard UP, 2001. Print.
- Bukatman, Scott. *Terminal Identity: The Virtual Subject in Postmodern Science Fiction*. Durham: Duke UP, 1993. Print
- Carson, Rachel. "Imitations of Life: Cloning, Heterosexuality and the Human in Kazuo Ishiguro's *Never Let Me Go*." *Journal of Gender Studies* 19.1 (2010): 59-71. Web. 11 Mar. 2014.
- Carson, Rachel. *Silent Spring*. Boston: Houghton Mifflin, 1962. Print.
- Carroll, Rachel. Clark, Andy. Cooper, Lydia R. "Novelistic Practice and Ethical Philosophy in Ishiguro's *Remains of the Day* and *Never Let Me Go*." *Kazuo Ishiguro: New Critical Visions of the Novels*. Ed. Sebastian Groes and Barry Lewis. Basingstoke: Palgrave Macmillan, 2011. 95-105. Print.
- Clark, Andy. *Natural-born Cyborgs: Minds, Technologies, and the Future of Human Intelligence*. Oxford: Oxford UP, 2003. Print.
- Clynes, Manfred E., and Nathan S. Kline. "Cyborgs and Society." *Astronautics* (September 1960): 26+. Print.
- Cook, Peta S. *The Modernistic Posthuman Prophecy of Donna Haraway* Peta S. CookCentre for Social Change Research, Queensland University of Technology Paper Presented to the Social Change in the 21st Century Conference Centre for Social Change Research Queensland University of Technology 29 October 2004. Proc. of Social Change in the 21st Century Conference, Queensland University of Technology, Queensland. 2004. Web. 16 Apr. 2015.
- Cooper, Lydia R. "Novelistic Practice and Ethical Philosophy in Kazuo Ishiguro's *The Remains of the Day* and *Never Let Me Go*." *Kazuo Ishiguro: New Critical Visions of the Novels*. Ed. Sebastian Groes and Barry Lewis. Houndmills, Basingstoke, Hampshire, UK: Palgrave Macmillan, 2011. 106-17. Print.
- Deitering, Cynthia. "The Postnatural Novel: Toxic Consciousness in Fiction of the 1980s." *The Ecocriticism Reader: Landmarks in Literary Ecology*. Ed. Cheryll Glotfelty and Harold Fromm. Athens: University of Georgia, 1996. 196-203. Print.

- Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus Capitalism and Schizophrenia*. Minneapolis: University of Minnesota, 1987. Print.
- Derrida, Jacques. *The Animal That Therefore I Am*. Ed. Marie-Louise Mallet. New York: Fordham UP, 2008. Print.
- Descartes, René. *Discourse on the Method*. Radford, VA: Wilder Publications, 2008. Print.
- Didur, Jill. "Re-embodiment Technoscientific Fantasies: Posthumanism, Genetically Modified Foods, and the Colonization of Life." *Cultural Critique* 53.1 (Winter 2003): 98-115. Print.
- Eatough, Matthew. "The Time That Remains: Organ Donation, Temporal Duration, and *Bildung* in Kazuo Ishiguro's *Never Let Me Go*." *Literature and Medicine* 29.1 (2011): 132-60. *Project MUSE [Johns Hopkins UP]*. Web. 8 Feb. 2014.
- Eckerman, Ingrid. *The Bhopal Saga: Causes and Consequences of the World's Largest Industrial Disaster*. Hyderabad: Universities, 2005. Print.
- Everest, Larry. *Behind the Poison Cloud: Union Carbide's Bhopal Massacre*. Chicago: Banner, 1986. Print.
- Farnell, Ross. "Bodies That Speak Science Fiction: Stelarc – Performance Artist and 'Becoming Posthuman.'" *Speaking Science Fiction* (2001): 109-24. Web.
- Featherstone, Mike, and Roger Burrows. *Cyberspace/cyberbodies/cyberpunk: Cultures of Technological Embodiment*. London: Sage, 1995. Print.
- Ferrando, Francesca. "Posthumanism, Transhumanism, Antihumanism, Metahumanism, and New Materialisms: Differences and Relations." *Existenz*. 8.2 (March 2014): 26-32. Print.
- Fortun, Kim. *Advocacy after Bhopal: Environmentalism, Disaster, New Global Orders*. Chicago: U of Chicago, 2001. Print.
- Foster, Thomas. *The Souls of Cyberfolk: Posthumanism as Vernacular Theory*. Minneapolis: University of Minnesota, 2005. Print.
- Foucault, Michéel. *Discipline and Punish: The Birth of the Prison*. New York: Pantheon, 1977. Print.
- . *The Order of Things: An Archaeology of the Human Sciences*. New York: Pantheon, 1971. Print.

