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REPRESENTATIONS OF REPRODUCTIVE TECHNOLOGIES IN MARGE PIERCY'S *WOMAN ON THE EDGE OF TIME* AND FAY WELDON'S *THE CLONING OF JOANNA MAY*

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Tez Jürisi Üyeleri

Adı ve Soyadı:	**İmzası:**
1.	**……..**
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3.	**……..**

Tez Sınavı Tarihi: ……..

TÜRKİYE CUMHURİYETİ

ANKARA ÜNİVERSİTESİ

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

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(…../…../……..)

Yağmur Özge ARTUN

To my mom, who has taught me

the value of hard work and persistence

at an early age by setting an example

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TABLE OF CONTENTS

INTRODUCTION…….....1

CHAPTER I –Polarized Feminist Responses to Reproductive Technologies…….....13

1.1 Arguments of Techno-Pessimist Feminists and Ecofeminists Against Reproductive Technologies.....20

1.2 Arguments of Techno-Optimist and Xenofeminists in favour of Reproductive Technologies.....24

CHAPTER II – "Of Brooder Born": Reproductive Technologies and Social Reform in *Woman on the Edge of Time* …….....…….....…34

CHAPTER III - "A Woman Plus Repetitions": The Politics of Human Reproductive Cloning, Subjectivity and Kinship in *The Cloning of Joanna May*.....…….....……110

CONCLUSION…….....……165

WORKS CITED……..…….....……172

ÖZET…….....……179

ABSTRACT…….....…….181

INTRODUCTION

Reproduction as the building block upon which all life on Earth is contingent has historically depended on the female body for biological gestation and birth. Women have been at the center of the reproductive politics that have shaped and steered the socio-cultural and political arrangements of the notions of motherhood, marriage, family unit and gender roles since the first division of labour based on sexual difference. Sexual division of labour has historically rendered women not only the sole sex responsible for pregnancy and childbirth for the most part of their reproductive years but also for the nurturing and care-giving tasks while men have been assigned to the task of protecting, hunting and food providing[1]. However, women's historical domination and expertise in the realm of reproduction was challenged once mostly male physicians have started to replace mid-wives with the birth of obstetrics as a scientific field by the early 19th century (Roberts 61). Scientific advancements in reproductive technologies, initially developed to help infertile couples and to lower the mortality rate in pre-term deliveries, have become a subject of controversy among feminist groups. With the birth of Louise Brown, the world's first test-tube baby in 1978 successfully conceived through in-vitro fertilization and the cloning of Dolly the sheep in 1996, reproductive technologies that hint at the possibility of taking reproduction outside of the female body, have become a part of our collective reality, opening a door to new potentialities and modes of perceiving our social and genetic bonds, familial relationships and the way we connect to the world. The introduction of reproductive technologies and the ensuing heated public debates surrounding the political,

[1] Please see the following chapter for a detailed explanation of the sexual division of labour contextualized by both Nancy Chadarow and Frederick Engels.

social, philosophical, ethical, religious aspects of the issue have forced traditionally held assumptions of gender dichotomies, concepts of motherhood and family relations into a zone of contestation and conflict as well as giving way for a reconfiguration of the culturally assigned values to these concepts. An exploration of the polarized ideologies inscribed on reproductive technologies by feminist groups supporting and rejecting technological intervention into the reproductive processes of the female body is necessary for the analysis of the novels under scrutiny within the scope of this thesis, namely *Woman on the Edge of Time* (1976) and *The Cloning of Joanna May* (1989). These novels engage with the contemporary feminist anxieties over the possible invasive administration of reproductive technologies on the female body as instruments of capitalist patriarchy and the ways in which these technologies problematize or reinforce women's agency and subjectivity. Interweaving literature, culture and science, this dissertation will examine the literary appropriations of social and cultural implications of the reproductive technologies represented in selected novels drawing insights from xenofeminist and ecofeminist thought and will engage with the ways in which the intricate relationship between gender, nature and technology is turned into a diverse trope that can be studied within utopian and dystopian contexts. Although vast array of studies on ethical, socio-political, economic aspects of these technologies can be found across various academic disciplines, specific analysis of the literary investigation into the social and cultural ramifications of these reproductive technologies has been a relatively untouched territory. In this regard, this thesis aims to shed light on the intricacies and complexities of the issue of reproductive technologies presented through women's embodied experience as represented in the novels by bringing together the contemporary feminist debates on the potential emancipatory or oppressive applications of these technologies which will be explained in detail in the following chapter and the fictional projections of possible futurities in which the use of reproductive technologies

both validate and challenge the ideological viewpoints of both techno-pessimist and techno-optimist feminists.

In tandem with the beginning of the Women's Liberation Movement of the 1960s, Second Wave Feminism, the environmental movement and the growing public fascination with scientific advancements in the realm of reproduction, science fiction and speculative fiction have seen an influx of women writers who ventured to explore the genre's potential to offer alternative social settings where reproductive technologies can play a role to question and deconstruct the pre-conceived notions of womanhood, motherhood, marriage, family unit and biological kinships. In this sense, literary portrayals of these technologies have offered a site for the manifestation of hopes and fears of a society that has had no point of reference upon which to build a holistic understanding of the long-term repercussions of the technological appropriation of female procreative capacity on the social and political fabric. Science fiction and speculative fiction books and movies have been rife with alternative futurities in which reproduction outside of the female body has been analyzed within utopian and dystopian contexts. Some of these prominent literary portrayals that engage with the relationship between female body and reproductive technologies from the 1970s onwards are Nancy Freedman's *Joshua Son of None* (1973), Naomi Mitchison's *Solution Three* (1975), Pamela Sargent's *Cloned Lives* (1976), Kate Wilhelm's *Where Late the Sweet Birds Sang* (1976), David Rorvik's *In His Image: The Cloning of a Man* (1978), Ira Levin's *The Boys from Brazil* (1976), Margaret Atwood's *The Handmaid's Tale* (1985), Octavia Butler's *Dawn* (1987), Anna Wilson's *Hatching Stones* (1991), Kazuo Ishiguro's *Never Let Me Go* (2005), Carola Dibbels' *The Only Ones* (2015) and Anne Charnock's *Dreams Before the Start of Time* (2017).

Apart from the above-listed literary portrayals of the possible socio-political realities that reproductive technologies might help build, science fiction abounds with alternative futurities in which the traditional modes of reproduction are replaced with highly technological

techniques that revolutionize the ways we make sense of the dichotomies of nature/culture, artificial/organic, normal/abnormal, human/machine, self/other, familiar/ foreign. Among these depictions, this dissertation will focus on two novels, Marge Piercy's *Woman on the Edge of Time* (1976) and Fay Weldon's *The Cloning of Joanna May* (1989) on the grounds that these novels are the early examples of contemporary novels by women writers who engage with the reproductive technologies and the female body both in the dystopian and utopian contexts which offer speculative insights into the complexities that technological intervention into the womb might bring about in terms of socio-cultural and political arrangements. Both of the novels stand out among other literary portrayals as they aptly examine and bring together both the concerns of those feminists who portray the technologies developed in the capitalist patriarchal social matrix as inherently detrimental to woman, serving as instruments of male desire to manipulate, scrutinize and control the female body and the hopes of those feminists, who emphasize the emancipatory potential of the technologies that take birth and gestation outside of the female body in terms of freeing women from the embodied motherhood and the responsibilities associated with it, which believed to be limiting women's potential. Through their portrayal of dystopian societies in which insensitive and rampant use of technological power has caused ecological disasters and has rendered women devoid of bodily integrity and autonomy, both novels engage with the ecofeminist tropes by underlining that the subjugation and oppression of both woman and nature can be linked to the ventures of the capitalist patriarchal institutions while at the same time deftly avoiding the ecofeminist tendency for essentialism through the conflation of women and nature together by dint of women's reproductive capacity. The novels provide an investigation into the reconstruction of the notions of family unit and familial relations by presenting new kinship making practices that are not grounded in the biological bonds or sexual reproduction, a point of analysis that submits the novels to a xenofeminist investigation which supports the repurposing of reproductive

technologies for emancipatory ends through unlikely kinship webs outside of the traditional, biological family arrangements. Engaging with the serious and socially problematic issues of objectification of the female body, fetishization of youth and beauty, oppressive and abusive technological intervention into the reproductive body, women's threatened agency over their biological bodily processes, capitalist ownership of the technological advancements that determine the purpose of the application of technological innovations, these writers reflect on the potential destructive uses of the reproductive science but end their novels on a hopeful note. Weldon and Piercy adopt a liberal approach in which the technological advancements are portrayed neither as inherently detrimental to women nor emancipatory in themselves but as a highly politicized platform in which they serve as products of the socio-political conditions of the specific point of history in which they were developed. Upon an extensive investigation of the socio-political conditions and the ongoing debates prevalent at the time and society where the novels are produced, this thesis arrives at the point that the relationship between gender, nature and reproductive technologies is too intricately interwoven to be reduced to one single discourse but should be analyzed in parallel with the polarized, plural and multifaceted critical perspectives that the novels are steeped in.

In *Woman on the Edge of Time*, Marge Piercy presents an account of institutionalized and systematic oppression. Connie Ramos, a 37 years-old Mexican-American woman, living in 1976 New York and surviving on welfare, is abused by her male partners, family members, social institutions, the medical establishment, welfare workers, and school authorities. Without a proper education or occupation to depend on, Connie is pushed to the margins of the society and frequently victimized by an overpowered social structure that discriminates based on her sexual, racial and economic status. Overwhelmed by grief upon the death of her husband, Connie takes to drinking and physically injures her daughter on one occasion which results in losing her daughter to child protection services. One day, Connie finds her niece Dolly at her

door trying to escape from her 'pimp' Geraldo who tries to force Dolly into an involuntary abortion. Connie, in an attempt to protect her niece resorts to violence and is immediately institutionalized in a mental hospital for repetitive violent behaviour. Upon admission, Connie is exposed to various mentally, physically and psychologically abusive and invasive treatments by the hospital staff and doctors. They enlist her for certain scientific experiments that aim to control the patients' aggressive thoughts and behavior through a remote controlled electro-transmitter inserted into patients' brains. During her incarceration, Connie is contacted by Luciente, her guide to the futuristic utopian community of Mattapoisett, and telepathically transports to the year 2137. Through Mattapoisett, Piercy offers the reader a map to a future where capitalist patriarchy has been abolished, hierarchical power relations, class struggles, ecological disruption and gender roles have been eliminated through a series of socio-political reforms and revolutions. The most important reform that reshapes the social fabric and reconstruct the traditional concepts of motherhood, marriage, binary idea of gender, familial relations, romantic relationships in these utopian future is the 'brooder' technology. Through this technology, babies are fertilized and incubated in 'birthing chambers', completely outside of the female maternal body. Asexual, de-biologized, de-gendered motherhood is portrayed as a liberating techno-scientific innovation for women, leveling the playing field for men and woman. Connie's New York of 1976 and utopian society of Mattapoisett in 2137, presented in stark contrast, are followed by the juxtaposition of a third timeline into which Connie accidentally transports herself and meets Gildina. This third alternative social setting is portrayed as a nightmarish dystopian future where environmental destruction, economic class struggle, social stratification, women's victimization and objectification are deeper and more institutionalized while the democratic governments are overthrown to be replaced with the 'multis', the ultimate symbols of authoritarian corporate capitalism. These different timelines are presented as three alternative societies that might be conceived by the actions or the

inactions of the characters in the novel and, in relation, the reader. Piercy's handling of the relationship between woman, technology and nature in *Woman on the Edge of Time* overlaps with the core principles of ecofeminist thought, thus opening a fertile ground for an ecofeminist analysis. The abusive and invasive application of reproductive technologies in Connie's 1976 New York as exemplified through the female characters in the novel, namely, Connie, Mariana, Inez, Dolly who have been subjected to nonconsensual, misinformed and mostly unnecessary intervention to the female body and the technological manipulation of the female body in Gildina's dystopian society will be analyzed in a critical dialogue with the ecofeminists' approach to the reproductive technologies. Through the portrayal of the ecological devastation brought about by the capitalist economic ventures as well as unchecked technological domination over nature in both Gildina's and Connie's societies, Piercy underlines the ecofeminist premise that the domination and oppression of both woman and nature is intrinsically connected to the capitalist patriarchal socio-political structure. However, she presents the utopian town of Mattapoisett to show potential emancipatory ends the technological progress can be employed to achieve. Mattapoisett can be read as the fictional exploration of the theories and ideas put forward by Shulamith Firestone in her *Dialectic of Sex*[2]. Firestone encouraged the application of reproductive technologies to emancipate women from their reproductive function which she perceived as the source of women's social, economic and political marginalization and victimization. Piercy's fictional community Mattapoisett will be read in dialogue with Firestone's *Dialectic of Sex*, in which she showcases the utopian elements that can be brought into existence once the bond between women and nature is broken and capitalist, consumerist socio-economic order is eliminated. The changes

[2] Although I was unable to find any direct acknowledgement from Marge Piercy that she used Firestone's ideas and theories as the basis upon which to build her fictional town of Mattapoiset, many critics such as Carla Lam, Sarah Mary Lawrence, Sam McBean, Joyce Shaw Peterson, Patriacia Melzer, Maria Aline Salgueiro Seabra Ferreira, Bronwen Calvert, Tom Moylan, Anne Donchin, Kathy Rudy, Joan Haran...etc claim that Piercy's *Woman on the Edge of Time* (1976) is inspired by Firestone if not written as a direct response to Firestone's ideas in *The Dialectic of Sex* (1970).

in the traditional mode of biological reproduction in Piercy's text lead to the creation of a post-gender, post-natural, post-hierarchical society, submitting the traditional modes of kinship bonds grounded in biological reproduction into a process of rewriting, which will be explored and examined in parallel with xenofeminist thought. These unusual kinship modes will be analyzed in relation to Donna Haraway's "myth of the cyborg", defined as a creature born to the marriage of technology and human organism that reflects the ontological status of the residents of Mattapoisett.

Fay Weldon's *The Cloning of Joanna May* gives us a dystopian scenario of the possible consequences of techno-scientific manipulation of the female body through uninformed, nonconsensual application of the reproductive technologies by the self-serving, profit-oriented, misogynist businessmen and male scientists who seek to utilize these technologies for their solipsistic ends, rendering women passive and disempowered test subjects in the process. *The Cloning of Joanna May* is set in the aftermath of the Chernobyl disaster, a specific point in time where the explosion in the Chernobyl nuclear plant emitted large amount of radioactive material into the air, which shattered the credibility of the scientists and governments who claimed safe mastery over technology. The fear and threat of poisonous air evoked public backlash against the construction of the nuclear power plants and the funds that go into the scientific research into generating new technologies in general. Coinciding with the rise of a heated public debate on IVF technologies, ectogenetic and gene cloning research, Weldon's narrative projects the contemporary feminist anxieties of women's lack of agency, autonomy and reproductive freedom over their biological processes and the question of identity brought to the fore with the technological multiplication of the body. These issues heavy with socio-political implications as represented in the novel will be analyzed within the discourse of the techno-pessimist feminists and ecofeminists' approach to the reproductive technologies. Weaving together the concerns over the ecological disasters and women's oppression within the male-dominated

fields of science and technology, Weldon shows the impact of the ecological failures caused by the large corporates run by privileged white male individuals on women's bodily integrity. The capitalist patriarchy that consistently endeavours to perpetuate the existing power structures by dominating and exploiting nature to maximize the profit, targets women's bodies and their reproductive processes. The man/technology, woman/nature dualisms inherent in the ecofeminist thinking finds its echo in the narrative through the conflation of woman and nature as being chaotic, irrational, haphazard, hysterical, "absurd" and in need of guidance and interference of male science. The novel problematizes the technology of human reproductive cloning from the viewpoint of Joanna May, a sixty- year-old divorcee who has always wanted to have children but was prevented by her industry-tycoon husband, Carl May who has secretly cloned Joanna May without her consent at the age of thirty as a punishment for her perceived disobedience and as a way to multiply her love for him but hasn't disclosed that information until Joanna is sixty years of age. Carl May's problematic childhood in which he has been denied parental love and affection and chained up like an animal will be read in reference to the Frankenstein's creature who has suffered from a similar parental rejection which in turn, has resulted in his transformation from the victimized creature to the murderous oppressor, which resonates with Carl May's abusive and criminal acts. Weldon, through Carl May's attempt to dominate both nature and female body gestures at a womb envy in which male envy of the female reproductive capacity leads to the appropriation of the procreative power through the scientific method, an argument underlined in the ecofeminist and techno-pessimist feminists' denunciation of the use of reproductive technologies.

Joanna's confrontation with her fully-grown four clones and her ambiguous attitude towards them is another central concern of the narrative. *The Cloning of Joanna May* offers a site for deep psychological analysis of the individual whose bodily, mental and emotional integrity is brought under threat through her confrontation with the fact that she has been

multiplied into four more versions of herself. Joanna's disintegration of identity and sense of originality in the face of her clone selves and her attempts to recreate a stable, coherent self will be read in reference to the psychoanalytical approach in tandem with the theories of Freud, Zizek and Lacan that present speculative insights into the traumatic experience of the subject coming face to face with a clone/double. Joanna's confounding status as to how to perceive these four familiar but also unknown individuals can be read in the context of postmodern familial bonds which are not grounded in natural biological bonds but are technologically enforced familiarities, a concept underlined by Donna Haraway and within the xenofeminist manifesto. Weldon's new kinship mode, which will be called "clonehood" within the concept of this thesis, consists of sisterhood and multiplication of singularity rather that depending on biological mode of reproduction. In the course of the novel, Weldon turns the potentially destructive employment of the human cloning technology into a source of empowerment through which the protagonist reclaims and reconstructs her individual identity and finds female solidarity in their shared clonehood. The concepts of pregnancy, motherhood, kinship, artificial and biological reproduction, cloning as an alternative mode of reproduction are re-examined by Fay Weldon in light of their far-reaching moral and social ramifications questioned and subverted by the rich, complex characters of *The Cloning of Joanna May.*

Weldon and Piercy aptly incorporate the polarized and multifaceted ideologies and socio-political meanings inscribed on reproductive technologies by different fractions of feminists who support or reject the use of these technologies. The plurality of the critical perspective, discourses and debates surrounding reproductive technologies comply with the plurality of the voices, identities and alternative social realities presented in both texts, finding its resonance in the narrative strategies of the novels.

In *Woman on the Edge of Time*, the narrative voice is the third person but limited to Connie Ramos' point of view. This technique, apart from helping the reader sympathize with

Connie's case by witnessing her oppression at first hand, leaves the possibility of a utopian or dystopian future open. By allowing the narration to be focalized by Connie, Piercy puts the reader at the position to decide if Connie's time travelling adventures are factual accounts or a product of her imagination rather than presenting an omniscient narrator who would draw the line between fact and fantasy from the beginning of the story. Piercy employs juxtaposition as a narrative strategy to cross the boundaries between science fiction and social realism. The juxtaposition of Mattapoiset, Connie's society and Gildina's dystopian future composes a plurality of alternative futurities and social settings where Connie meets various characters that speaks to different sides of her personality. The plurality of identities and voices Connie encounters in these other social realities can be read as reflections of Connie's repressed selves, the possible versions that she could have been under different socio-political and cultural circumstances. Within the plurality of her possible selves, Connie comes to realize her individual importance and role in bringing societal change and a better future into existence. The concept of plurality of identities, voices that culminates in a unified self is turned into a narrative strategy by Weldon in the *Cloning of Joanna May* as well. Weldon's narrative voice switches back and forth between a third-person, omniscient narrator that focuses on Joanna, Carl, Bethany, each of the clones separately and Joanna May's autodiegetic narration which takes up eight chapters of the book including the first and last chapters. Weldon's narrative choice is emblematic of Joanna May's crisis of identity and individuality throughout the novel. Joanna's agency, singularity, bodily integrity and psychological unity is threatened both by Carl May's dominant presence in her life and by the confrontation with the fact that she has been multiplied into four more versions of herself without her consent. As she acknowledges her clone selves who are metaphorical fragments of her identity and repressed others, she puts an end to her psychological fragmentation and finds unity and wholeness within the plurality of women in the form of female solidarity. This can be read in parallel with Weldon's narrative

technique. As Joanna manages to re-create her individual identity by wielding the power of female solidarity and recognizing the plurality of her self, she reclaims her agency and her voice that reflects back on her story in the form of a first person narrator. Weldon's technique allows Joanna to prove her dominant power and agency over other characters in the book. Although both writers' narrative strategies draw from a plurality of alternative social settings, identities and voices that leads to a unified, conscious self, the tone they employ to deliver their fictional projections differs. Marge Piercy undertakes the subject in question in a more serious tone, providing the reader with a blueprint on how to achieve the utopian society of Mattapoisett that is built by the political activism, organized resistance to the capitalist patriarchy, ecological destruction, power hierarchies, and gender dimorphism. Piercy's account of Connie and Gildina's dystopian societies serves as a warning to urge the reader towards action. Weldon's tone can be characterized as more humorous and ironic in terms of turning the attempts of power hungry, profit-driven businessmen and "mad male scientists" to dominate both nature and women into a revenge story of a woman who appropriates her victimization to empower and recreate herself. The self-endowed power and god-like authority of the men who combine the financial capacity and scientific expertise is satirized by Weldon through their repeated failure to bring the products of their technological power under control.

The theoretical framework and the heated debates which helped shape ideologies on reproductive technologies and allowed the selected writers to provide insights on the socio-political repercussions of the technological innovations that have not yet taken place will be provided in the following chapter of this thesis. An extensive analysis of Marge Piercy's *Woman on the Edge of Time* in relation to the relationship between woman, nature and reproductive technologies will be provided in the chapter two of this thesis, which will be followed by the analysis of Fay Weldon's *The Cloning of Joanna May* in chapter three.

CHAPTER I

Polarized Feminist Responses to Reproductive Technologies

Reproduction as one of the key properties for the continuation of life on Earth has historically been a focal point around which the social organization of the relationship between man and woman, parent and child, society and family unit has been formulated and determined. The notions of reproduction, pregnancy, childbirth, child care have been predominantly situated within women's domain. Since conception occurs naturally within the female body, biological embodiment of women has been pivotal to the politics of reproduction. In this regard, conceptualization of reproduction is fundamental to understanding women's socio-political positioning in the historical process. Mothering as a social, economic, political role traditionally undertaken by women is central to the family structure dominant in traditional, heteronormative, Western cultural paradigm. The definitions of what constitutes a family as the socio-cultural unit has emerged in relation to the social reproductive processes, which was informed by the sex-based division of labour. Social scientists such as Nancy Chodorow, Mary O'Brien, Adrienne Rich, Frederich Engels have investigated sexual division of labour, the institution of motherhood, and cultural aspects of women's reproductive capacities in order to theorize the roots of women's historical oppression. Nancy Chodorow, in her book *The Reproduction of Mothering* (1978), attempts to analyze the ideological and historical signification of the sexual division of labour and puts women's mothering through a dynamic examination in the historical, psychological, sociological frameworks. She explains the sexual division of labour through the "functional-cum-bioevolutionary" (17) perspective. This account of women's mothering traces the roots of the sexual division of labour to pre-industrial, pre-capitalist hunter-gatherer societies in which men's comparatively greater "strength", "aggressiveness", "speed" made it more advantageous for them to undertake the responsibility

of hunting and providing food while women's responsibility became gathering, giving birth and rearing children. Taking into consideration the high infant mortality rate within these small groups, women needed to be gestating or nursing for the most part of their reproductive years for the survival of the group, which made it dangerous and inefficient for them to hunt or to stray far from the house where they nursed their infants (17). Chodorow proposes that women's mothering should be analyzed in relation to the social organization of gender and protests how most social scientists consider the sexual division of labour as the natural result of women's capacity to gestate, give birth and lactate, without taking an issue with the socio-cultural organization of this sexual difference, which reinforces the idea of sexual dimorphism in the social structure (14). She contends;

> It is not enough today to give an evolutionary-functionalist explanation for women's mothering, then, unless we include in our functional account the reproduction of a particular social organization, beyond species survival or unmediated technological requisites. This organization includes male dominance, a particular family system, and women's dependence on men's income. We should see the original sexual division of labour as a once necessary social form used by and modified by other social forms as these have developed and changed. The sexual division of labour in which women mother has new meaning and functions, and is no longer explicable as an outcome of biology or of the requirement of survival. (21)

According to this analysis, the sexual division of labour starts with the women's capacity to gestate, bear and nurse children as opposed to men's lack of this capacity rather than women's lack of physical qualities required for hunting. It is the social contruction of this biological fact that marks women's exlusive undertaking of mothering and their oppression in the historical development of sexual differentiation. Through a similar point of analysis, Frederick Engels, whose insights are intrinsic to Chodorow's analysis of motherhood and women's socio-political

positioning, touches upon the division of sex-based labour in light of the contruction of the family unit. Drawing upon the insights and observations of American anthropologist Lewis H. Morgan on the Native American modes of kinship by offering an analysis of the concept of family through its historical development, Engels in his book, titled *The Origins of the Family, Private Property and the State* (1884), recognizes the family unit as the earliest form of patriarchal manifestation of women's oppression. Engels traces the etymological origins of the word "family" to demonstrate how the concept of family has always been grounded in hierarchical power relations and domination as follows;

> The original meaning of the word "family" (familia) is not that compound of sentimentality and domestic strife which forms the ideal of the present-day philistine; among the Romans it did not at first even refer to the married pair and their children, but only to the slaves. Famulus means domestic slave, and familia is the total number of slaves belonging to one man....The term was invented by the Romans to denote a new social organism, whose head ruled over wife and children and a number of slaves, and was invested under Roman paternal power with rights of life and death over them all. (31)

Regarding sexual division of labour as only a natural process resulted from women's child bearing capacities, Engels attempts to conceptualize the correlation among sexual division of labour, the concepts of monogamy, family, private property and women's subjugation in the light of the historical development of human societies. Troping on the Marxist line of investigation, Engels argues that women's oppression could be linked to the institutionalization of the private property. He puts forward that the sexual division of labour within the family unit at the time required the man to provide food for the survival of the family members thus he owned the "instruments of labour" (29), which would be distributed among the members of his own "gen" or clan upon his death. Since polyandry and group marriage were common practices

at the time, children's biological lineage could only be known for certain on the mother's side, thus children belonged to the clan of the mother. This social arrangement was regulated by some kind of "mother-right" (30), the children could only inherit from their mother's clan and children of the dead man cannot inherit from him since they did not belong to his clan. This matrilineal lineage came to an end when the increase in wealth put the man in a stronger and respectable position within the family as the owner of the instruments of labour. However, in order for his wealth to be passed down to his offsprings, his paternity had to be warranted, which led monogamy to be introduced into the society. Strict monogamy had to be observed by the female members to leave no doubts as to the father's identity. Of course, this code of conduct did not necessitate fidelity on the man's part. Patrilineal descent has replaced matrilineal descent though transfer of the children from their mother's clan to the clan of their father. Gentil or family name was given to the children so that they can be included within their father's clan, which is a custom still practiced in contemporary societies today (29-30). Engels's genealogy of monogamy and family in relation to the emergence of private property indicates that cultural and economic organization of reproduction has historically set in motion the dynamics that still efficiently reinforce women's oppression and exploitation. Engels concludes, "The overthrow of mother-right was the world historical defeat of the female sex. The man took command in the home also; the woman was degraded and reduced to servitude, she became the slave of his lust and a mere instrument for the production of children" (30). Engels's account provides a historicization of how biological difference between the sexes alone is not accountable for the economic, social, political subjugation of women but rather these differences have been instrumentalized in confining the female sex to unequal, hierarchical power dynamics within and outside the institution of family. In this regard women's socio-cultural role as mothers can be characterized as a historical product of patriarchal ideologies.

In the light of the above-chronicled historical narrative of the relationship between women and procreation, one might say that the notions of reproduction, gestation, child birth, nursing and childcare could not be theorized or considered separate from the female embodiment and female dominated cultural paradigm. However, twentieth century scientific research and discoveries have opened new doors and possibilities for the way we perceive the relationship between female embodiment and reproduction. Sigmund Freud once notoriously said, "For women, biology is destiny" (qtd. in Gelfand 5); however, the proliferation of reproductive technologies might challenge this biological determinism through providing new biological and social choices in the realm of procreation. Although this dissertation is not concerned with the know-how and scientific details of the techniques through which reproductive processes are revolutionized, an exploration of the socio-cultural study on and reactions to the developments in the scientific field of reproduction is important to note here as polarized feminist approaches to these technologies will be employed within the scope of this thesis to analyze their literary representations in the selected novels.

The past few decades have witnessed an unprecedented public attention to the technological advancements in reproduction and pregnancy. Starting with the English evolutionary biologist JBS Haldane who coined the word ectogenesis to refer to pregnancy that occurs in artificial womb in his science fiction essay titled "Daedalus, or, Science and the Future" in 1924, studies on human reproductive technologies have provided sufficient insight to capture our cultural imagination. Although most scientists and gynecologists dismissed the idea of gestation and birth outside of female body as mere fantasies suitable for science fiction genre, British medical researchers Dr. Robert Edwards and Dr. Patrick Steptoe focused their research on infertility and conception outside the body as early as the1950s. By the 1970s, they

have covered substantial ground in the technique of in vitro fertilization[3] which finally yielded its first successful fruit in 1978. Louise Brown became the first person to be conceived though in vitro fertilization on July 25th of 1978. The extensive media coverage of the world's first "test-tube" baby Louise Brown has turned this scientific event into a public sensation and brought the accomplishment under heavy scrutiny not only of the experts in the scientific field but also of authorities from various academic disciplines (Van Dyck 61-62). The realization that new technologies in reproduction can reshape, challenge and subvert the traditionally held conceptions of pregnancy, childbirth, mothering, marriage and institution of family have led to heated public debates. Ethical, religious, philosophical, sociological aspects of the issue have pervaded the discussions around these progressive steps initially aimed to help the infertile couples. In a short period of time, other techniques and methods of alternative reproductive technologies have expanded at an accelerated speed, leaving the public baffled with underlying questions and speculations.

Many have discussed that the research of Dr. Robert Edwards and Dr. Patrick Steptoe has been leading the future of reproduction from in vitro fertilization to in vitro gestation and motherless births and even to cloning. The public fascination with the disembodied reproduction technologies was fired when Scottish scientists announced their first successful cloning of Dolly the sheep in 1997. The visions of cloning mostly confined to science fiction movie plots up to that point were transmuted into newspaper headlines. The announcement caused medical curiosity and moral outrage among the religious groups and sceptics. Doctors, scientists, businessmen, feminists, mothers, ethicists, anthropologists, theorists, academics have all been participants in this public debate and have attempted to provide different vantage points to filter this phenomenon through and inscribe different meanings, interpretations of

[3] In vitro fertilization (IVF), a technique through which sperm and eggs are collected from the female and male body, artificially fertilized in clinical environment, and the resulting embryos are implanted back to the woman's uterus.

these technologies that would inform the policies on the subject. Ten days after Dolly's birth, the United States temporarily cut the "federal funds" going into the research on cloning. This order did not mean that the government had decided that cloning was against social and moral values or legal regulations but it was passed because the legislators and general public were to be provided with the necessary amount of time to ruminate on the implications of this cutting edge technology on the social, political and biological paradigms (Gelfand 1). This precaution is emblematic of horror and surprise that reproductive technologies have evoked in society. In order to completely embrace these technologies, the society has to come to terms with the fact that a complete reconfiguration of gender dichotomies, cultural meanings of the concepts of motherhood and institution of family, economic and psychological effects of sexual division of labour is necessary. The borders between the binaries of nature/culture, organic/artificial, natural/unnatural, human/non-human, self/other have to be blurred, trespassed and radically rewritten.

Media and social channels are significant agents in shaping the public opinion and policies on the given issues but they cannot be separated from the ideologies that financially and politically support them. Bioethicist Leon Kass reflects on the reproductive advancements with a cautionary note:

> But this movement from natural darkness to artificial light has the most profound implications. What we are considering, really, are not merely new ways of beginning individual human lives but also, and this is far more important, new ways of life and new ways of viewing life and the nature of man. (48)

Reproduction is not only a way to bring people into the world but it carries with it a set of values and modes of creating social bondage through biological links. Modifications on the ways human beings connect to each other will radically alter the way we perceive and arrange our social relations and way of life. On this note, it is time to bring into the discussion the feminist

approach to these technologies. As discussed earlier, the historical processes of assigning specific roles and division of labour between men and women have been shaped and determined mostly by men justifying this differentiation on the grounds that it is based in women's nature with regard to their reproductive functions. The notions of maternity and womanhood require redefining in the face of reproductive technologies and the question as to who will inscribe these new meanings is intricately connected to the socio-political conditions these technologies arise from. As Jose Van Dyck suggests "Scientific projects are political and social arrangements embedded in a society that gives rise to, or disapproves of, their legitimacy" (12). In this regard, feminists have been suspicious of the use and purpose of these new reproductive technologies that have the potential to be both liberating and oppressive for women. In the public discourse surrounding the social implication of reproductive technologies, medical authorities and feminists have been the most vocal group in raising their concerns and arguments for and against the technological intervention into women's natural bodily processes.