- . "Society Must Be Defended: Lectures at the College De France, 1975-76." *Labour History* 86 (2004): 218-64. Print.
- . "What Is Enlightenment?" *The Foucault Reader*. Ed. Paul Rabinow. New York: Pantheon, 1984. 32-50. Print.
- Foucault, Michél, and Michel Senellart. *The Birth of Biopolitics: Lectures at the Collège De France, 1978-79*. Basingstoke [England: Palgrave Macmillan, 2008. Print.
- Foucault, Michél, and Robert Hurley. *The History of Sexuality*. New York: Vintage, 1988. Print.
- Franklin, Sarah. *Biological Relatives: IVF, Stem Cells, and the Future of Kinship*. Durham: Duke UP, 2013. Print.
- . *Dolly Mixtures: The Remaking of Genealogy*. Durham: Duke UP, 2007. Print.
- Franklin, Sarah, Celia Lury, and Jackie Stacey. *Global Nature, Global Culture*. London: SAGE, 2000. Print.
- . *Embodied Progress: A Cultural Account of Assisted Conception*. London: Routledge, 1997. Print.
- Fukuyama, Francis. *Our Posthuman Future: Consequences of the Biotechnology Revolution*. New York: Farrar, Straus and Giroux, 2002. Print.
- Gane, Nicholas, and David Beer. *New Media*. Oxford: Berg, 2008. Print.
- Garlick, Steve. "Uncanny Sex: Cloning, Photographic Vision, and the Reproduction of Nature." *Social Semiotics* 20.2 (2010): 139-54. Web. 29 Sept. 2013.
- Gatens, Moira. *Imaginary Bodies: Ethics, Power, and Corporeality*. London: Routledge, 1996. Print.
- Gerlach, Neil, Sheryl L. Hamilton, Rebecca Sullivan, and Priscilla L. Walton. *Becoming Biosubjects: Bodies, Systems, Technologies*. Toronto: U of Toronto, 2011. Print.
- Goodeve, Thyrza Nichols. *How like a Leaf: An Interview with Donna Haraway*. New York: Routledge, 1999. Print.
- Gordijn, Bert, and Ruth F. Chadwick. *Medical Enhancement and Posthumanity*. Dordrecht: Springer, 2008. Print.
- Graham, Elaine L. *Representations of the Post/human: Monsters, Aliens, and Others in Popular Culture*. New Brunswick, NJ: Rutgers UP, 2002. Print.

- Gray, Chris Hables. *Cyborg Citizen: Politics in the Posthuman Age*. New York: Routledge, 2001. Print.
- Gray, Chris Hables, Steven Mentor, and Heidi J. Figueroa-Sarriera. "Cyborgology: Constructing the Knowledge of Cybernetic Organisms." Introduction. *The Cyborg Handbook*. Ed. Chris Hables Gray, Steven Mentor, and Heidi J. Figueroa-Sarriera. New York: Routledge, 1995. 1-17. Print.
- Griffin, Gabriele. "Science and the Cultural Imaginary: The Case of Kazuo Ishiguro's *Never Let Me Go*." *Textual Practice* 23.4 (2009): 645-63. Web. 5 Apr. 2013.
- Groes, Sebastian. *Kazuo Ishiguro: New Critical Visions of the Novels*. Basingstoke: Palgrave Macmillan, 2011. Print.
- Grosz, Elizabeth. *Space, Time, and Perversion: Essays on the Politics of Bodies*. New York: Routledge, 1995. Print.
- . *Time Travels: Feminism, Nature, Power*. Durham: Duke UP, 2005. Print.
- . *Volatile Bodies: Toward a Corporeal Feminism*. Bloomington, IN: Indiana UP, 1994. Print.
- Halberstam, Judith, and Ira Livingston. *Posthuman Bodies*. Bloomington: Indiana UP, 1995. Print.
- Hammarström, Matz. "On the Concepts of Trans action and Intra-action." *Action, Belief and Inquiry - Pragmatist Perspectives on Science, Society and Religion*. Ed. Ulf Zackariasson. Helsinki: Nordic Pragmatism Network, 2015. 174-86. Print.
- Haney, William S. *Cyberculture, Cyborgs and Science Fiction: Consciousness and the Posthuman*. Amsterdam: Rodopi, 2006. Print.
- Hans P. *Mind Children: The Future of Robot and Human Intelligence*. Cambridge, MA: Harvard UP, 1988. Print.
- Hansen, Mark B. N. *Bodies in Code: Interfaces with Digital Media*. New York: Routledge, 2006. Print.
- Haraway, Donna. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm, 2003. Print.
- . "Cyborgs and Symbionts: Living Together in the New World Order." Foreword. *The Cyborg Handbook*. Ed. Chris Hables Gray. New York: Routledge, 1995. Xi-1. Print.