1.1 Arguments of Techno-Pessimist Feminists and Ecofeminists against Reproductive Technologies

The issue of reproductive technologies has caused oppositional voices and division among feminist groups who either have supported or rejected the application of these technologies on the female body. The fraction of feminists who radically opposed the new reproductive technologies, rejecting the process of de-naturalization of reproduction has considered the technological intervention into the reproductive processes as a threat to women's reproductive freedom and bodily autonomy. This group of feminists will be called techno-pessimist feminists for the rest of this thesis. Associating the instruments of technological developments with the male desire to screen and regulate the female body, techno-pessimist feminists react against the replacement of woman's natural reproductive processes with their "unnatural" mediation by technology and medical science (Lam 42-43). They argue that these

technologies should be regarded as a political issue rather than a medical breakthrough to be heralded and that they should be analyzed in the political, social contexts within which they have emerged. In this logic, the scientific and medical establishment that produces these technological innovations and advancements are heavily influenced by the patriarchal ideologies and norms, therefore any technology which would be produced in this specific historical context cannot be objective but will be inherently patriarchal, aimed to maintain the asymmetrical balance of power politically entrenched in the capitalist patriarchal system (Arditti, Klein, Minden, xii). Another point of resistance to reproductive technologies by feminists is situated in the discourse of bodily autonomy. An individual's control and autonomy over his/her body is intrinsic to their sense of self, agency and subjectivity. Technologically assisted reproduction is believed to be rendering women targets of technological manipulation either through painful surgical interventions women have to undergo for the IVF treatment or the process of obtaining eggs from women's bodies for ectogenetic research, breaching their physical and individual integrity in the process. Thus, they regard this process as an exploitation of the female body whereby the female body is turned into an experimental object under the pretense of benevolence and scientific achievement (Lam 48).

Techno-pessimist feminists argue that full control and access over the reproductive body and sexuality is integral to women's empowerment. In line with this, Adrienne Rich in her book *Of Woman Born: Institution and Experience of Motherhood* celebrates the female body's procreative function as a source of strength and joy, viewing the act of giving birth as an expression of difference from men and act of reclaiming power. She criticizes the medicalization of birth and gestation by modern science as well and urges women to react against the technologies that violate women's bodily integrity.

> We need to imagine a world in which every woman is the presiding genius of her own body. In such a world women will truly create new life, bringing forth not only children

(if and as we choose) but the visions, and the thinking, necessary to sustain, console and alter human existence—a new relationship to the universe. (285–286)

As expressed in the excerpt, women's autonomy and agency upon the reproductive body is an important parameter that determines the ways in which women connect to the world and define their individual and collective identity. The bodily autonomy argument is inspired by ecofeminist approach that underlines the dualistic view of the man/technology, woman/nature association. Ecofeminism has influenced and shaped the techno-pessimist feminists' take on the reproductive technologies as instruments of abusive intervention into the female body. As a critical approach which emerged out of a feminist activism that rose against proliferation of nuclear power, militarism and hierarchical power relations between the sexes in the mid-1970s (Gaard 28), the ecofeminist thought entails that institutions such as schools, hospitals, media, religious outlets that regulate and maintain the society are inherently capitalist and patriarchal. This market-oriented world order that aims to maintain the status quo power relations is driven by male-dominated corporates and targets maximum exploitation of women and ecosystems. Emphasizing women's reproductive capacity as the focus of this exploitation and subordination, Maria Mies states that the instruments of reproductive technologies have been employed to dehumanize and fragment women into their bodily parts and functions in the process of scientific inquiry, violating human dignity and integrity (186). Ecofeminist thought draws mainly from the traditionally held assumption that women, through their natural bodily processes are in a more intimate relationship with nature. Women, the female body, socially attributed feminine characteristics and female "natural" reproductive capacities can be associated with nature. Naturalization of the female bodily functions and feminization of nature serve to the same essentialist construction of female identity. Like (mother) Nature, women are traditionally thought to be creative, nurturing, life-generating, unpredictable, wild and at the same time at the mercy of man's rational capacities, waiting to be subdued by man-made

technology. This man/technology, women/nature analogy lies at the heart of ecofeminist plight to fight capitalist patriarchy to liberate both women and nature from exploitation. Ecofeminist approach to reproductive technologies are informed by the same essentialist perspective that biological processes and natural reproduction are a part of nature, therefore, technologies that aim to denaturalize this process are inherently anti-women, these technologies seek to alienate women from the product of their reproductive labour and alienate the female body from its natural function, thus attempting to break the bond between women and nature. Reproductive technologies are seen as appropriation of male desire to take charge of women's capacity to create life and severe the connection between women and nature. As Robyn Rowland in her book, Living Laboratories contends:

> Reproductive technology concerns itself with the control and manipulation of women's bodies; it is based on an ideological assumption that woman equals (inefficient) nature and that male medicine can do better. It constantly fragments and dismembers women during this process, and it uses women as experimental subjects, without obtaining their educated consent. (215)

As expressed above, ecofeminist thought underlines that relocation of the control and agency from the pregnant women to the medical establishment during the process of technologically mediated gestation and child-birth render woman vulnerable to manipulation and severs the connection between the mother and the baby. In fact, ecofeminism has been criticized as being essentialist and relegating women to their biology while at the same time attempting to destabilize the hierarchical power dynamics between the sexes. In this regard, ecofeminist thought that has emerged in parallel with green movement and second wave feminism of the 1970s, accepts the binary idea of gender. It attempts to subvert the Enlightenment notion of male/female, mind/body dualism that equates women with body and men with mind by

affirming that the feminine connection to nature is superior to men/mind connection, thus reinforcing the same patriarchal dualism it wishes to destroy (Lublin 47).

The argument of techno-pessimist feminists that reproductive technologies reduce women to their bodily parts and subject them to painful experimentation and processes whose long term side effects have not been comprehensively studied constitute only one part of the opposition against reproductive technologies as these technologies vary in their technique and application to women's bodies. Research on ectogenesis aims to provide means and methods to render women's bodies irrelevant in the domain of reproduction, which cannot be opposed on the basis that it damages the female body. Bringing fertilization, gestation and birth outside the female body has not been regarded with outrage and radical resistance by every feminist group.

1.2 Arguments of Techno-Optimist Feminists and Xenofeminists in favour of Reproductive Technologies

In contrast to the arguments put forward by the techno-pessimist feminists as well as ecofeminists, there is a fraction of feminists who supports the development of technological instruments and their widespread use to take over the reproductive function build their argument on the premise that reproduction has been historically oppressive for women and has been an effective agent in patriarchal attempt to restrict women to the domestic sphere, cut women out of the economic labour force, reduce them to their mothering role, confine them to a body image consisting of beauty standards explained by evolutionary theory as best adopted for successful reproduction. These opposing opinions on women's reproductive functions shape the polarized ideologies imposed on the reproductive technologies, opening a platform for exploration into the women's embodied experience of pregnancy and childbirth and bio-technological developments, which might shed light on the complexities of the issue. This fraction of the feminists will be referred as techno-optimist feminists for the rest of this thesis. As discussed

at the beginning of this chapter, reproduction has been the driving force of social structuring of the sexual division of labour which marked the socio-political and economic oppression of the female sex. Although blaming the biology for the social values and signification assigned to the biological facts would be a reductionist evaluation of history, radical feminists believe that achieving an egalitarian society would be easier if men and women's participation in the reproduction process is placed on an equal footing. Advocates of reproductive technologies maintain that in order to overcome the power dynamics that operate hierarchically between the sexes, we need to transcend the natural bodily boundaries that have generated women's subjugation. The boundaries of man/woman, technological/biological, artificial/natural should be trespassed, reproduction should be 'de-feminized' and emptied out of its sexist implications for women (Lam 53). Female embodiment's integral status to pre-creation of human kind is perceived as the source of female oppression and standing in the way of women's opportunity to live up to their full potential. According to these radical feminists, we need to transcend the patriarchal dualisms and binary concept of the sexes to greet technologies of reproduction for their potential to accentuate multiplication of identities beyond the biological constraints. One reason why the technologically facilitated birth and gestation could be perceived horrifying and unacceptable to some feminists is because women's role as mothers has been culturally valorized and consecrated which, in turn, made mothering an integral part of female ontology as well as subjectivity. Giving up on the traditional definition of motherhood might be perceived as sacrificing a part of women's identity and relinquishing the little power women have in the patriarchal socio-cultural matrix. According to techno-optimist feminists, these futuristic technologies, given that women themselves are included in the scientific establishment to be active agents in the decision-making process on their utilization, will revolutionize the way human societies are organized based on the biological sexual differences and will submit the traditional concepts of family and motherhood to radical revisions towards a more liberating

model for women. As Maria Aline Salgueiro Seabra Ferreira, in her book *I am the Other: Literary Negotiations of Human Cloning* states:

> I believe these alterations, which would be operative at both a biological and a psychological level, would slowly create the conditions for similar job and career opportunities for both sexes, since women would not be limited by their anatomy to becoming mothers only by following the traditional modes of reproduction unless they so chose. The gradual implementation of these new techniques would inevitably create a very different perception of parenting potential, which, in turn, would lead to a wholly distinct psychological map for humanity. This new context would no longer be articulated in terms of Freudian explanatory principles as far as human traumas, drives, perversions, and taboos are concerned but would come to reflect radically altered family, social, political, and urban circumstances. (215)

These optimistic visions of the future have given impetus to radical feminists to contextualize a society freed from women's subjugation and socio-historical restrictions. Shulamith Firestone through her book *The Dialectic of Sex: The Case for Feminist Revolution* (1970) was the first to publicly embrace the reproductive technologies, advocating ectogenetic reproduction that takes place completely outside of the biological body. Firestone considered women's capacity to give birth as their ultimate social undoing and believed that artificial conception will pave the way for women's economic independence and social and political equality. Building upon Simone de Beauvoir's *The Second Sex*, Firestone did not only view organized patriarchy and its institutional power as the driving force behind the women's 'otherness' and subjugation as Simone de Beauvoir did, but traced the emergence of patriarchy to the biological status of women. She placed the elimination of sexual difference within a similar line of thought to the Marxist prescription of elimination of economic power struggles, stating:

> And just as the end goal of socialist revolution was not only the elimination of the economic class privilege but of the economic class distinction itself, so the end goal of feminist revolution must be, unlike that of the first feminist movement, not just the elimination of male privilege but of the sex distinction itself: genital differences between human beings would no longer matter culturally. (11)

As the extract points out, the means of technological reproduction should be articulated in a way that is motivated by the elimination of biological differences. Just as proletariat should seize the means of production to free themselves from the tyranny of the economic hierarchical class system, women need to be freed from the tyranny of their biology. In this context, Firestone believed that women should be liberated not only from the patriarchal organization of society but also from their own embodiment in relation to reproduction, which, as she attested, brought about the structural unit of family within which women's 'second-class' status has been reinforced. She believed that "biological family is an inherently unequal power distribution" (8) and in need of redefinitions through instruments of technological reproduction. Firestone underscores the perceived emancipatory implications of disembodied reproduction as follows;

> The reproduction of the species by one sex for the benefit of both would be replaced by (at least the option of) artificial reproduction: children would be born to both sexes equally, or independently of either, however one chooses to look at it; the dependence of the child on the mother (and vice versa) would give way to a greatly shortened dependence on a small group of others in general, and any remaining inferiority to adults in physical strength would be compensated for culturally. The division of labour would be ended by the elimination of labour altogether (through cybernetics). The tyranny of the biological family would be broken (11).

Firestone emphasized the emancipatory nature of the technological fix in the context of reproduction, regarding gestation not as a sacramental ritual undertaken by women and necessary for the continuation of humankind but as a clinical condition that damages women's bodies. Firestone's devaluation of the gestation and childbirth comes in stark contrast to ecofeminist thinkers' position on women's almost divine experience of connecting to nature through motherhood and childbirth as she valiantly declares childbirth to be "like shitting a pumpkin" (199). Firestone can be criticized in her approach for being too optimistic and hopeful, disregarding the fact that any technology that comes out of a specific point of history will bear the imprint of socio-political context into which they were born. She tends to be dismissive of the idea that it is not the biological difference per se that creates the oppression and social implications of the biological difference between men and women but the social organization based on those biological difference is the driving force of women's subjugation. Firestone defines nature by its cultural appropriation while she could prescribe a social organization that can deconstruct and reconfigure the social exploitation of the natural process. Her approach to do away with biological difference can be criticized as too fanatical to be entertained for many non-radical feminists.

Shulamith Firestone's revolutionary ideas on technology and feminism presented in her *Dialectic of Sex* in 1970 can be connected to Donna Haraway's vision of a post-gender, post-natural body of the Cyborg that she puts forward in her "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century". Nancy Lubin in her book *Pandora's Box* uses the term" technophiles" to refer to Donna Haraway and Shulamith Firestone. She explains 'feminist technophilia' as "veneration for technology because of the belief that it will free women from the burden of reproduction, the primary source of our oppression" (43). A biologist, feminist and philosopher, Donna Haraway builds an "ironical political myth faithful to feminism, socialism and materialism". Through this myth of cyborg,

Haraway provides us with a blueprint for the creation of a post-hierarchical, genderless world. She defines her cyborg as "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction", and states:

> The cyborg is a matter of fiction and lived experience that changes what counts as women's experience in the late twentieth century. This is a struggle over life and death, but the boundary between science fiction and social reality is an optical illusion. (147)

As stated in the above quote, Haraway's cyborg embodies a fusion of reality and fiction that transgresses the boundaries of human/machine, technology/biology, culture/nature, natural/artificial through the hybridization of the biological organism via technological fix imprinted on the body. Artificial limbs, prosthetics, organs, medicine that enhance the natural human capacity in any way are instruments that will be employed to create this mechanized entity of the cyborg. This postmodern appropriation of science and technology brings about a post-human identity that rebels against the traditionally held categories of identifications. This entity is fundamentally above gender hierarchies, dualistic categories and power dynamics. As Haraway affirms, the cyborg is both a fantasy of science fiction and a historical reality that will come to be. The world of cyborg is freed from the fixed, keen-edged classifications and power distributions but rather it moves in a harmony, a 'higher unity' of the parts. Haraway explains the notion of harmony conveyed by the cyborg imagery as follows:

> Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia. It is an imagination of a feminist speaking in tongues to strike fear into the circuits of the super-savers of the new right. It means both building and destroying machines, identities, categories, relationships, space stories. Though both are bound in the spiral dance, I would rather be a cyborg than a goddess (68).

As made explicit here, Haraway's vision of employing technology to do away with categorizations and classifications aligns her with the technophiles who support the reproductive technologies and technologies in general for their potential for liberation from the pre-determined, Western, patriarchal definitions of womanhood, motherhood and family structure by giving a chance to the figure of the cyborg to overcome the binary idea of gender. The cyborg is a metaphor that challenges and subverts our way of perceiving our social and biological relations with the world.

Donna Haraway and Shulamith Firestone's theories in relation to women and technology as presented above have galvanized the discourse on the nature of social and political implications of the technological advancements in the domain of reproduction, family, and gender-based identities. Their ideas have been picked up, debated, criticized, developed by many academics and thinkers that engage with social organization of biology and cybernetics. For instance, in 2015, a feminist working group called Laboria Cuboniks published an online manifesto in which they provide an evaluation of the relationship between gender, technology, reproduction, sexualities, social relations. The "Xenofeminism: A Politics for Alienation", as it was called, draws insight from the techno-optimist feminists' assessment of reproductive technologies and calls for an anti-naturalist, gender abolitionist, techno materialist revolution through manipulation and tailoring of technologies for a more emancipatory future. Bringing together the politics of Shulamith Firestone and Donna Haraway in a symbiosis to transcend the boundaries of the body as a site for contestation and restructuring through reproductive technologies and scientific instruments in general, xenofeminism as a theoretical framework is against the radical feminists' approach to technology as inherently patriarchal and 'anti-women' but rather it maintains that technologies emerge out of the social, political, technical structures and should be analyzed within these historical contexts. However, XF gives us the possibility

of "reengineering" and "repurposing" of these technologies to be deployed to destabilize the gender dualism and hierarchical power dynamics. Helen Hester, in her book *Xenofeminism* (2018) which is written as an extended version of the XF Manifesto, contends:

> Technologies, then, need to be conceptualized as social phenomena, and therefore as available for transformation through collective struggle.... any emancipatory techno-feminism must take the form of a concerted political intervention, sensitive to the fused character of the structures of oppression that make up our material worlds. It is in this spirit that xenofeminism seeks to balance an attentiveness to the differential impact technologies can have upon women, queers, and the gender non-conforming, with a critical openness to the…transformative potential of technologies. This extends to an interest in how we might design or appropriate devices, knowledges, and processes for gender-political ends. (11-12)

Here, xenofeminism underlines the power of appropriation of technological instruments to bring about a transformation in the social fabric through empowering the marginalized groups. This empowerment through technology must accompany the rejection of the idea that what is natural should be recognized as the basis for the socially constructed notions of what is acceptable, normal, and tolerable. As apparent in the slogan of XF Manifesto "If nature is unjust, change nature!" (10), xenofeminism's anti-naturalist approach invites for a re-evaluation of the social value systems and for technological intervention to nature to transform it for a more egalitarian world order, instead of glorifying it as a moral meaning maker. This anti-naturalist is inherent in the theories of Firestone and Haraway who put forward that we need to transcend the body, release it from the domain of "nature" as sacred and unchangeable in order to build a post-hierarchical world which is not ruled by deeply entrenched norms and roles assigned to sexual differences.