- . "A Cyborg Manifesto." *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991. 149-82. Print.
- . *The Haraway Reader*. New York: Routledge, 2004. Print.
- . *Primate Visions: Gender, Race, and Nature in the World of Modern Science*. New York: Routledge, 1989. Print.
- . "The Promises of Monsters: A Regenerative Politics for Inappropriat/ed Others." *Cultural Studies*. Ed. Lawrence Grossberg, Cary Nelson, and Paula A. Treichler. New York: Routledge, 1992. 295-337. Print.
- . *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1991. Print.
- . "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14.3 (1988): 575-99. *JSTOR*. Web. 05 Mar. 2015.
- . *When Species Meet*. Minneapolis: University of Minnesota, 2008. Print.
- Hardt, Michael, and Antonio Negri. *Empire*. Cambridge, MA: Harvard UP, 2000. Print.
- Harfield, Timothy D. "Exposing Humanism: Prudence, Ingenium, and the Politics of the Posthuman." *Journal of Historical Sociology J Hist Sociol* 26.2 (2012): 264-88. Web.
- Hartouni, Valerie. *Cultural Conceptions: On Reproductive Technologies and the Remaking of Life*. Minneapolis: U of Minnesota, 1997. Print.
- Hassan, Ihab. "Prometheus as Performer: Toward a Posthumanist Culture?" *The Georgia Review* 31.4 (1977): 830-50. *JSTOR*. Web. 04 July 2014.
- Hayles, Katherine. "Afterword: The Human in the Posthuman." *Cultural Critique* No.53. Posthumanism (2003): 134-37. *JSTOR*. Web. 23 Jan. 2011.
- . *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago, IL: University of Chicago, 1999. Print.
- . "The Life Cycle of Cyborgs: Writing the Posthuman." *The Cyborg Handbook*. Ed. Chris Hables Gray, Steven Mentor, and Heidi J. Figueroa-Sarriera. New York: Routledge, 1995. 321-55. Print.
- . "Refiguring the Posthuman." *Comparative Literature Studies* 41.3 (2004): 311-16. Web.
- . "Unfinished Work: From Cyborg to Cognisphere." *Theory, Culture & Society* 23.7-8 (2006): 159-66. Print.

- Hayward, Eva. "More Lessons from a Starfish: Prefixial Flesh and Trans-speciated Selves." *WSQ: Women's Studies Quarterly* 36.3-4 (2008): 64-85. Web.
- Heise, Ursula. "Toxins, Drugs, and Global Systems: Risk and Narrative in the Contemporary Novel." *American Literature* 74.4 (2002): 747-78. Print.
- Herbrechter, Stefan. *Posthumanism: A Critical Analysis*. London: Bloomsbury Academic, 2013. Print.
- . "The Posthuman Review." *Culture Machine*. (April 2013). Web. 16 Apr. 2014.
- Herbrechter, Stefan, and Ivan Callus. *Posthumanist Shakespeare*. New York: Palgrave Macmillan, 2012. Print.
- . "What Is a Posthumanist Reading?" *Angelaki* 13.1 (2008): 95-111. Web.
- Hollinger, Veronica. "Posthumanism and Cyborg Theory." *The Routledge Companion to Science Fiction*. Ed. Mark Bould. London: Routledge, 2009. 267-78. Print.
- Holmes, David. *Virtual Politics: Identity and Community in Cyberspace*. London: Sage Publications, 1997. Print.
- Holoch, Adele. "Profanity and the Grotesque in Indra Sinha's *Animal's People*." *Interventions* 18.1 (2015): 127-42. Print.
- Houser, Heather. *Ecosickness in Contemporary U.S. Fiction: Environment and Affect*. New York: Columbia UP, 2014. Print.
- Iovino, Serenella. "Toxic Epiphanies: Dioxin, Power, and Gendered Bodies in Laura Conti's Narratives on Seveso." *International Perspectives in Feminist Ecocriticism*. By Greta Claire Gaard, Simon C. Estok, and Serpil Oppermann. London: Routledge, 2013. 37-55. Print.
- Iovino, Serenella, and Serpil Iovino. Introduction. *Material Ecocriticism*. By Serenella Iovino and Serpil Oppermann. Bloomington: Indiana UP, 2014. 1-20. Print.
- Ishiguro, Kazuo. "Guardian Book Club: Kazuo Ishiguro Talks to John Mullan." *Guardian Newsroom*. 24 Mar. 2006. Web.
- Jennings, Bruce. "Biopower and the Liberationist Romance." *The Hastings Center Report* 40.4 (2010): 16-20. *JSTOR*. Web. 16 Sept. 2014.
- Jerng, Mark. "Giving Form to Life: Cloning and Narrative Expectations of the Human." *Partial Answers: Journal of Literature and the History of Ideas* 6.2 (2008): 369-93. *Project MUSE [Johns Hopkins UP]*. Web. 13 June 2014.

- Johnston, Justin Omar. "A Nother World in Indra Sinha's *Animal's People*." *Twentieth-Century Literature* 62.2 (2016): 119-44. Print.
- Kata, Gyuris. "The Construction of Otherness in Kazuo Ishiguro's *Never Let Me Go*." *ELTE BTK Anglisztika II* (2012): 407-28. Print.
- Kleinhans, Belinda. "Posthuman Ethics, Violence, Creaturely Suffering and the (Other) Animal: Schnurre's Postwar Animal Stories." *Humanities* 5.3 (2016): 69. Print.
- Krauss, Celene. "Blue-Collar Women and Toxic-Waste Protests: The Process of Politicization." *Toxic Struggles: The Theory and Practice of Environmental Justice*. Ed. Richard Hofrichter. Philadelphia: New Society, 1993. 1-23. Print.
- Kunzru, Hari. "You Are Cyborg." *Wired*. Conde Nast, 01 Feb. 1997. Web. 10 Jan. 2015.
- Langford, David. *Starcombing: Columns, Essays, Reviews and More*. Rockville, MD: Cosmos, 2009. Print.
- Langston, Nancy. *Toxic Bodies: Hormone Disruptors and the Legacy of DES*. New Haven: Yale UP, 2010. Print.
- Lederer, Susan E. *Flesh and Blood: Organ Transplantation and Blood Transfusion in Twentieth-century America*. Oxford: Oxford UP, 2008. Print.
- Longhurst, Robyn. *Bodies: Exploring Fluid Boundaries*. London: Routledge, 2001. Print.
- MacCormack, Patricia. *Posthuman Ethics: Embodiment and Cultural Theory*. Farnham, Surrey, England: Ashgate, 2012. Print.
- Mahlstedt, Andrew. "Animal's Eyes: Spectacular Invisibility and the Terms of Recognition in Indra Sinha's *Animal's People*." *Mosaic Mosaic: A Journal for the Interdisciplinary Study of Literature* 46.3 (2013): 59-74. *Project MUSE [Johns Hopkins UP]*. Web.
- Mcdonald, Keith. "Days of Past Futures: Kazuo Ishiguro's *Never Let Me Go* as "Speculative Memoir." *Biography* 30.1 (Winter 2007): 74-83. Print.
- McLuhan, Marshall. *Understanding Media*. Düsseldorf: ECON-Verl., 1992. Print.
- Miah, Andy. "Critical History of Posthumanism." *Medical Enhancement and Posthumanity* 2 (2009): 71-94. Print.
- Michael, Mike. *Reconnecting Culture, Technology and Nature: From Society to Heterogeneity*. London: Routledge, 2000. Print.

- Milburn, Colin. "Nanotechnology in the Age of Posthuman Engineering." *Nanoculture: Implications of the New Technoscience*. Ed. Katherine Hayles. Bristol, UK: Intellect, 2004. 109-31. Print.
- . *Nanovision: Engineering the Future*. Durham: Duke UP, 2008. Print.
- Mitchell, Kaye. "Bodies That Matter: Science Fiction, Technoculture, and the Gendered Body." *Science Fiction Studies* 33.1, Technoculture and Science Fiction (2006): 109-28. *JSTOR*. Web. 17 Jan. 2017.
- Morton, Timothy. *The Ecological Thought*. Cambridge, MA: Harvard UP, 2010. Print.
- Nash, Linda Lorraine. *Inescapable Ecologies: A History of Environment, Disease, and Knowledge*. Berkeley: U of California, 2006. Print
- Nayar, Pramod K. *Posthumanism*. Cambridge: Polity, 2014. Print
- Nixon, Rob. *Slow Violence and the Environmentalism of the Poor*. Cambridge, MA: Harvard UP, 2011. Print.
- O'Brien, Susie. "Resilient Virtue and the Virtues of Resilience: PostBhopal Ecology in *Animal's People*." *Kunapipi* 34.2 (2012): 23-31. Print.
- Olkowski, Dorothea. *Gilles Deleuze and the Ruin of Representation*. Berkeley: University of California, 1999. Print.
- Oppermann, Serpil. "Alien Agencies, Toxic Bodies: Ecocritical Perspectives on Ecological Others." *The Postcolonial World*. Ed. Jyotsna G. Singh and David D. Kim. Abingdon, Oxon: Routledge, 2017. 412-24. Print.
- . "Feminist Ecocriticism: The New Ecofeminist Settlement." *Feminismo/s* 22 (2013): 65-88. Print.
- . "From Material to Posthuman Ecocriticism: Hybridity, Stories, Natures." *Handbook of Ecocriticism and Cultural Ecology*. Ed. Hubert Zapf. Berlin: De Gruyter, 2016. 273-95. Print.
- . "From Posthumanism to Posthuman Ecocriticism." *Relations* 4 (2016): 23-37. Web. 13 Sept. 2016.
- . "Review of Stacy Alaimo's *Bodily Natures*." *Environmental Ethics* 34.1 (2012): 103-06. Web. 18 Jan. 2015.
- Pepperell, Robert. *The Posthuman Condition: Consciousness beyond the Brain*. Bristol: Intellect, 2003. Print.