Xenofeminist thought, like Donna Haraway, provides us with a vision of a future in which gender and the power division grounded in gender binaries are abolished with the deployment of technological instruments to end gender oppression. The aim of xenofeminism is not to get rid of the sexual differences or their social manifestations but rather they aim to deconstruct and reconfigure the cultural and political structures that assign social significance to these differences which inevitably begets discrimination. In this light, ecofeminit approach to nature and reproductive technologies remain contested in xenofeminist thought. One of the main ideas of ecofeminist thinking, as discussed earlier on this chapter, is that technologies are developed to serve the capitalist patriarchy. Ecofeminist, Maria Mies states that reproductive technologies alienate women from their body's natural processes, the product of their reproductive labour, therefore they aim to sever the connection between woman and nature (139). Valorization and reverence of pregnancy, childbirth and motherhood as a natural process of the body characterize the way ecofeminists perceive the sexual differences while xenofeminism underlines the importance of a re-appropriation of technological power to create radical reforms that will put an end to the gender-based subjugation and oppression women are exposed to. These two theoretical frameworks open a dialogue to understand and view the complex and controversial relationship between reproductive technologies, women and nature through their social, cultural, political and psychological implications explored and represented in dystopian and utopian contexts of the selected novels within the scope of this thesis.

To conclude, the relationship between women and the social organization of reproduction has always been an area of concern subjected to controversy and speculation among theorists and various public players. However, with the scientific advancements on the IVF research and the successful cloning of Dolly the sheep, the prospect of achieving the ectogenetic birth and even cloning technology does not seem unattainable to the public mind. This public fascination with the possible consequences of the alternative modes of reproduction

opens a door for a radical re-evaluation and redefinition of our traditionally held and culturally maintained social structures such as gender roles, motherhood, family unit, marriage, romantic love, kinship modes and so on. Women as historically and biologically indispensable to the human reproduction through their bodies and social conditioning have been the one of the most vocal groups in the debates on reproductive technologies, giving voice to the possible destructive and emancipatory applications of the reproductive technologies depending on the ideologies and interests of the institutions or individuals who employ them. As feminists have grouped together under conflicting ideologies towards the potential uses of reproductive technologies, their arguments have provided a platform for imagination and speculation that has found its echo in fictional dramatizations of the potential consequences and the wide application of these technologies either in the hands of abusive and self-interested agents of capitalist patriarchy, aiming to dominate and subjugate the female body or in the social systems where technological takeover of reproduction is aimed to build an egalitarian society free from racial, sexual, economic and psychological oppression. *Woman on the Edge of time* and *The Cloning of Joanna May* are the two novels selected to be analyzed in the following chapters in a critical dialogue with the theoretical frameworks discussed above which define and shape the relationship between women, nature and reproductive technologies in dystopian as well as utopian contexts.

CHAPTER II

"Of Brooder Born": Reproductive Technologies and Social Reform in *Woman on the Edge of Time*

Marge Piercy's *Woman on the Edge of Time* provides a literary investigation into the intricate relationship between woman, technology, female body, reproduction and nature in dystopian and utopian contexts, with an explicit emphasis on the ways the social arrangement of technologies problematizes or reinforces women's agency and subjectivity. The narrative provides an exploration of the polarized and diverse feminist approaches to the reproductive technologies and the ways in which these technologies can be turned into both potential instruments of abuse and oppression for the female body and to instruments of emancipation for women in terms of providing a release from the embodied reproduction, while emphasizing the complexities and intricacies surrounding the issue in the process.

The novel introduces the reader to the life of Connie Ramos. As a second-generation Mexican woman living in New York in 1976, she has been a target of sexual, racial and economic discrimination throughout her life. Her lovers have been psychologically and physically abusive, she has not been given the opportunity to receive quality education to be employed in a decent job that would financially support her, her daughter has been taken away from her by social services due to her drinking problem that has given rise to a violent behaviour on one occasion and she has been diagnosed and treated for mental illness. Her racial, economic and sexual position in life is presented as factors that contribute to her despair and social ostracism. Connie finds herself institutionalized in a mental hospital for repetitive violent behaviour when she intervenes an altercation to protect her niece Dolly from her 'pimp' Geraldo. Her testimony put against that of Geraldo has no accountability in a system that

privileges the version of the truth presented by the ones who hold the higher social position. During her time in the institution, the doctors recruit her for a certain state-funded scientific experimentation in which the patients are inserted with electro transmitters in their brains that supposedly help keep their violent thoughts under control before they are manifested in their behaviour. In this sense, the novel explores and criticizes the social, political, economic injustices intrinsic to the American society of the period in which the plot is set. Connie's agency and autonomy is limited. When she speaks, she is silenced or her words are not heeded. She is not given a chance to defend herself against the allegations. She is reduced to an incomprehensible, nonresponsive being without any say in the medical treatment she will be given.

The oppression Connie is subjected to by the social agents and medical establishment of her society in New York of 1976 will be analyzed in critical dialogue with the techno-pessimist feminists' approach to the technologies, perceived as the products of historically patriarchal political conditions. Connie Ramos, locked in a mental institution with no prospect to be released on her request, telepathically transports to a futuristic society named Mattapoisett through a resident of this future society of 2137, Luciente. This society, represented in stark contrast to Connie's historical circumstances, offers an ecologically sustainable, possible future revolutionized through their use of reproductive technologies. Piercy's utopian futurity, mapped out in response to Shulamith Firestone's *Dialectic of Sex* where she has endorsed the use of techno-scientific tools to emancipate women from their own bodies, takes gestation and birth outside the female body, thus aims to set mothers in equal distance to the child as with the father. This, as represented in the novel, radically alters the social organization of the division of labour and gives women the same socio-political, economic opportunities with men as well as granting men the chance to experience father-child bonding at a level that has never been socially assumed necessary or appropriate such as the bond created through breast-feeding.

Gender dynamics, kinship-making practices, the nature of sexual relations, family structure, education and work arrangements are all submitted to a radical revision brought about by the fundamental changes in the traditional mode of reproduction along with the elimination of capitalist, consumerist socio-economic order. These alterations in the social structuring of the division of labour and sexual practices in the novel give rise to a post-gender, post-natural, post-hierarchical society which will be studied in this thesis in light of xenofeminist thought and Donna Haraway's myth of Cyborg, informed by techno-optimist feminists' approach to reproductive technologies as detailed in the theory chapter. Piercy creates a contrast between the present day dystopian elements of New York and Mattapoisett, society ecologically and technologically revolutionized to eliminate all existing power structures for the sake of a more egalitarian future. Piercy's alignment with the ecofeminist movement of the 1970s comes with a twist in the ecofeminists' perception of the relationship between women and nature. Instead of glorifying women's historical and cultural association with nature, Piercy, drawing from Firestone's ideas, attempts to break the bond between women and nature through reproductive technologies. While Piercy clearly shows us through the juxtaposition of the environmental conditions in three different timelines that the exploitation and oppression of the women and nature can be traced back to the capitalist patriarchy, she does not fall victim to the most ecofeminists' essentialist interpretation of the relationship between nature and woman. Piercy's handling of ecofeminism reinforces the argument of the feminists who support technologies and reproductive technologies as the ultimate power to eliminate the gender power dynamics and create a possible future where the social and political meanings ascribed to gender can be rewritten in an egalitarian, un-hierarchical way. On this note, Piercy's attempt to offer societal reform based on the elimination of sexual difference through technologically mediated reproduction lends her narrative to both ecofeminist and xenofeminist investigations. Although the futuristic possibility of Mattapoisett, a dramatization of the Firestone's theories on

technological takeover of the reproductive capacity of the female body is presented in a utopian light, this chapter will also provide an alternative reading whereby Piercy's method of elimination of the sexual, racial oppression and the notion of gender dualities in Mattapoisett can be criticized for depending on the elimination of difference between men and women which can be interpreted as homogenization of the society for the sake of equality and cultural richness. This chapter will explore this clash of ideas on the potential implications of the reproductive technologies and will arrive at the position that reproductive technologies themselves are neither destructive nor emancipatory for women per se but they offer a politicized platform onto which ideologies, opinions, values held by diverged feminist groups, are ascribed to, as implied in the novel.

Since its publication in 1976, *Woman on the Edge of Time* has been a subject for extensive literary investigation and attention. The subjects explored in the novel such as women's objectification, racial, sexual and economic discrimination, ecological disruption are still relevant and widely discussed today. In an article in *The Guardian*, Marge Piercy, 40 years after the first publication of the novel, reflects on the social and political environment that gave birth to her novel, stating:

> The early 1970s were a time of great political ferment and optimism among those of us who longed for change, for a more just and egalitarian society with more opportunities for all the people, not just some of them… Utopia is born of the hunger for something better, but it relies on hope as the engine for imagining such a future. I wanted to take what I considered the most fruitful ideas of the various movement for social change and make them vivid and concrete – that was the real genesis of *Woman on the Edge of Time*. (*The Guardian*)

As expressed in the excerpt, the political turmoil of the 1970s gave impetus for Marge Piercy to share her projections of the future as a political tool through which radical change for a better

world is not only imagined but advocated through collective political action. Piercy employs and deftly merges together three literary forms to dramatize Connie's ordeal with an overpowered social structure that oppresses her. That is to say, utopian and dystopian narratives are juxtaposed with realistic style in three different timelines. These different timelines are presented as three alternative societies that might be conceived by the actions or the inactions of the characters in the novel and, in relation, the reader. Connie's 1976 New York is presented as the reality of reader's time in which Connie's victimization by her abusive male partners, family members, social institutions, medical establishment, welfare workers, school authorities is chronicled. This nightmare-esque social reality has the potential to evolve or devolve respectively into either the utopian world of Mattapoisett, where socio-political reform has been achieved and resulted in the elimination of the hierarchical power relations, capitalist patriarchy and environmental disruption, or the dystopian future of Gildina's world where ecological destruction, social marginalization, and women's oppression are drawn deeper and more institutionalized while the government is done away with only to be replaced by the 'multis', the epitome of authoritarian corporate capitalism. The clash between Connie's present and the utopian world of Mattapoisett comprises the central narrative through which the relationship between gender, technology, medical establishment, reproduction, nature is explored.

As an impoverished, Mexican-American woman in her mid-30s with a background of mental disorder and violent outbreak, Connie or Consuelo Ramos's life can be characterized as a series of victimizations and systematic oppression endured throughout her lifetime. Pushed to live on the fringes of the society, depending on a welfare with which she can barely afford to buy food, Connie's life has been rendered a cycle of failure and abuse.

Having observed the role of a woman prescribed by her immediate surrounding and the culture she lives in, Connie, at fifteen, rebels against her mother, renouncing the life she is expected to lead, "I won't grow up like you, Mamá! To suffer and serve. Never to live my own

life! I won't!" (33). Connie's ambitions to go to college, to travel and to "be someone" are dismissed by her mother who urges her to fulfil her duties and "do what women do" (33). Connie, trapped in a household where she is subject to domestic violence by her father, where she is never loved and cared for as much as her brother, Luis aims to rise above her social, racial and sexual circumstances and defy the notion that a woman's life consists of only cooking, cleaning, bearing children and nursing. She attempts to break free from a culture that reduces her to her biological function and not value her subjectivity as a human being. She manages to attend two years of college on a scholarship before she gets pregnant by an 'Anglo' student who would not take responsibility for the baby, which forces her to drop out. The series of unfortunate events that have led Connie to this desperate situation in life can all be associated with the men in her life. Social institutions, familial bonds, romantic love affairs, every kind of relationship Connie has endeavored to maintain has proved to be another wheel in a social and political mechanism that crushingly asserts hierarchical patriarchal authority. Connie is deserted by her family and society, feeling disillusioned and "hallow" (183), as the narrator points out: "After she had had to leave school, after her family had thrown her out, after she had spent all she had on a six-hundred-dollar abortion done without anaesthetic. Neither baby nor husband, neither diploma nor home. No name. Nobody. Woman spoiled. Chingada" (183). Her attempts to position herself in a social environment that denigrates and exploits her existence are thwarted when her first husband Martin, who shows her affection and love, is killed by the police, her second husband, wife-batterer Eddie abandons her and their daughter, Angelina and when her lover Claud, "the sweetest man she had ever had" (19), who is a blind, black saxophone player and a pickpocket is arrested and killed in prison for volunteering for a medical experiment that he participated to shorten his jail time. Following Claud's death, Connie sinks into grief-ridden drunkenness and severe depression as a result of the loss of a lover and the poverty she is stuck in, both of which, in turn, become the outlet of her rage

directed against her daughter Angelina. Connie hits Angelina in an attempt to stop her from ruining her shoes by kicking the walls since buying a new pair of shoes is out of question. The blow results in a broken wrist (45). Her loneliness, the responsibility for her daughter in poverty and being subjected to constant criticism by social workers lead her to fall prey to a violent outburst that costs her Angelina. Connie is institutionalized after this incident and loses the custody of her daughter in the process. She is brought before a jury of social agents who pin her down with their judgmental comments and looks. Connie remembers her experience, stating;

> All those experts lined up against her in a jury dressed in medical white and judicial black- social workers, case workers, child guidance counsellors, psychiatrists, doctors, nurses, clinical psychologists, probation officers- all those cool knowing faces had caught her and bound her in their nets of jargon hung all with tiny barbed hooks that stuck in her flesh and leaked a slow weakening poison. She was marked with the bleeding stigmata of shame. (43)

Her first full-on confrontation with the authorities of a socially oppressive system leaves her feeling ashamed and guilty of all the disadvantages she dealt with in her life. She is criticized for not fitting into the culturally defined image of a mother, without questioning the circumstances that lead Connie not to be an exemplary mother that they expect her to be. The "cool knowing faces" is the façade formed to create an aura of authority and normative value system in which she is disfranchised for stepping outside the culturally acceptable moral conduct. Their "nets of jargon hung all with tiny barbed hooks" that pierce through her flesh can be read as the critical and accusing language employed by these professionals to deem Connie unfit to mother her daughter. Even though, at the time, Connie, already filled with shock, guilt and self-hatred, submits into these experts' verdict and tries to recover in the mental institution she has been sent to, she reflects on the injustices in the power structure that preys

upon the weak like herself later. She says; "Most people hit kids. But if you were on welfare and on probation and the whole social-pigeonholing establishment had the right to trek regularly through your kitchen looking in the closets and under the bed…you had better not hit your kid once" (19). As can be seen, the people who live at the bottom of the social and economic hierarchy do not have the luxury to stand out with less than ideal or acceptable behaviour, otherwise no understanding, constructive criticism or help will be offered to get them back on track. In Connie's case, she is made to pay the price of one violent outbreak every day of her life, which drives her into a trauma from which she is never able to fully recover for Angelina is taken by the social services and put up for adoption. It is implied by the social worker that it would be easy for Angelina to be adopted by white families even at four years of age because her skin colour is lighter compared to Connie, which would not distinguish her as a child of Spanish origin. Anne Gilarek comments as follows:

> In capitalism, even the child is objectified and treated like a product. She is of interest to a well-off American family because she fulfils the requirements that they have set for the prospective child. Moreover, ethnic origin emerges here as a crucial factor determining one's progress from marginality to the mainstream. (225-226)

As conveyed in the quote, the implications of racial politics here are highly suggestive. Angelina is turned into a commodity to be used in the adoption market to fulfill a white American family's longing for a child who does not deviate from their racial identification. To the social worker, the adoption would be a progressive step in Angelina's life since it would free her from the imprint of her disadvantaged background for the rest of her life. Connie as a grieving mother is disempowered and marginalized to a point that she cannot even have a claim to her daughter, and thus she is denied her subjectivity as a mother.