- Perkowitz, Sidney. *Digital People: From Bionic Humans to Androids*. Washington, D.C.: Joseph Henry, 2004. Print
- Petersen, Alan R., and Robin Bunton. *The New Genetics and the Public's Health*. London: Routledge, 2002. Print.
- Pérez, Jimena Escudero. "Sympathy for the Clone: (Post)Human Identities Enhanced by the 'Evil Science' Construct and Its Commodifying Practices in Contemporary Clone Fiction." *Between* 4.8 (2014): 1-24. Web.
- Pickering, Andrew. *The Cybernetic Brain: Sketches of Another Future*. Chicago: University of Chicago, 2010. Print.
- Piper, Andrew. "Project Ubermensch: German Intellectuals Confront Genetic Engineering." *Lingua Franca* 9 (2000): 73-77. Print.
- Pitts-Taylor, Victoria. *In the Flesh: The Cultural Politics of Body Modification*. New York: Palgrave Macmillan, 2003. Print.
- Plant, Sadie. "Beyond the Screens: Film, Cyberpunk, and Cyberfeminism." *Variant* 14 (1993): 12-17. Print.
- Prado, C. G. *Starting with Foucault: An Introduction to Genealogy*. Boulder: Westview, 1995. Print.
- Puchner, Martin. "When We Were Clones: The Novels of Kazuo Ishiguro." *Raritan Review* XXII (Spring 2008): 34-49. Web. 27 Mar. 2014.
- Rabinow, Paul, and Nikolas Rose. "Biopower Today." *BioSocieties* 1.2 (2006): 195-217. Print.
- Rai, Raghu. "No Way Out." *No Way Out*. Outlook, 7 Oct. 2002. Web. 12 Mar. 2014.
- Relke, Diana M. A. *Drones, Clones, and Alpha Babes: Retrofitting Star Trek's Humanism, Post-9/11*. Calgary, Alberta, Canada: University of Calgary, 2006. Print.
- Rickel, Jennifer. "'The Poor Remain': A Posthumanist Rethinking of Literary Humanitarianism in Indra Sinha's *Animal's People*." *ARIEL* 43.1 (Jan. 2012): 87. Print.
- Roos, Henriette. "'Not Properly Human': Literary and Cinematic Narratives about Human Harvesting." *Journal of Literary Studies* 24.3 (2008): 40-53. Web. 15 Apr. 2014.


- Ross, Charlotte. "Creating the Ideal Posthuman Body? Cyborg Sex and Gender in the Work of Buzzati, Vacca, and Ammaniti." *Italica* (June 2005): 222-47. Print.
- Sanders, Scott Russell. "Earth's Body." *The North American Review* 277.6 (1992): 45-49. *JSTOR*. Web. 9 Aug. 2015.
- Schneider, Joseph W. *Donna Haraway: Live Theory*. New York: Continuum, 2005. Print.
- Seaman, Myra J. "Becoming More (than) Human: Affective Posthumanisms, Past and Future." *Journal of Narrative Theory* 37.2, Premodern to Modern Humanisms: The BABEL Project (2007): 246-75. *JSTOR*. Web. 02 Apr. 2015.
- Shaddox, Karl. "Generic Considerations in Ishiguro's *Never Let Me Go*." *Human Rights Quarterly* 35.2 (May 2013): 448-69. *Project MUSE [Johns Hopkins UP]*. Web. 16 May 2014.
- Sharp, Lesley Alexandra. *Bodies, Commodities, and Biotechnologies: Death, Mourning, and Scientific Desire in the Realm of Human Organ Transfer*. New York: Columbia UP, 2007. Print.
- . *Strange Harvest: Organ Transplants, Denatured Bodies, and the Transformed Self*. Berkeley: U of California, 2006. Print.
- Sim, Wai-chew. *Kazuo Ishiguro*. Abingdon: Routledge, 2010. Print.
- Simons, G. L. *Are Computers Alive?: Evolution and New Life Forms*. Boston, [Mass.] Birkhäuser, 1983. Print.
- Smart, Barry. *Michel Foucault*. London: Routledge, 2002. Print.
- Snaza, Nathan. "The Failure of Humanizing Education in Kazuo Ishiguro's *Never Let Me Go*." *Lit: Literature Interpretation Theory* 26.3 (2015): 215-34. Web. 5 Nov. 2015.
- Stelarc. "Parasite Visions: Alternate, Intimate, and Involuntary Experiences." *Body Modification*. Ed. Mike Featherstone. London: SAGE, 2000. 117-28. Print.
- Squier, Susan Merrill. *Liminal Lives: Imagining the Human at the Frontiers of Biomedicine*. Durham: Duke UP, 2004. Print.
- Synder, Philip. "Natural History." *Science Fiction Journal Association* 271 (2005): 27-28. 1 Jan. 2005. Web. 19 Feb. 2015.