Early in her life, Connie is made to learn how it is to be devoid of all capabilities to be able to afford to live an authentic life, to be free to be who you are. However, this lack of

freedom has intensified and is turned into physical confinement when Connie is incarcerated for a second time due to Geraldo's accusations that she has attacked him and Dolly. The novel opens with this scene in which Dolly takes refuge in Connie's apartment from Geraldo who forces Dolly to have an abortion. Dolly, insisting on having the baby in the hopes that, if pregnant, she will not be forced into prostitution by Geraldo any longer is beaten up (8). Geraldo breaks into the apartment along with a veterinarian who is to perform the abortion despite Dolly's and Connie's protests. Dolly's situation is emblematic of the predicament of the women who live on the peripheries of life, depending on a man for the physical and economic protection. Dolly's body is commoditized, sold, traded, subjected to violence when she does not conform. Her body becomes a property over which Geraldo has total control, he decides if she will have her baby or abort it, whom and when to sell her body and is ready to subject it to a dangerous operation by a veterinarian whose knowledge of women's reproductive processes is dubious. There is no value to her body if Geraldo cannot turn it into capital for himself. At that point, like a prism that offers a glimpse of partial identities, Geraldo reflects the images of all the men who have violated, restricted, abused and exploited Connie all her life, as the narrator explains, "Geraldo was her father, who had beaten her every week of her childhood. Her second husband, who had sent her into emergency with blood running down her legs. He was el Muro, who had raped her and then beaten her because she would not lie and say she had enjoyed it" (10). In her attempt to protect Dolly, Connie gets battered, her back is burned, which leaves her speechless with pain. Filled with fury against Geraldo and protective impulses towards Dolly, she strikes Geraldo in the face with a wine bottle (11). This act of violence can be read as Connie's first active attempt to stand her ground and resist an oppressor. Fighting violence with violence is a theme that will be explored later in this chapter, however it is apt to mention here that trapped in a system that only works to alienate, subjugate her and to strip her of her individuality, Connie enacts the only scenario she has been fed since her childhood to

grasp power. Geraldo becomes the embodiment and culmination of all the patriarchal systematic tyranny and violence Connie has endured throughout her life. Her use of violence is an open revolt against a society that has rendered her impoverished in terms of self-esteem, education, economic capacity, ability to mother. This is the first time she is able to denounce male control and domination over her life and body.

As the scene changes from the slums of 1976 New York to the mental institution where Connie wakes up tied down to the bed, heavily sedated with untreated wounds and injuries, in parallel, the agents of oppression swifts from the legal, social and administrative agents of the concurrent power hierarchy to the male-dominated medical establishment with mostly female attendants who have internalized the patriarchal value-system and who contribute to the violent treatment of the patients. Science, medicine, biotechnology, in the hands of a scientific establishment ran by the values that indulge a profit-driven, upper-class, white-male, consumerist social matrix, are weaponized and used against the people who are labeled as mentally unstable, violent or a threat to society. Connie's act of self-defense is 'translated' as repetitive violent behavior by the hospital authorities who bring together her previous records of 'child abuse' and 'mental disorder' and diagnose her without any assessment of her current situation. She is labeled as a violent criminal, a threat to public. Geraldo presents a version of the story to the hospital authorities in which Connie is the perpetrator, that she has assaulted her niece Dolly and then smashed Geraldo's face. Dolly, afraid to contradict Geraldo, keeps her silence while Connie's voice bears no worth for the doctors and staff members that favour Geraldo's version of the truth over Connie's. Despite being injured and drugged herself, Connie is not given a chance to explain what has transpired or her medical situation. The narrator explains:

> Man to man, pimp and doctor discussed her condition, while Dolly sobbed. The doctor asked her only her name and the date. First she said it was the fourteenth and then she

> changed it to the fifteenth, thinking it must be after midnight. She had no idea how long she had been unconscious. (13)

As seen in the quotation, Connie is rendered an object, someone who is being discussed, talked *about* instead of being talked *to* as if she is invisible. The diagnosis of the doctor is not accompanied by extensive screening of her mental stability through verbal examination but rather, the assessment of her medical situation is based on some documents that certify her previous hospitalization and the narrative provided by Geraldo on her violent outburst. Her attempts to bring the doctor and the hospital staff to listen to her side of the story are thwarted, which further adds to her alienation.

At the entrance of the hospital Connie's identification documents are confiscated in exchange for "plastic identification bracelet sealed on her wrist" (15). She is deprived of all types of individuality and authenticity by being reduced to an unnamed, insignificant patient recognized by a plastic bracelet, who can be summed up by a file of the records on her mental illness history. Erosion of identity can be read as part of the "treatment" plan to eliminate patients' perceived "abnormalcy". The patients' subjectivity and will power to stand for who they are by refusing to serve as a functional tool in the hierarchical mechanism of power is meant to be broken through dissolution of their individuality. On the other hand, a set of normative behaviours, culturally associated with femininity is rewarded in the mental institution. Connie explains;

> The pressure was to say please and put on lipstick and sit at a table playing cards, to obey and work for nothing, cleaning the houses of the staff. To look away from graft and abuse. To keep quiet as you watched them beat other patients. To pretend that the rape in the linen room was a patient's fantasy. (145)

As can be drawn from Connie's remarks, traits such as being kind, cleaning, being concerned with the physical appearance, obeying orders, not engaging with a satisfying work are affirmed

and encouraged as a part of a strategy to impose a socially acceptable and expected code of conduct on the patients. The hospital staff forces Connie into the idea of how a "normal" woman should behave while at the same of time exploiting the patients' vulnerable position by offensively and unprofessionally having their houses cleaned by the female patients. "Rape in the linen room" is the epitome of physiological and physical abuse the patients are subjected to. The hierarchical system of coercion in the hospital manifests itself through this act of rape, when an overpowered group of doctors and hospital staff consider themselves entitled to breach the patients' bodily, mental and psychological integrity. This inhumane, invasive, unjust treatment is witnessed by the helpless patients who are rendered accomplices in this institutional crime by being forced to pretend that sexual act was consensual, or the physical violence never happened. The description of this grim reality of Connie's experiences in the mental institution of 1976 New York can be read in critical dialogue with the technology/man conflation embedded in the ecofeminist thinking. As discussed in the theory chapter, the scientific establishment is characterized as inherently detrimental to woman and instruments of technological developments are considered as tools to perpetuate patriarchal scheme to monitor, regulate and control the female body. In this light, ecofeminists believe that science is hardly ever 'objective' and that technologies bear the imprint of the socio-political conditions into which they were invented. Bringing into the discussion, the question of women's underrepresentation, Robyn Rowland asserts; "Although technology itself is not always a negative development, the real question has always been- who controls it? Biological technology is in the hands of men" (356). Here we can extrapolate that the underrepresentation of women in the scientific arena and in the decision-making processes render women vulnerable to the effects and changes these technologies bring about in the social and medical contexts as the aim of inventing and commoditizing these technologies would be to accentuate the accumulation of patriarchal profit and deeper social exploitation. To Maureen C-LaPerrière

woman's relationship to technology in Western, heterosexual, capitalist culture is akin to a "passive recipient where she is acted upon by technological and scientific change", further stating that "[t]his scientific knowledge is of itself subject to prevailing social norms and values", "embod[ying] masculine values in its presentation as all powerful and all-conquering" (33). This quote provides insight into the ecofeminists' and resisting feminists' position against the prevalent use of technologies as tools of patriarchal oppression on the female body. The technological intervention to the female body especially in the context of reproductive technologies will be discussed further in this chapter, however it is appropriate to underline here that even outside of the context of biotechnology which might facilitate direct, physical invasion and control on the female embodiment, a medical and scientific establishment indoctrinated into a patriarchal value-system might prove to be as abusive and intrusive as technologically enabled penetration. This argument can be exemplified through Connie's above chronicled ordeal with the overpowered hospital authorities. Kerstin Shands comments on the repressive environment of the mental hospital in which Connie is imprisoned. She states; "In the mercilessly oppressive 'confined space' (WET 23) of Piercy's mental hospital, a rigid hierarchy reigns, where feminine and maternal characteristics such as empathy, caring, emotionality are denigrated, and masculine/patriarchal values such as rationality and impersonality are validated (68). As explained here, this 'confined space' is charged by stereotypically patriarchal values such as violence, mercilessness, lack of empathy and understanding, hierarchy, authority...etc, while women are infantilized and portrayed as unstable, incoherent cases that require medical and technological assistance.

At this point of the narrative where Connie is rendered powerless in her bleak, depressive, restrictive spatial reality, we are introduced to a utopian society called Mattapoisett. The history of Connie's exposure to countless abuses such as poverty, rape, racial discrimination, domestic violence, institutional injustice…etc and her inability to set herself

free from the psychological, physical, spatial constraints placed upon her by the patriarchal regulatory institutions puts her in an ideal position to respond to the call of 'Luciente', her guide to Mattapoisett, and maintain the telepathic contact as the only way to escape the nightmarish reality she is trapped into. Piercy employs juxtaposition and contrast as her main technique to critique the prevalent use of technology and social, legal, scientific establishment of her time, and to offer societal reform though the portrayal of a possible utopia that can be reached by individual and collective political action. Male-supremacy, economic oppression, consumerism, hierarchical sexual relations, violent treatment of patients by mostly white-male physicians, abusive use of biotechnology of the 1970s' New York are presented in a stark contrast to the egalitarian, non-hierarchical, ecologically stable world offered by Luciente.

The capitalist, patriarchal nature of the technology and medical system of Connie's time is laid bare by the defamiliarized setting of Mattapoisett in which purposes and possible uses of technology and science are determined, as all policies involving the public interests, by open debate, consensus decision-making, transparency. Communal participation in the decision-making process cancels out the possibility of one group of people to accumulate more power than others. This alternate society is one in which all the agents and elements that represent the failure of Connie's society that oppresses and discriminates her is overthrown through a thirty-year war that set the foundations of the utopian society of Mattapoisett. Reversing the effects of the excessive use of natural resources and damage to the ecological systems due to rapid industrialization and over population occupies a central position in the political decisions that inform the way of life of the inhabitants of this society. Reproductive processes, the concept of motherhood and family, education of the children, name-giving, work arrangements, economic activities, agriculture and relationship to nature are all submitted for a radical reconfiguration for a more inclusive, egalitarian, prosperous world in which money, power hierarchies, private property, gender roles are eliminated. Thus, Mattapoisett is presented as an ideal post-gender,

post-hierarchy society where violence is almost rooted out of the social fabric. Marge Piercy explains her aspirations behind the creation of Mattapoisett in an interview with Elton Furlanetto as follows:

> I set out with *Woman on the Edge of Time* consciously in the utopian tradition. The utopias that men have created are very rigid, everything very well defined, often a caste system, etc. I am more interested in the type of utopias women have created. Basically women's utopias have been places where what women do not have can exist... A place where women are not punished for their sexuality, a place where raising children is communal or quasi-communal....In most women's utopias, either money has been abolished, or people are respected according to how socially useful their skills are… People who do the things society really needs. (Furlanetto 8)

Here the differentiation in the utopia tradition of female writers from that of male writers is highlighted. Piercy criticizes the male utopian writers for not being able to pinpoint and rise above the failings of their societies, for limiting their narratives with the same repressive, structural power mechanism enmeshed in their surroundings. She sets out to create a utopia in which women are socialized not to be ashamed of their sexual desires and conduct, their value is determined by their social productivity rather than their physical appearance or service to men. The need to transcend gender oppression and asymmetrical power dynamics is the driving force behind the Mattapoisett.

Connie can reach Mattapoisett through a 'sender' a term used by the people of Mattapoisett to describe a person whose mental capabilities are flexible and open to communicate with other individuals across time and space. Connie is described by Luciente as being a "catcher". Luciente explains; ""You're an unusual person. Your mind is unusual. You're what we call a catcher, a receptive"" (30). As explained by Luciente, Connie's mind is open to an extent that she can receive the call for communication sent from Luciente. Being

perceptive and open for communication makes Connie an ideal candidate to reach out of her ward to a place where she can be free and cherished by the people who are not from her time and surroundings. We can read Connie's openness to perceive, catch or receive as resulting from her dissociation from her society and her need to communicate, to be understood and valued. Her marginalized status leaves her disconnected and isolated, which is unconsciously sublimated to being open to 'catch' any attempt to connect and commune. Luciente is a member of a project called the "Manhattan project" (41), a group of senders who aim to communicate with people in different timelines to encourage political activism and revolution, which would ensure the existence of their utopia. Another member of Mattapoisett, Bee, explains to Connie later in the book the fragile situation their timeline is positioned. He says: "We must fight to come to exist, to remain in existence, to be the future that happens. That's why we reached you" (148). Piercy brings together and incorporates the themes of political activism and technology into the whole body of the narrative. In her article "Chaos and Utopia: Social Transformation in Woman on the Edge of Time", Elham Afnan comments on Luciente's role as a guide for Connie, stating; "Luciente's role is analogous to that of the author: both of them not only present the distinguishing features of a new society, but they also try to stimulate in their auditor/reader the activism that will bring that society into being" (4). As deftly interpreted in the quotation, Luciente's undertaking, to bring Connie into the realization that only through individual or collective activism and awakening can Mattapoisett stand a chance against the oppressive capitalist patriarchy already ingrained into the political structure, is tantamount to Piercy's task to create public awareness through literary envisioning of a 'utopia' on the issues of sexual and racial dynamics that operate hierarchically within the system and environmental degradation caused by the destructive effects of the capitalist industrialization.

In terms of drawing attention to the subjugation and domination of natural environment and women under the yoke of capitalist patriarchy, *Woman on the Edge of Time* embodies the

basic premises of ecofeminist thinking which calls for the dissolution of all hierarchical power structures and elimination of the value system of capitalist consumerism that targets maximization of profit regardless of the ecological costs next generations will have to bear. Environmental degradation, global warming, technological development that is not accompanied by ecological protection and preservation, pollution of food, air, water resources as a direct result of Anthropocene are all depicted as being closely linked with the same patriarchal reasoning that aims to objectify and oppress women. In her article "Rereading Marge Piercy and Margaret Atwood: Eco-feminist Perspectives on Nature and Technology", Soraya Copley comments on Piercy's inspirations behind the creation of Mattapoisett, asserting:

> In the 1970s, when Piercy was writing, there were the beginnings of a global awareness of the destruction of nature and the setting up of such movements as Greenpeace, Save the Whale, the WWF and many more. For utopians, the notion of progress involves striving to bring about a time in which the environmental ravages, human exploitation, and unjust suffering brought about by patriarchal capitalism has been transcended. (4)

Here we can deduce that Piercy's feminist utopia is intrinsically related to and informed by the environmental deterioration and the methods, tools, policies required to employ for the preservation of ecological balance. Piercy, conjoining the women's oppression exemplified by Connie's experience with the social, legal and medical institutions of her time with the disruption of ecological harmony and balance caused by the mass consumerism, overpopulation and capitalist enterprises, renders *Woman on the Edge of Time* one of the early examples of ecofeminist fiction.

For Connie, the utopian features of Mattapoisett remain incognizable on first interaction. Connie's impressions of her first encounter with the landscape of Mattapoisett run counter to

her expectations from a technologically revolutionized futuristic society. The pastoral setting of the agrarian village life embraced by Luciente's future is a contrast to Connie's experience with technological capabilities. While her imagination is flooded by the images of "rocket ships, skyscrapers into the stratosphere, an underground mole world miles deep, glass domes over everything" (49), she is bewildered by what she sees:

> A river, little no-account buildings, strange structures like long-legged birds with sails that turned in the wind, a few large terracotta and yellow buildings and one blue dome, irregular buildings, none bigger than a supermarket of her day... No skyscrapers, no spaceports, no traffic jam in the sky. "You sure we went in the right direction? Into the future?" (50)

The village life brings back unpleasant memories from Connie's Uncle Manuel's farm where they lived in "dirt poor" (40). Connie is taken aback by the agrarian living conditions these people from the future enjoy. Luciente proudly declares ""You're right, Connie, we're peasants. We're all peasants"" (51). Environmental negligence, proliferation of industrial machinery, rapid depletion of natural resources by Connie's society have obligated the Mattapoisett society to embrace a zero-tolerance policy to ecological disruption and waste to recover the Earth from the damages of the "Age of Greed and Waste" (39). Through juxtaposition of the way of living in Mattapoisett and the practices of the 20th century, capitalist industrialism, Marge Piercy brings the reader to a point of a violent confrontation with the ecological destruction and waste caused by the dismissive policies of the world leaders even to this date. The reader, sharing Connie's naïve ignorance, is baffled by Luciente's horror upon being provided with a demonstration of how the toilet works by an incognizant Connie, Luciente cries out:

> "It's all true!" …"Sometimes I suspect our history is infected with propaganda... But to burn your compost! To pour your shit into the waters others downstream must drink! That fish must live in! Into rivers whose estuaries and marshes are links in the whole

offshore food chain!" (40)

Luciente's disappointment is marked by their basic philosophy of living in harmony with nature as much as their inability to afford to produce any waste products due to the state of the natural environment passed down to them by the previous generations. The practices of our culture and society that are considered outrageously destructive and disrespectful to the Earth by Luciente's people form the basis of their environmental policies. Luciente asserts; ""We have limited resources. We plan cooperatively. We can afford to waste … nothing. You might say our—you'd say religion?—ideas make us see ourselves as partners with water, air, birds, fish, trees""(92). Here we can extrapolate that their basic philosophy or perhaps religious experience is informed by their concept of being a part of an entangled web of interconnectedness with all living beings of nature. Their approach to nature is one of being equals, instead of maintaining a master-slave relationship, being 'partners' with the natural world instead of trying to dominate and conquer the natural habitats and resources of the Earth. Their material experience with an ecologically distressed world has brought them to the realization that nature cannot be separated from the physical and psychological wellbeing of its inhabitants.