- Taylor, Jesse Oak. "Powers of Zero: Aggregation, Negation, and the Dimensions of Scale in Indra Sinha's *Animal's People*." *Literature and Medicine* 31.2 (2013): 177-98. *Project MUSE [Johns Hopkins UP]*. Web. 23 Sept. 2015.
- Thacker, Eugene. "Data Made Flesh: Biotechnology and the Discourse of the Posthuman." *Cultural Critique* 53.1 (2003): 72-97. Print.
- Thomas, Julian. "Archaeology's Humanism and the Materiality of the Body." *Thinking through the Body: Archaeologies of Corporeality*. Ed. Yannis Hamilakis, Mark Pluciennik, and Sarah Tarlow. New York: Kluwer Academic/Plenum, 2002. 29-47. Print.
- Tichi, Cecelia. *Embodiment of a Nation: Human Form in American Places*. Cambridge, MA: Harvard UP, 2001. Print.
- Toffoletti, Kim. *Cyborgs and Barbie Dolls: Feminism, Popular Culture and the Posthuman Body*. London: I.B. Tauris, 2007. Print.
- Tsao, T. "The Tyranny of Purpose: Religion and Biotechnology in Ishiguro's *Never Let Me Go*." *Literature and Theology* 26.2 (2012): 214-32. Print.
- Tuana, Nancy. "Viscous Porosity: Witnessing Katrin." *Material Feminisms*. Ed. Stacy Alaimo and Susan J. Hekman. Bloomington, IN: Indiana UP, 2008. 188-213. Print.
- Turner, Victor W. "Liminality Und Communitas." *Ritualtheorien* (2012): 247-58. Print.
- United States National Bioethics Advisory Commission. *Cloning Human Beings: Report and Recommendations of the National Bioethics Advisory Commission*. Rockville, MD: U.S. National Bioethics Advisory Commission, 1997. Print.
- Vint, Sherryl. *Animal Alterity: Science Fiction and the Question of the Animal*. Liverpool: Liverpool UP, 2010. Print.
- . *Bodies of Tomorrow: Technology, Subjectivity, Science Fiction*. Toronto: University of Toronto, 2007. Print.
- Vorhaus, Daniel. "Review of Kazuo Ishiguro, *Never Let Me Go*" *The American Journal of Bioethics* 7.2 (2007): 99-100. Web. 25 Apr. 2014.
- Waldby, Cathy, and Robert Mitchell. *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism*. Durham: Duke UP, 2006. Print.

- Walkowitz, Rebecca L. "Unimaginable Largeness: Kazuo Ishiguro, Translation, and the New World Literature." *NOVEL: A Forum on Fiction* 40.3, Ishiguro's Unknown Communities (2007): 216-39. *JSTOR*. Web. 02 June 2016.
- Warwick, Kevin. *I, Cyborg*. London: Century, 2002. Print.
- Wiesing, Urban. "The History of Medical Enhancement: From Restitutio Ad Integrum to Transformatio Ad Optimum?" Ed. Bert Gordjin and Ruth Chadwick. *Medical Enhancement and Posthumanity* The International Library of Ethics, Law and Technology (n.d.): 9-24. Print
- Wills, David. *Prosthesis*. Stanford, CA: Stanford UP, 1995. Print.
- Wolfe, Cary. *Critical Environments: Postmodern Theory and the Pragmatics of the Outside*. Minneapolis: U of Minnesota, 1998. Print.
- . "Flesh and Finitude: Thinking Animals in (Post)Humanist Philosophy." *Substance* 3rd ser. 37.117 (2008): 8-36. Print.
- . *What Is Posthumanism?* Minneapolis: University of Minnesota, 2010. Print.
- Wolmark, Jenny. *Aliens and Others: Science Fiction, Feminism, and Postmodernism*. Iowa City: U of Iowa, 1994. Print.
- Zylinska, Joanna. *The Ethics of Cultural Studies*. London: Continuum, 2005. Print.



## APPENDIX I: ORIGINALITY REPORTS

 <p><b>HACETTEPE ÜNİVERSİTESİ</b> <b>SOSYAL BİLİMLER ENSTİTÜSÜ</b> <b>YÜKSEK LİSANS/DOKTORA TEZ ÇALIŞMASI ORJİNALLİK RAPORU</b></p>
<p><b>HACETTEPE ÜNİVERSİTESİ</b> <b>SOSYAL BİLİMLER ENSTİTÜSÜ</b> <b>İNGİLİZ DİLİ VE EDEBİYATI ANABİLİM DALI BAŞKANLIĞI'NA</b></p> <p style="text-align: right;">Tarih: 20/02/2017</p> <p>Tez Başlığı / Konusu: Posthuman Bodies in Kazuo Ishiguro's <i>Never Let Me Go</i>, Indra Sinha's <i>Animal's People</i>, And Justina Robson's <i>Natural History</i></p> <p>Yukarıda başlığı/konusu gösterilen tez çalışmamın a) Kapak sayfası, b) Giriş, c) Ana bölümler ve d) Sonuç kısımlarından oluşan toplam 150 sayfalık kısmına ilişkin, 20/01/2017 tarihinde şahsım/tez danışmanım tarafından Turnitin adlı intihal tespit programından aşağıda belirtilen filtrelemeler uygulanarak alınmış olan orijinallik raporuna göre, tezin benzerlik oranı % 5 'tir.</p> <p>Uygulanan filtrelemeler:</p> <ol style="list-style-type: none"> <li>1- Kabul/Onay ve Bildirim sayfaları hariç,</li> <li>2- Kaynakça hariç</li> <li>3- Alıntılar hariç/dâhil</li> <li>4- 5 kelimedenden daha az örtüşme içeren metin kısımları hariç</li> </ol> <p>Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü Tez Çalışması Orijinallik Raporu Alınması ve Kullanılması Uygulama Esasları'nı inceledim ve bu Uygulama Esasları'nda belirtilen azami benzerlik oranlarına göre tez çalışmamın herhangi bir intihal içermediğini; aksinin tespit edileceği muhtemel durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.</p> <p>Gereğini saygılarımla arz ederim.</p> <p style="text-align: right;">   20/02/2017 </p> <p><b>Adı Soyadı:</b> İngiliz Dili ve Edebiyatı</p> <p><b>Öğrenci No:</b> N10146384</p> <p><b>Anabilim Dalı:</b> İngiliz Dili ve Edebiyatı</p> <p><b>Programı:</b> İngiliz Dili ve Edebiyatı</p> <p><b>Statüsü:</b> <input type="checkbox"/> Y.Lisans <input checked="" type="checkbox"/> Doktora <input type="checkbox"/> Bütünleşik Dr.</p>
<p><b><u>DANIŞMAN ONAYI</u></b></p> <p style="text-align: center;">UYGUNDUR.</p> <p style="text-align: center;">   Prof. Dr. Serpil Öpperçin  (Unvan, Ad Soyad, İmza) </p>



**HACETTEPE UNIVERSITY  
GRADUATE SCHOOL OF SOCIAL SCIENCES  
THESIS/DISSERTATION ORIGINALITY REPORT**

**HACETTEPE UNIVERSITY  
GRADUATE SCHOOL OF SOCIAL SCIENCES  
TO THE DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE**

Date: 20/02./2017

Thesis Title / Topic: Posthuman Bodies in Kazuo Ishiguro's *Never Let Me Go*, Indra Sinha's *Animal's People*, And Justina Robson's *Natural History*

According to the originality report obtained by myself/my thesis advisor by using the Turnitin plagiarism detection software and by applying the filtering options stated below on 20/01/2017 for the total of 150 pages including the a) Title Page, b) Introduction, c) Main Chapters, and d) Conclusion sections of my thesis entitled as above, the similarity index of my thesis is 5 %.

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I declare that I have carefully read Hacettepe University Graduate School of Social Sciences Guidelines for Obtaining and Using Thesis Originality Reports; that according to the maximum similarity index values specified in the Guidelines, my thesis does not include any form of plagiarism; that in any future detection of possible infringement of the regulations I accept all legal responsibility; and that all the information I have provided is correct to the best of my knowledge.


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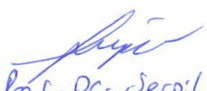
**Name Surname:** Pelin Kümbet  
**Student No:** N10146384  
**Department:** English Language and Literature  
**Program:** English Language and Literature  
**Status:**  Masters  Ph.D.  Integrated Ph.D.

**ADVISOR APPROVAL**

APPROVED.