Despite being a technologically advanced society, their technology goes hand in hand with their respect and reverence for nature and is purposed to protect, preserve and maintain the ecological harmony. These technological practices involve growing crops resistant to droughts and other forms of environmental dangers so that each village can stay self-sufficient, mechanization of dangerous and tedious work such as "stuffing pillows", "mining" and "manufacturing", switching to renewable energy types such as "methane gas from composting wastes", energy from the "sun", "wind", "waves", "river", "wood gas" (94-95). The belief in harmonious co-existence of nature and human is translated into political action by inclusion of an "Earth Advocate" and an "Animal Advocate" in the town councils that function as the equivalence of the parliament in 20th century governmental system which is decentralized in

Mattapoisett. Every town chooses their "Earth" and "Animal Advocates" to voice their concerns or requests on the matters that involve ecological disturbance such as clearing land to farming or the employment of scarce resources (113). Political representation of nature in the town councils is an explicit example of the degree to which ecological awareness and responsibility is embedded in the Mattapoisett social structure. The viewpoint of humble and peaceful existence of human race with no disturbance to other earthly creatures embraced by Luciente's society is presented as an antithesis to the destructive and egocentric view of humans' hegemonic position in the universe, ingrained in Connie's society. Even when their interests are in conflict with the natural order, people of Mattapoisett try to find a responsible balance that would not put the ecosystems in distress. Connie is surprised to find out that there are still mosquitos in Mattapoisett, to which Luciente replies by saying:

> "They're part of the food chain. We bred out the irritant …. About weather, when it gets disastrous, sometimes we adjust a little. But every region must agree. When a region is plagued by drought, grasp, we usually prefer to deliver food than to approve a weather shift. Because of the danger. We're cautious about gross experiments. 'In bio-systems, all factors are not knowable." (71-72)

People of Mattapoisett do not shy away from the use of technology, however, their technology is tailored to be sensitive to and in reverence of every creature in nature. They have the power to do away with the mosquitos that have caused various deadly diseases and death of thousands of people throughout history but 'Mattapoisettians' do not feel entitled to intrude and meddle with the natural cycle. Despite their technological superiority and scientific knowledge, the people of Mattapoisett do not claim to know all the possible consequences of making elective alterations in natural systems to be able to meet the economic necessities of an overpopulated earth. The human-centric approach to ecology that has destroyed natural habitats and caused global warming has run its course in the future and the residents of this future are careful not to

make the same mistakes as the people of the 'Age of Greed and Waste'.

Incompatibility of the approaches to the employment of technology and science between Mattapoisett society and the medical establishment of Connie's 20th century society is highlighted by the administration of psychotropic drugs, electroshock sessions, implantation of electro-transmitters into patients' brains to dull patients' will power to resist in order to control their so-called "violent" behaviour through directly interfering with the brain functions in the mental institution Connie is incarcerated. These images of biotechnological torture and behavioural control mechanisms narrated through a realistic tone by Piercy to mark Connie's nightmarish experience in the institution and the horrific ways in which mental illness is treated in Connie's society, are set against the inclusive, liberal, benignant deployment of science and technology by the Mattapoisettians. Connie's oppressive reality is turned into scenes from a dystopian, horror movie with "the cruel and indifferent doctors" (Shands 69) running experimental trials on mental patients. The excessive doses of drugs, especially 'Thorazine', administered into Connie's system renders her experience even more unrealistic and nightmarish, leaving her staggering between a clouded, terrifying reality of abuse and unconsciousness, which she describes as gradually killing her (43). Connie is trapped in the hands of a medical establishment that does not aim to heal her alleged mental illness but makes her addicted to drugs that she does not need, renders her frustrated from lack of self-expression, suffering from constant violation of mental functions as a part of the physical violence imposed on her body. She finds herself mentally less stable and 'stymied', 'trapped', 'drugged', 'dulled' (22). In this regard, we can say that the institution forces the patients to become the very thing it aims to cure, as Connie fittingly observes; "The mental hospital had always seemed like a bad joke; nothing got healed here" (145). The use of drugs as a main method of treatment is contested by a more naturalist approach to science and medicine in Luciente's society. In Mattapoisett, bio-technology is an area of expertise where people lend heavy consideration,

research and hold joint discussions before its prevalent application on patients. Luciente's enlightening description of the practices of 20th century medical field leaves the reader questioning the scientific methods of their own medical systems. Luciente observes, "In your time I think people talked about effects and side effects, but that's nonsense... all are effects! Your drug companies labeled things side effects they didn't want as selling points. It's a funny way to look at things, like a horse in blinkers" (207). As we can infer from the quote, Mattapoisettian approach to medicine is stripped of its capitalist implications while in Connie's society, drugs are commoditized by pharmaceutical companies that leads to potential abuse and monopolization of health care. Piercy presents an eco-critical perspective by deliberately juxtaposing the therapeutic properties of herbs that nature offers, prevalently used in Mattapoisett and abusive use of chemical substances for healing purposes in techno-medical establishment of Connie's society. We might read this juxtaposition by Piercy as a way to underline the importance of the appropriation of nature to produce medicinal properties as an alternative to the patriarchal science and technology, thus engaging in an eco-feminist reading of the use of medicine as a potential instrument of oppression depending on the ideologies of the agents who has produced and determined the area of its application.

Oppressive use of technological tools against women and other marginalized groups is brought under heavy scrutiny and criticism throughout the narrative, the damage caused by the wrong diagnosis, maltreatment, and unnecessary application of invasive techno-scientific instruments on the body reaches its peak when Connie and some other inmates of the mental hospital are chosen to be subjects of a specific experimentation for bio-medical mind-control. The capitalist, bureaucratic scientific field of Connie's world that consists of mostly male physicians and decision makers who believe it is cost-effective to push drugs and gadgets into the patients' body that will 'magically' heal them from their non-conformist behaviour and reinstate them to their allocated lot in society without any resistance is represented in the novel

by a group of scientists in the psychiatric department of Rockland hospital, in search of their "possible subject" (64) to be used during the launching of a new experimental therapy in which 'neurotransmitters' are to be implanted in the brain to control the patients' violent thoughts before these thoughts are manifested in their behavior. This biotechnological experiment that mostly targets "neurotic women" (166) is employed as a behavioral control mechanism in which inclinations towards socially violent conduct are eliminated through the invasion of brain activity, violation of bodily integrity and suppression of individual identity. Connie overhears the doctor explaining to a hospital staff "that they had used up five thousand monkeys before they began doing these operations on patients. Used up" (166). The inmates of the psychiatric hospital that comprises mostly of the people have engaged in 'deviant' behaviour against the social body is criminalized and punished for their alleged transgressions at a level that they are dehumanized, fragmented, treated as bodies offered up for scientific experimentations. The value attached to these bodies in the social hierarchy is only a little higher than animals, a 'monkey' who lacks agency, consciousness and a voice to speak up against the injustices committed against its basic rights. This situation is emblemized through a patient named Alice who has been thought to be in need of technological stimulation to behave 'right'. The device placed into her brain is remotely operated though a computer to inject chemicals into the brain that will instantly sedate and alleviate violent tendencies. Like a circus animal put on an exhibition, Alice is provoked to display her regular violent attitude towards the hospital staff, only to be put down through chemicals pouring into her system when she tries to fight back (152-53). Played like a toy to showcase the success of the surgery, Alice feels confused and empty when her rage and ability to resist are taken away from her. Frances Bartkowski comments on this dehumanizing behaviour employed by the medical establishment of Connie's society, stating: "Piercy's agents of repression …are a collection of professional men and women who work together at classifying and experimenting with those like Connie who are

displaced in and by the dominant culture" (63). As indicated in the quote, locked out of mainstream society, these inmates are forced to face otherness, demonization, alienation, abusive and intrusive correction methods.

The basic tenets that inform and shape the narrative construction of the oppressive social agents and the destructive use of technology by a capitalist patriarchal system on the female body and other marginalized groups in Connie's world draws from the male/technology binary association supported by the ecofeminist thinkers. The policing gaze of medical authorities is made explicit by the technological and chemical methods of ensuring social, physical and mental restraints on the female body. Connie's oppression in the mental institution by the Western techno-scientific field is compatible with the scenarios of technological abuse of women in the hands of patriarchal capitalist medical establishment of the 20th century, which ecofeminists warns against. Piercy takes a critical stance and unveils both the constructive end results and the pernicious effects of technological developments depending on the socio-political structure that determines the purposes and application of these technological tools.

Upon a close reading of the narrative, Piercy's take on whether the technologies, especially reproductive technologies are emancipatory or oppressive is explicit. We can align Piercy with the liberal feminists' approach to the technologies as being neither inherently detrimental nor liberating for women but the socio-political, economic organization of the society being the determining agent of the purposes the technologies will serve. This view of an objective technology might be read as a clash with the ecofeminist approach to the technologies. Maria Mies in her book *Ecofeminism* argues "[technology] cannot claim to be neutral; nor is it free from sexist, racist and ultimately fascist biases in our society. These biases are built into the technology itself, they are not merely a matter of its application" (195). Mies's claim that technologies cannot be separated from the cultural and political 'biases' of the societies they are embedded in is taken up and questioned by Piercy. Piercy voices her reservations about the

objectivity of science and technologies in her article for *The Guardian*. She comments:

> I am always interested in who controls technology in any given society at a particular time. Who decides that trolleys and passenger trains are obsolete but that cars are all-important...Who chooses which technology is explored? Who sets the rules for what is dangerous and what is acceptable risk? How decisions are made in a fair and egalitarian way was one of the themes of the novel. (Piercy)

As put forward by Piercy in the above quotation, the forces controlling and navigating the direction of science and the purposes of the modern technologies are responsible for the effects and consequences created in the cultural and economic structures. In a capitalist, power-driven, sexist, racist system, these technologies are suspect to manipulation and exploitation for the benefit of the status quo. Luciente, voicing Piercy's suspicions, explains to Connie, saying; "**"**But Connie, in your day only huge corporations and the Pentagon had money enough to pay for big science. Don't you think that had an effect on what people worked on? You grasp neurologists made the aplysia extinct by using it up in experiments? Almost did the same to chimpanzees! What arrogance!"" (209). Here, invention of technologies to serve the patriarchal capitalist agendas of the payers and its destructive use on the environment in Connie's time is expressed clearly. However, Piercy does not easily dismiss the technology and science as mere instruments of male oppression but stresses the potentiality for greater good through the imaginary projection of Mattapoisett. On this note, we can link Piercy's ideas to xenofeminist approach and its emphasis on technology's potential to create a more just, equal society. In their manifesto, Laboria Chuboniks asserts:

> The real emancipatory potential of technology remains unrealized…the ultimate task lies in engineering technologies to combat unequal access to reproductive and pharmacological tools, environmental cataclysm, economic instability, as well as dangerous forms of unpaid/underpaid labour… There is no 'feminine' rationality,

> nor is there a 'masculine' one. Science is not an expression but a suspension of gender. If today it is dominated by masculine egos, then it is at odds with itself—and this contradiction can be leveraged. (2)

Based on this reasoning, the shortcomings of our contemporary society can be amended with a policy on more inclusive and benign employment of technology and science. Piercy's Mattapoisett is an ideal society that is created out of the failings of the 20th century strategies on social and technological organization, therefore, one which is apt to eliminate any kind of power accumulation mechanism. Thus, Piercy's futuristic vision of an alternative socio-political setting in which the employment of technology is stripped of its patriarchal, capitalist, racist characteristics and technology is purposed to revere, preserve and maintain the ecological balance provides a convergence between the ecofeminist and xenofeminist approaches.

The most controversial aspect of the social organization manifest in the novel, which provides fertile ground for an analysis of the relationship between woman, technology and nature is the radical change in the arrangement of human reproductive processes. Reproductive politics as the driving force behind the original sexual division of labour that has historically resulted in woman's oppression in both domestic sphere and in the economic market is presented in *Woman on the Edge of Time* both as a potential site for woman's emancipation and elimination of the power dynamics that operate asymmetrically between the sexes and as an instrument of coercive manipulation of the female body.

Socio-political implications of the technologically-facilitated reproduction are explored through different social settings in the novel. Connie's 1976 New York and Luciente's utopian futuristic society of Mattapoisett are the two distinct social structures through which the employment of reproductive technologies is juxtaposed and conflicted in parallel with the polarized feminist positions towards reproductive technologies at the time of the novel's publication. The employment of the reproductive technologies of Connie's 1976 New York, as

discussed above, projects a destructive, invasive application of technological tools that target the female body and other marginalized groups while in Mattapoisett, the reproductive technologies are developed to an extent that ectogenetic gestation and birth is not only possible but is the only available practice of human reproduction opted by the inhabitants of the future. The difference in both the social organization of the reproduction in these societies and the cultural and political consequences of this re-modeling will be analyzed through xenofeminist and ecofeminist approach to reproductive technologies as already detailed in the introductory chapter of this thesis.

Building upon the essentialist conflation of woman and nature, as a result of woman's reproductive capacities that supposedly posit her inherently linked with nature, ecofeminists valorize and romanticize natural childbirth with no medical intervention as a sacred power women share with nature. Ecofeminism views technologically assisted reproduction and technological tools as invasive intervention into the womb, which disempower woman and strip her of her agency over her body during the reproductive processes. Ecofeminism's rejection of any possibility of these technologies to be utilized in a fashion that will socially or politically liberate women lies in their belief that any technology invented into the patriarchal capitalist society of 20th century will be enmeshed in the sexist, racist, economic biases of the time of its invention. Xenofeminist thinkers, on the other hand, hope for a more promising future in which technology and scientific resources are repurposed to bring about a completely egalitarian society where oppression against women and other marginalized groups in the name of natural biological differences is eradicated with technological reorganization, where gender dimorphism is dissolved for the sake of diversity in sexual orientations and where technology is not monopolized by western, white, capitalist, male dominated members of the techno-scientific field.

Connie's 1976 New York emblematizes the destructive, invasive intervention to the

female body and reproductive processes by a patriarchal medical establishment, which corresponds to the ecofeminist' take on the reproductive technologies while Mattapoisett is presented as a society that revolutionized the reproduction through prevalent application of artificial gestation and birth, which puts women and men at equal footing with regard to the reproductive responsibilities. In Piercy's literary projection of the utopian future, reproduction is disembodied, de-feminized, a-sexualized and de-mystified as a sacred source of female power. Motherhood is turned into a gender-neutral activity that is not defined by biological, embodied reproductive experience of one sex but only by a desire for caregiving and nurturing of individuals from both sexes. Through reproductive technologies, namely ectogenesis, Piercy breaks the essentialist bond between woman and nature, embedded in the ecofeminist thinking, in her attempt to reset the socio-political conditions that has led to women's oppression, while still projecting the anxieties and concerns that in a male-supremacist, capitalist culture, reproductive technologies that involve direct intervention to the female body is suspect to achieve any emancipatory leverage for women. Thus, Piercy provides avenues of exploration into the socio-political implications of reproductive technologies in parallel with both ecofeminist and xenofeminist thoughts, denoting to the complexities that mark the diverse feminist approaches to the issue.

Before Piercy introduces the reader to the technologically enabled ex-vivo reproduction in Mattapoisett, abusive relationship between woman and reproductive technologies of Connie's time is chronicled through the experiences of the women in Connie's reality. Piercy brings the oppressive medicalization of childbirth and techno-scientific exploitation of the female body in the 1970s under heavy scrutiny through literary representation of the invasive and insensitive application of the reproductive technologies by 'cruel', 'indifferent' doctors of Connie's society. Women's inability to access safe abortions, reproductive health programmes or lack of medical literacy is projected as contributing factors to women's susceptibility to

manipulation and abuse by the patriarchal medical establishment. Connie's mother, Mariana who is indoctrinated into the patriarchal value system that measures a woman's value by her capacity to bear children, is devastated by her perceived loss of femininity upon being a subject of an unelected hysterectomy due to a stillbirth. Piercy states: "They took her womb in the hospital. Afterward that was a curse Jesús threw in her face: no longer a woman. An empty shell" (33). In the light of this quote, we can extrapolate on the psychological 'emptiness' Mariana experiences resulting from a physiological condition. The removal of her womb, an organ that she associates with womanhood is considered a 'curse' that leaves her emotionally and psychologically impoverished. Here the objectifying, dehumanizing practices of the medical field on the female body is submitted to serious criticism. Neither the conditions that have required the medical authorities to perform a hysterectomy are explained to the patient nor the patient's informed consent for the operation is obtained, which renders this unauthorized operation a coerced mutilation of the female body. The effects of the violation of woman's bodily integrity might have on her mental stability is rendered irrelevant.