  
Prof. Dr. Serpil Öpperman  
(Title, Name Surname, Signature)

## APPENDIX II: ETHICS BOARD WAIVER FORMS

 <div style="display: inline-block; vertical-align: middle; text-align: center;"> <p><b>HACETTEPE ÜNİVERSİTESİ</b>  <b>SOSYAL BİLİMLER ENSTİTÜSÜ</b>  <b>TEZ ÇALIŞMASI ETİK KURUL İZİN MUAFİYETİ FORMU</b></p> </div>
<p><b>HACETTEPE ÜNİVERSİTESİ</b>  <b>SOSYAL BİLİMLER ENSTİTÜSÜ</b>  <b>İNGİLİZ DİLİ VE EDEBİYATI ANABİLİM DALI BAŞKANLIĞI'NA</b></p> <p style="text-align: right;">Tarih: 20/02/2017</p> <p>Tez Başlığı / Konusu: Posthuman Bodies in Kazuo Ishiguro's <i>Never Let Me Go</i>, Indra Sinha's <i>Animal's People</i>, And Justina Robson's <i>Natural History</i></p> <p>Yukarıda başlığı/konusu gösterilen tez çalışmam:</p> <ol style="list-style-type: none"> <li>1. İnsan ve hayvan üzerinde deney niteliği taşımamaktadır,</li> <li>2. Biyolojik materyal (kan, idrar vb. biyolojik sıvılar ve numuneler) kullanılmasını gerektirmemektedir.</li> <li>3. Beden bütünlüğüne müdahale içermemektedir.</li> <li>4. Gözlemsel ve betimsel araştırma (anket, ölçek/skala çalışmaları, dosya taramaları, veri kaynakları taraması, sistem-model geliştirme çalışmaları) niteliğinde değildir.</li> </ol> <p>Hacettepe Üniversitesi Etik Kurullar ve Komisyonlarının Yönergelerini inceledim ve bunlara göre tez çalışmamın yürütülebilmesi için herhangi bir Etik Kuruldan izin alınmasına gerek olmadığını; aksi durumda doğabilecek her türlü hukuki sorumluluğu kabul ettiğimi ve yukarıda vermiş olduğum bilgilerin doğru olduğunu beyan ederim.</p> <p>Gereğini saygılarımla arz ederim.</p> <div style="text-align: right; margin-top: 20px;">   20/02/2017 </div> <div style="margin-top: 20px;"> <p><b>Adı Soyadı:</b> Pelin Kümbet</p> <p><b>Öğrenci No:</b> N10146384</p> <p><b>Anabilim Dalı:</b> İngiliz Dili ve Edebiyatı</p> <p><b>Program:</b> İngiliz Dili ve Edebiyatı</p> <p><b>Statüsü:</b> <input type="checkbox"/> Y.Lisans <input checked="" type="checkbox"/> Doktora <input type="checkbox"/> Bütünleşik Dr.</p> </div>
<p><b><u>DANIŞMAN GÖRÜŞÜ VE ONAYI</u></b></p> <div style="text-align: center; margin-top: 20px;">   Prof. Dr. Serpil Öpperman  (Unvan, Ad Soyad, İmza) </div> <div style="text-align: center; margin-top: 20px;"> <p><b>Detaylı Bilgi:</b> <a href="http://www.sosyalbilimler.hacettepe.edu.tr">http://www.sosyalbilimler.hacettepe.edu.tr</a></p> <p><b>Telefon:</b> 0-312-2976860 <b>Faks:</b> 0-3122992147 <b>E-posta:</b> <a href="mailto:sosyalbilimler@hacettepe.edu.tr">sosyalbilimler@hacettepe.edu.tr</a></p> </div>



**HACETTEPE UNIVERSITY  
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ETHICS BOARD WAIVER FORM FOR THESIS WORK**

**HACETTEPE UNIVERSITY  
GRADUATE SCHOOL OF SOCIAL SCIENCES  
ENGLISH LANGUAGE AND LITERATURE TO THE DEPARTMENT PRESIDENCY**

Date: 20/02/2017

Thesis Title / Topic: Posthuman Bodies in Kazuo Ishiguro's *Never Let Me Go*, Indra Sinha's *Animal's People*, And Justina Robson's *Natural History*

My thesis work related to the title/topic above:

1. Does not perform experimentation on animals or people.
2. Does not necessitate the use of biological material (blood, urine, biological fluids and samples, etc.).
3. Does not involve any interference of the body's integrity.
4. Is not based on observational and descriptive research (survey, measures/scales, data scanning, system-model development).

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I respectfully submit this for approval.

*Pelin Kümbet*

20/02/2017

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**Program:** English Language and Literature  
**Status:**  Masters  Ph.D.  Integrated Ph.D.

**ADVISER COMMENTS AND APPROVAL**

*Prof. Dr. Serpil Öpperman*  
 Prof. Dr. Serpil Öpperman  
 (Title, Name Surname, Signature)