Although we need to acknowledge the avenues of potential benefits these technologies can offer women who are medically, economically, psychologically in need of an intervention into the reproductive body in the forms of hysterectomy, abortion, egg-retrieval, cesarean section, IVF procedure…etc., the account of the female characters in Connie's socio-political status with regard to medical involvement into the female body is portrayed as invasive and inherently detrimental to either women's physical or psychological wellbeing, projecting the ecofeminists' and techno-pessimist feminists' anxieties and negative stance against reproductive technologies on the grounds that these interventions can be easily turned into the instruments of oppression and abuse when applied by the agents of male medical hierarchy that targets the female body as a site for domination. Maria Mies comments on this tendency to manipulate the female body under the yoke of patriarchal science and technology by

demonstrating its connection to capitalist social matrix, stating:

> Under patriarchy she has always been an object for male subjects, but in the new reproductive technologies she is no longer one whole object but a series of objects which can be isolated, examined, recombined, sold, hired or simply thrown away, like ova which are not used for experimentation or fertilization… It is the ideology of man's dominance over nature and woman, combined with the scientific method of analysis and synthesis that has led to the destruction of the woman as a human person and to her vivisection into a mass of reproductive matter. (186)

As expressed in the quote, Mies argues that, positioned within the patriarchal capitalist medical system, women are treated as test subjects to be used and discarded, their bodily unity is broken and reproductive functions are brought under the control of medical authorities. Mies implies that scientific inquiry of the female body through invasive methods does not aim to focus on the wellbeing of women but is purposed towards exploration of new commercial ventures to be capitalized upon. Mies's account of capitalist, patriarchal nature of the technological intrusion into the womb is analogous with the representation of reproductive technologies as instruments of violation projecting the male desire to fragment, monitor and regulate the female body within the medical establishment of Connie's society.

Despite Connie's violent renunciation of the domestic life her mother exemplifies for her, she ends up sharing Mariana's forced passivity and despair in the face of invasive application of reproductive technologies upon her body. Connie, too, is subjected to an involuntary and unnecessary sterilization when she seeks help from the medical staff after being physically abused by her husband, Eddie. As Connie recollects: "Unnecessarily they had done a complete hysterectomy because the residents wanted practice. She need never again fear a swollen belly; and never again hope for a child" (33). This situation is a clear example of how the field of science and medicine can abuse its authority to probe into and investigate the

reproductive body for scientific experimentation. The scientific gaze that fragments women's bodies in search for cures and problems makes it highly unlikely for the medical authorities to view women in a holistic perspective, since the focus is placed on the body parts that present the problem. In a social structure that systematically inculcates the paternalistic belief that women's most essential commodity is their reproductive potential, the idea that most women would feel inadequate or incompetent when their capacity to give birth is taken away from them becomes commonplace. Connie's situation is emblematic of so many other women in almost every society around the world, who have been and are conditioned to embrace the biological ability to give birth as the primary function of a woman, the ultimate creative power that justifies her existence. In parallel, Connie declares her body as being "robbed", devoid of the source of her generative agency. In her article titled "Subtle Forms of Sterilization Abuse: A Reproductive Rights Analysis", Adele Clark sheds light onto the high numbers of coerced, unconsented hysterectomy cases that are most likely to be performed upon the women of minority groups who are marginalized and disfranchised. As she contends:

> The potential for subtle sterilization abuse through medically unnecessary hysterectomy is tremendous. Too many physicians are paternalistic, classist, racist and/or sexist and assume they should be the ultimate arbiters of women's fertility, especially that of poor women and women of colour. This is a classic example of professionals exercising their autonomy over and against that of patients. (193)

Clark's investigation into the abusive treatment of women from lower economic classes or marginalized groups by the white, male hegemony in medical and scientific fields warrants serious critique and further inquiry, which is taken up and questioned by Piercy through the female characters of Connie's society, who are locked out of mainstream society and turned into subjects of experimentation, scientific exploration and technological objectification. Connie is stripped of her subjectivity as a mother both through an unwanted sterilization and

through legal sanctions on her ability to mother her only child. Angelina's forceful separation from Connie on the grounds that she is not fit to mother and unconsented sterilization render Connie a mother who is dispossessed of all possibilities to enact her subjectivity as a mother. Her longing and desire for mothering, which she has protested to be defined by as a teenager, can be read as Connie's unrealized creative power that is sublimated into the generative agency of motherhood as a way of assigning meaning to her existence in a society that denies her basic human need for recognition and respect. The value of motherhood in Connie's life is akin to the ecofeminist emphasis on the creative power of the maternal body.

Ecofeminist thinkers such as Susan Griffin, Mary Daly, and Adrienne Rich celebrate women's embodied experience of gestation and childbirth, viewing it as an example of unique and sacred power that women have over men. The maternal body is considered as a source of strength that emanates from women's perceived connection to nature. In this regard, patriarchal organization and application of reproductive technologies bring the biological process of procreation, thus women's connection to nature, under attack by attempting to de-naturalize the embodied reproduction which results in women's alienation from their maternal body. In her book, *Of Woman Born: Motherhood as Experience and Institution* that was published in the same year as the *Woman on the Edge of Time,* Adrienne Rich criticizes the medical takeover of the natural gestational and childbearing processes that instills values associated with masculinity such as distance, objectivity, lack of emotion and intimacy onto a female experience, which makes women feel as patients rather than prospective mothers. Rich uses her own experience of giving birth to exemplify the situation. She remarks as follows:

> The hierarchical atmosphere of the hospital, the definition of childbirth as a medical emergency, the fragmentation of body from mind, were the environment in which we gave birth…The experience of lying half-awake in a barred crib in a labor room with other women moaning in a drugged condition…is a class experience of

> alienated childbirth. The loneliness, the sense of abandonment, of being imprisoned, powerless, and depersonalized is the chief collective memory of women who had given birth in American Hospitals. (176)

Rich's views on medicalization and institutionalization of gestation and childbirth marked by its lack of female presence offers a discourse of isolation and alienation for women. The clinical environment set up for monitoring the maternal body is believed to be rendering women more and more dependent on the doctors, scientists and biomedical intervention resulting in women losing their reproductive consciousness and insight about the wellbeing of the fetus and her own body. The normalization of the dependence on the doctors and medication throughout the reproductive processes leave women vulnerable to scientific manipulation and exploitation. The capitalist agendas of the male-dominated medical environment open a window of opportunity for the scientists driven by self-interest rather than ensuring the wellbeing of the patients to prey on the mostly ill-informed, uneducated, poor women who lack representation and recognition in society to speak out. This interplay of medical dependence and scientific abuse is highlighted in the narrative through Connie's sister Inez who is financially struggling to take care of her six children. She applies to a hospital to have access to contraceptive pills and ends up as a test subject for an experimentation whose context, targets or the resulting effects on her body are not conveyed. Her trust in the medical agents leaves Inez pregnant with a fifth child who is born mentally challenged, which further adds to the financial burden the family has to undertake. The victimization of Inez's family is attributed to the image of the scientist who is perceived as insensitive, self-interested and unempathetic with the patient as Connie explains: "All because Inez thought she had a doctor, but she got a scientist" (207). As exeplified through the female characters of Connie's timeline, the reproductive technologies involving both conception and contraception that require direct intervention to the female body in Connie's society are depicted as running counterproductive to the idea of a more egalitarian

society with shared responsibilities between the sexes in term of reproductive arrangements. In this regard, the narrative reflects the belief, put forward by the techno-pessimist feminists, that in a society in which the cultural, judicial, administrative and techno-scientific institutions are run by the capitalist patriarchal power relations, any technology, especially reproductive technologies are suspect to bring about a fundamental change in man/woman relations. Piercy's portrayal of invasive and destructive technological manipulation of the female body that has been analyzed as resonant with ecofeminist thought is juxtaposed and contrasted with the technologically enabled reproductive practices of Mattapoisett society.

Radical changes in the social organization of the human reproduction system in Piercy's literary projection of a futuristic, egalitarian society open a discussion on how reproduction through artificial womb technology challenges and destabilizes the culturally contrived definitions of motherhood, womanhood, heterosexual romantic relationships, familial relations, fixed gender roles and their resulting discernable physical features assigned to both sexes. These concepts, which have historically been built upon gender dimorphism and biological sexual dualism, have come to define the woman/man relationship in the Western, normative heterosexual cultural matrix. *Woman on the Edge of Time*, introducing the 'brooder' technology in which babies are fertilized and incubated in 'birthing chambers', completely outside of the female maternal body, presents an alternative social re-conceptualization of woman's positioning within the realm of reproduction. Relocation of motherhood from the site of the natural reproduction to technological achievement to bring about a society stripped of its racist, sexist hierarchical structures and class stratification will be analyzed in tandem with the xenofeminism's 'anti-naturalist' approach to biology and its social organization. Grounding the basic tenets of its philosophy on radical feminist Shulamith Firestone's theories on the employment of reproductive technologies to emancipate women from 'the tyranny of biology' entailed in *The Dialectic of Sex: A Case for Feminist Revolution* (1970), xenofeminist thought

aptly investigates and brings together the central contemporary debates surrounding the reproductive technologies and its socio- political impacts on the identity politics which will be analyzed through the concepts of motherhood, kinship making, gender dynamics as explored in *Woman on the Edge of Time.*

Xenofeminism's anti-naturalism is marked by its rejection of the theorization of 'nature' as a source of moral guidance that navigates us through our notions of what is acceptable, normal and what is deviant, abnormal. Xenofeminist undertaking aims to deconstruct the concept of 'nature' as a fixed norm generating machine around which our socio-cultural values are shaped and to restore 'nature' back to its position as a physical phenomenon susceptible to change and dynamic social restructurings. In their Xenofeminist Manifesto, Luboria Cuboniks valiantly declares the following:

> Nothing should be accepted as fixed, permanent, or 'given'—neither material conditions nor social forms... Anyone who's been deemed 'unnatural' in the face of reigning biological norms, anyone who's experienced injustices wrought in the name of natural order, will realize that the glorification of 'nature' has nothing to offer us...XF is vehemently anti-naturalist. Essentialist naturalism reeks of theology—the sooner it is exorcised, the better. (1)

As evident in the excerpt, xenofeminists operate on the premise that depending on the 'nature' and the practices considered 'natural' for assigning social significance to modes of being or behaving is to fall victim to an essentialism that has been historically instrumentalized to exploit and abuse women and other groups who have not complied with culturally prescribed code of behaviour or sexual orientation. This oppression can be put to an end through political 'interventions' of science and technology. Achievements in techno-scientific realm can be 'purposed' towards emancipatory ends for a more egalitarian society in which gender inequality grounded on biological difference is balanced. As Helen Hester attests:

> …science and technology enable a particular set of conscious interventions within the so-called 'natural' world. Such interventions have the potential to extend human freedom – for example, by furthering reproductive autonomy and allowing us to exert control (however contingent, contested, and constrained) over what happens to our own bodies. Nature is understood here not as an essentializing underpinning for embodiment or ecology, but as a technologized space of conflict that fundamentally shapes lived experiences. (13)

Here the notion that nature serves as a platform that provides blueprint of socio-political arrangement of our relations with each other and with the world is challenged through technological radical restructuring. This aspect of xenofeminist approach comes at a stark contrast to ecofeminist glorification of nature and the role it plays in the social structuring of the biological difference between the sexes as discussed earlier in this chapter. Anti-naturalism of xenofeminism can be read in parallel with the 'brooder' technology of Mattapoisett that revolutionizes the way human reproduction is organized in Piercy's imaginative projection of the future. Piercy's extra-uterine reproduction is a direct intervention to the natural process of gestation and childbirth located inside the female womb. The technological twist in the procreative process is brought about to root out gender hierarchies, biological determinism and sexual division of labour as well as heteronormative sexual practices and physical projections of restricting gender orientations, which is in line with the xenofeminist position that encourages active political engagement with the radical technological reshaping of the society. Although in-vitro gestation and childbirth is conceptualized and presented as a utopian element in the novel, Connie's first reaction, reflecting the reaction of the 1970s' reader, upon being introduced to the technology of ectogenesis in Mattapoisett could be characterized as traumatic and full of horror. As Luciente explains;

> "This is the brooder, where our genetic material is stored. Where the embryos grow."

> He pressed a panel and a door slid aside, revealing seven human babies joggling slowly upside down, each in a sac of its own inside a large fluid receptacle. Connie gaped, her stomach also turning upside down. All in a sluggish row, babies bobbed. Mother the machine. Like fish in the aquarium at Coney Island. (76)

Here the visual demonstration of the technological takeover of reproduction leaves Connie speechless and disillusioned with the future world Luciente has promised. Being too steeped in the patriarchal ideologies, Connie can only view the brooder as how it would have been utilized as an instrument of more exploitation and abuse within the socio-political trajectory of her own society rather than the potential avenues of hope and freedom it can offer in the social structure of Mattapoisett. As a woman who identifies the notion of motherhood with biological reproductive functions of the female body, Connie is nonplussed by the sight of motherless foetuses. The image of babies separated from the female body and 'joggling' in embryotic fluid independently of a biological mother registers as another patriarchal enterprise to rob woman of the only power she naturally possesses without having to fight the institutionalized male hegemony. She regards this technology as an extension of the prevalent technological violation of women's bodies in her own society, however, here maternal body is beyond being the subject of manipulation but completely discarded, rendered irrelevant and unnecessary in the process of creating life. Connie's choice of words to describe mother's connection to childbirth in this new reproductive setting requires special focus. She describes women's role in this process as 'mother the machine' which resonates with the ecofeminist conceptualization of reproductive technologies as male appropriation of the sacred generative potency of womanhood, as well as invoking the heated debates on the possibility of technologically enabled reproduction of Piercy's time. The public reaction to the ectogenetic birth of Piercy's time is further exemplified in the novel when a resident of Mattapoisett encourages Connie to take note of the radical difference in the procreative arrangements within the two societies, stating; "Be guest! Be guest

to what I comprend was a nightmare of your age" (75). Here we can see how Piercy employs feminist science fiction as a genre to capture a specific socio-political moment in history through her literary representation of the polarized positions towards reproductive technologies. *Woman on the Edge of Time* was published only two years before the research into in-vitro fertilization and ex-vivo gestation yielded its first results and took the world by storm with the birth of the first ever test-tube baby, Louise Brown in 1978. However, the discussions concerning the scientific, ethical, sociological implications of technologically assisted reproduction have been a part of feminist politics during the 1970s. Sam Mcbean, in his article titled "Feminism And Futurity: Revisiting Marge Piercy's 'Woman On The Edge Of Time'" comments on the explicit connection between Piercy's political theorization of women's emancipation and the feminist utopian tradition of her time. He attests;

> Founding gestures in Feminist Utopian literary criticism emphasized the connection between the fictional Utopias produced in the 1970s and their contemporary feminist moment. This framework continues to be a primary means through which feminist Utopian fiction is discussed throughout the 1980s and 1990s. This can be seen especially when *Woman on the Edge of Time* is read alongside Shulamith Firestone's (1970) *The Dialectic of Sex*, where Piercy's novel is seen as fictionalizing the radical elimination of biological essentialism that Firestone calls. (6)

As can be deduced from the excerpt, Shulamith Firestone was a pioneering figure who galvanized the debate on socio-political consequences of ectogenetic reproduction and later has become the inspiration behind the techno-materialist, anti-naturalist approach of xenofeminist thinking. The utopian society of Mattapoisett and its reproductive practices can be characterized as literary explorations of Firestone's radical views on technological potency to save women from their perceived biological entrapment in relation to the socio-political structures in which pregnancy and motherhood are experienced. Firestone calls for a technological revolution that

will fundamentally severe the connection between the female body and human reproduction, thus balancing gender inequality grounded in sexual division of labour. To her, "the division of labour would be ended by the elimination of labour altogether (through cybernetics)", and in this way "the tyranny of the biological family would be broken" (11). As can be seen, Firestone situates women's oppression and historical subjugation within the sociological organization of the reproductive function of her maternal body, which has led women to be trapped in patriarchal family structure. Based on this reasoning, the solution should be the elimination of the original sexual difference. Firestone regards gestation and motherhood not as a sacramental ritual undertaken by women and necessary for the continuation of human race but as a clinical condition that damages women's bodies. As she declares, "Pregnancy is barbaric. Pregnancy is the temporary deformation of the body of the individual for the sake of the species. Moreover, childbirth hurts. And it isn't good for you...The Bible said it: pain and travail…Like shitting a pumpkin" (208). Here Firestone rejects the victimization of the female body that is offered up for the reproduction of future generations in pain and blood and encourages this act of giving birth to be rendered obsolete through prevalent application of reproductive technologies. In keeping with this approach, the physical act of bearing children is eliminated though collective and voluntary decision in the Mattapoisett society and it remains a phenomenon that evokes wonder and curiosity in Mattapoisett. Sacco-Vanzetti, a member of Luciente's future who works at the 'brooder' is intrigued by the visit of Connie, the woman from the time where reproduction occurred inside the female body. He inquires as follows:

"Did you bear alive?"

"If you mean have I had a baby, yes." She stuck out her chin.

"Was there a lot of blood?"

"I was knocked out, so how do I know?"

"Was it exciting? Did it feel sexual?"

"It hurt like hell." (76)

Here Vanzetti's comment is suggestive of Mattapoisettian approach to the function of the human body. Physical bodies are valued and used in a way to serve the people of Mattapoisett as a source of pleasure rather than being employed as a vessel to bring forth children in excruciating labour pains, thus physical act of giving birth, associated with valiance and bodily fulfilment in the ecofeminist thinking is assumed to be providing a sense of satisfaction or excitement rather than being a source of unnecessary torture by Mattapoisettians. In this regard, the conceptualization of the physical process of pregnancy and childbirth in ecofeminist approach remain contested in xenofeminist thought. Ecofeminist thinkers such as Mary O'Brien, Adrienne Rich and Susan Griffin find a sense of empowerment and agency in women's active participation in reproductive processes (Bar 50). Similarly, Maria Mies in her book *Ecofeminism*, states that reproductive technologies alienate women from their body's natural processes, the product of their reproductive labour, therefore they aim to severe the connection between woman and nature (139). In this logic, the painful but 'natural' processes of pregnancy, childbirth make woman stronger by strengthening their connection to nature. Helen Hester critically responds to Maria Mies, stating:

> Despite Mies having earlier argued against reproductive technology on the basis that it 'alienates both men and women from their bodies' – which is presented as being a self-evidently Bad Thing – it would seem that what is being venerated here is the fact of being alienated from the reproductive process by nature itself. Reproductive technology offers a disenchanted alienation, achieved via devolving epistemic authority to medical experts, whilst nature offers a (for some reason vastly preferable) enchanting alienation, achieved via the subjection of the impregnated body to forces beyond its control. This, apparently, is the source of the fulfilment human beings are looking for –the magnification of uncertainty, unpredictability, and

disenfranchisement. (17)

As clearly expressed in the excerpt from *Xenofeminism*, Helen Hester denies the belief that the physical act of giving birth and embodied gestation process empowers women or restores their bodily autonomy, on the contrary, in the natural childbirth, the alienation comes from the 'nature' itself. The critical physical conditions through which a child is born is out of the control of the woman who perform the act of childbirth. The unwelcome, excessive pain woman experience render them mentally and physically disoriented, alienated or unconscious at best, a situation exemplified by Connie's experience of childbirth as she declares she was unconscious and incognizant of the physical state she was in during live birth which '...hurt like hell' (76). These clash of ideas between the ecofeminist and xenofeminist positions against the role of technology during gestation and childbirth underlines the politicized side of the techno-scientific intervention into the field of reproduction and are echoed in the narrative through juxtaposition of the distinct socio-political arrangements of reproduction. Piercy aptly engages with these polarized opinions while giving a specific focus to the potential emancipatory implications these technologies might bear for women.

The total technological takeover of the human reproduction that aims to eliminate the cultural significance assigned to biological difference between sexes and to dissolve the binary idea of gender in Mattapoisett is not an isolated strategic plan that radically alters all social fabric towards a more egalitarian society. The application of reproductive technology is a collective decision that finalizes a series of fundamental changes in the socio- economic structure. This progressive process of rooting out hegemonic power dynamics and creating the necessary socio-political conditions in which technologies can exist objectively of any corporate or individual interest can be traced back to Firestone's layout for total emancipation. As Firestone contends:

In the hands of our current society and under the direction of current scientists (few of

> whom are female or even feminist), any attempted use of technology to "free" anybody is suspect. But we are speculating about post-revolutionary systems, and for the purposes of our discussion we shall assume flexibility and good intentions in those working out the change. (206)

As expressed in the quote, Firestone does not believe that the proliferation of reproductive technologies under our current political trajectory will magically transform our society into a utopian culture of tolerance and peace as exemplified by the values of Mattapoisett in Piercy's literary projection. Firestone realistically puts forward that the elimination of capitalism, the consumer economy, breakdown of patriarchal ideologies and dissolution of socio-political values and meanings inscribed into biological difference has be to be accomplished before reorganization of reproduction can be successfully installed to create revolutionary social ramifications for the equality of the sexes. Drawing on from Firestone's insights, Piercy brings this revolution into life in her fictional setting of Mattapoisett. Luciente explains to Connie the historical moment of altering human reproduction. She states:

> It was part of women's long revolution. When we were breaking all the old hierarchies. Finally there was that one thing we had to give up too, the only power we ever had, in return for no more power for anyone. The original production: the power to give birth. Cause as long as we were biologically enchained, we'd never be equal. And males never would be humanized to be loving and tender. So we all became mothers. Every child has three. To break the nuclear bonding. (78)

As a final step to eradicate asymmetrical power relations, women of Mattapoisett have surrendered the last remnant of power that could prove them superior to biological males. All power has to be abnegated to level the playing field, to reset the historical social structures rife with patriarchal ideologies and capitalist motivations. Here Piercy demonstrates that under the right social conditions, technological achievements can be purposed towards freedom and

equality even though it means a departure from what historically and culturally assumed to be 'natural' or acceptable as underlined in anti-naturalist approach of xenofeminism.

In Mattapoisett we witness a concept of motherhood that is detached from the female body, sexual act, gestation or labour pain. The biological status does not determine an individual's right to a child or lack of somebody else's. Biological females and males are equally entitled to perform same parental duties towards the children of Mattapoisett. Piercy completely delinks the concept of motherhood from the embodied experience and sexual difference. Connie whose life is marked by institutionalized usurpation of individual power, laments this situation, saying;

> How could anyone know what being a mother means who has never carried a child nine months heavy under her heart, who has never borne a baby in blood and pain, who has never suckled a child. Who got that child out of a machine ...All made up already, a canned child, just add money. What do they know of motherhood? (78)

The automation of reproduction that renders the female body irrelevant for the continuation of human race registers as a scene from a horror movie for Connie for whom the physicality of motherhood that involves pain, blood, dedication is a prerequisite to bear the title of a 'mother'. Connie draws back in horror when she witnesses a man breastfeeding. She observes: "He had breasts. Not large ones. Small breasts, like a flat-chested woman temporarily swollen with milk. Then with his red beard, …, he began to nurse. The baby stopped wailing and began to suck greedily" (99). In this society where nurture is held as the most valuable commodity of human life and nature is held subject to change and modification for the greater good, both male and female members are socialized to accept and desire the feeling of nursing a baby. Administration of hormones allows men to be biologically capable of breastfeeding, which can be conceptualized under the anti-naturalist approach of xenofeminism which encourages 'reengineering' of the realm of the 'natural' through technological twist to establish equality

between the sexes. Men's participation in the physiological bonding with the children makes it possible for both men and women to learn the values such as sharing, nurturing, caring that come with the physical act of mothering. In Mattapoisett, men's physical and psychological maternalization through the equal division of childcare renders fatherhood as a label obsoleteand irrelevant. To Patrocinio Schweichkart, "It is noteworthy that the Mattapoisettian mode of reproduction nullifies the role of the father and universalizes that of the mother" (qtd. in Shands 76). As aptly pointed out, mothering as a concept that is divorced from sex, gender, social-conditioning, physical difference becomes an all-encompassing and pluralistic social relation embraced by all sexes when desired.

Piercy's total elimination of the biological bond between the mother and child opens up new avenues of investigation for alternative ways of kinship making new representations of motherhood redefined by technological reproduction. The concepts of sexuality, romantic relationships, marriage, and family are submitted to radical revisions as the division between social and biological loses its cultural significance. Piercy's new social setting calls into question the controversial subject of "maternal instinct" in which desire for motherhood considered as an instinct that is innate and present in every woman due to their biological capability to conceive and gestate. This patriarchal assumption that biology is the root for the desire for physical and emotional connection with a child is deconstructed in Mattapoisett and replaced by a sense of "calling" which is felt not just by women who are able to give birth but by biological males and non-biological mothers as well. Being 'called', the overwhelming feeling of identification with an area of expertise is not restricted to motherhood. As Luciente explains, going to military service to defend your society or being a chef to cook for large amount of people also require the same of amount of passion and dedication as mothering does (Piercy 130). This way, Piercy opens a discourse that underlines the importance of this anti-naturalist practice in terms of providing both men and women with the same prospect of

experiencing physical intimacy and emotional bonding with an infant. Being a woman is not a sufficient qualification to raise children in a healthy and happy environment as Luciente explains; "If person didn't want to mother and you were a baby, you might not be loved enough to grow up loving and strong. Person must not do what person cannot do" (74). Here biological essentialism imbedded in the concept of "maternal instinct" is eliminated as the individual aptitude for mothering is placed outside of the realm of biological ability. Luciente lashes out to Connie who believes that mothering biologically unrelated children can never be the same as mothering your own flesh and blood. She protests; "You think because we do not bear live, we cannot love our children. But we do, with whole hearts" (99). Maternity experienced in Luciente's world can be characterized as a conscious and informed choice for love, devotion and dedication which in no way makes the experience less valuable than embodied motherhood.

The rejection of maternal instinct as a construct of patriarchal structure to condition women to voluntarily submit into the role of the 'mother' is evocative of French feminist thinkers' theories on the desire for mothering. Simon de Beauvoir in her *The Second Sex* touches upon this pre-conceived assumption of motherhood as an instinct and announce it faulty. As she points out, "[t]here is no such thing as maternal "instinct": the word does not in any case apply to the human species. The mother's attitude is defined by her total situation and by the way she accepts it. It is, as we have seen, extremely variable" (629). De Beauvoir defines the desire to mother as a response that women develop against their social situation and psychological conditioning rather than biologically determined inclination. This approach is reflected in the social conjecture within which motherhood is experienced in Mattapoisett society.

Departure from the conventional conceptualization of motherhood in Piercy's Mattapoisett results in the dissolution of the traditional concept of heterosexual nuclear family. Each child is given three co-mothers referred to as 'coms' who have volunteered to become

mothers. Upon informing the brooder that a new baby is desired, the members of the community "…discuss into which family the child should be born and who are to be mothers" (121). The childrearing responsibilities are divided between these three mothers who do not engage in any sexual or romantic relationship with each other "so the child will not get caught in love misunderstandings" (54). At least two of the co-mothers agree to breastfeed the baby with the help of hormonal injections when necessary. This new arrangement of motherhood called 'kidbinding' ends in a ritual when the child reaches puberty. A 'rite of passage' that denotes the child's transition "from childhood to full member of the community" (85) is held when children are ceremoniously sent to wilderness and expected to spend one week alone to learn the necessary skills to survive in the woods, self-protection, being able to rely on nature for shelter and food. Upon their return to society, the selected 'aunts' act as advisers in the following years to substitute for the mothers since the children are not allowed to speak to the co-mothers for three months after their 'rite of passage'. The main purpose of this practice is to break the original mother-child dependence developed through emotional bonding period of the childhood.

Bee explains to Connie who is horrified by the idea that a child should be sent to the wilderness without adult supervision, saying; "We take the chance. We have found no way to break dependencies without some risk. What we can't risk is our people remaining stuck in old patterns—quarreling through what you called adolescence" (86). Here the child-mother relationship valued for its intimacy and depth in Connie's society is brought under criticism for creating a type of social bonding defined by its unhealthy over-reliance between the mother and the child. Luciente comments on the child's dysfunctional dependence on the mother in Connie's society stating; "I see it's strange to you. But your young remained economically dependent long after they were ready to work. We set our children free" (86). The emotional and physical dependence nurtured within the heterosexual, monogamous nuclear family

structure is interpreted in the novel as an impediment against the child's capacity to explore and stand on their own two feet. The notion of 'freedom' encouraged during the child's development period in Mattapoisett allows the child to search and discover at an early age who s/he wants to be, what goals s/he wants to work towards, which renders the children more productive, motivated members of the society.

Although the impact of the abrupt separation of the child from the co-mothers through the 'rite of passage' practice on the child's psyche is a question that is not explored in the novel and a topic for further psychoanalytical and sociological inquiry, Piercy seems to be promoting this sudden rupture in the mother-child bond over the dysfunctional over-dependence. Here again parallels can be drawn between Firestone's theories and Piercy's literary explorations. Firestone characterizes the early mother-child bond that starts at the uterus during the embodied reproduction as the root of the feelings of possessiveness, jealousy, favouritism due to excessive physical and emotional attachment directed towards the child. She attests;

> …we must be aware that as long as we use natural childbirth methods, the "household" could never be a totally liberating social form. A mother who undergoes a nine-month pregnancy is likely to feel that the product of all that pain and discomfort "belongs" to her... But we want to destroy this possessiveness along with its cultural reinforcements so that no one child will be a priori favored over another, so that children will be loved for their own sake. (242)

As clearly stated in the excerpt, Firestone argues that the trials and tribulations of pregnancy incur the sense of entitlement in the mother towards the child. The love between the mother and the child comes to be defined by the blood relation, the love for her flesh and blood, for the child who embodies the continuation of the self. This relationship can be characterized as narcissistic and too individualistic that begets partiality, hostility, over-protectiveness to be practical on a communal level. Following Firestone's argument, we can deduce that the mother-

child bond of the traditional nuclear family structure within the Western socio-political matrix turns the children into the properties of their parents, especially their mothers. This situation can be exemplified through the regulation of the relevant laws. The custody cases demonstrate that children are referred to, discussed about, traded, exchanged and agreed upon as if they were a piece of land or goods. This concept is challenged in Mattapoisett where the chores and constraints of motherhood are not only shared by the three co-mothers but motherhood as a task is undertaken communally. As Luciente declares, "[w]ithout that social faith, what a burden it would be to have children! The children are everyone's heirs, everyone's business, everyone's future" (137). Here we can argue that the asexual reproduction and dissolution of the nuclear family structure has brought about a change in the cultural-value system, in which children are not objectified as products to which the biological mother owns and holds all exclusive rights, on the contrary, they are treated as respected, independent and equal members of the community. In this regard, biological bond is not the parameter through which the subjectivity as the 'mother' and the notion of kinship are experienced in Mattapoisett but the care they give, the love they share, the time they devote to their children as a community, the maternal values instilled into the social fabric are what earns them the title of the 'mother'.

Replacing biological mothering with asexual reproduction and un-biological mothering by both sexes in Mattapoisett, Piercy opens the concept of motherhood for more inclusive and pluralistic definitions. Assigning three co-mothers to each child as primary caregivers and the child's separation from the mothers through the 'rite of passage' frees the concept love from the monopoly of 'the exclusive mother' and can be characterized as a factor that contributes to the eradication of the notion of monogamy in Mattapoisett. Luciente explains as follows:

> We have more space, more people to love us. We grow up closest to our mothers, but we swim close to all our mems—or some, at least!"…"We have handfriends and pillowfriends among other children in the children's house …. It's hard for me to

> inknow what it would feel like to love only one and have only one soul to love me. (98)

As can be seen in the excerpt, the monogamous couple relations seem absurd, restrictive and unnecessary to Luciente whose social conditioning prescribes sharing love with as many people as one prefers to be a rewarding experience at an early age. In the absence of a heterosexual family structure, the institution of marriage and biological mothering as the primary means of kinship making, the bonds and relationships created between the members of the community are not determined by the degree of biological relatedness but rather, these affinities are shaped by emotional and intellectual closeness. The residents of Luciente's future have created a new vocabulary that provides an alternative set of gender-neutral titles replacing those assigned to the relatives and kin in our Western culture. The members of the community are referred to as 'mems', close friends with no sexual or romantic relations are 'handfriends', the sexual partners are called 'pillowfriends', long standing relationships with or without sexual intimacy are referred to as 'sweetfriends' (Piercy 52). The closest they come to a family structure is what they define is their 'core' which consists of 'sweetfriends', the people with whom they have the longest and most enduring relationship. Cores can be characterized as family units who live in proximity, eat, sleep, laugh, exchange ideas with each other. Friendship and love are the basis for the kinships created in Mattapoisett which are not required to be institutionalized, state sanctioned to be socially recognized and affirmed. Connie, let down and abandoned by her flesh and blood family in her time, finds her need for connection, recognition and appreciation fulfilled only in Mattapoisett, among people who share no biological relation to her, who are from a different century, cultural and historical background.

Frances Bartkowski comments on the kinship making practices of Piercy's fictional setting, stating, "[t]he portrayal of these alternate systems of kinship subverts a fundamental law of the patriarchal sex-gender system with its overdetermined concern for paternity" (77).

This can be read in line with the historical accounts chronicled by Engels in his *Origins of Family,* as detailed in the theory chapter of this thesis. Engels, in his attempt to map out the genealogy of monogamy and women's oppression, demonstrates that affirming paternity to ensure the children's inclusion in the father's clan so that children can have a right over their father's inheritance was one of the organizing principles behind the monogamous family units of our modern society. In Mattapoisett, there is no private property to pass on, biological fatherhood to be affirmed or any paternal rights to claim on the part of the children, which render the kinships based on these concepts anachronic and redundant. Extrapolating on Donna Haraway's call to "make kinship, not babies", xenofeminist thinkers encourage the removal of the emphasis from the biological bonds that perpetuates the 'restrictive' concepts of sameness and familiar in favour of the 'alien', 'the foreign', 'the stranger'. For xenofeminist thinkers, the traditional family structure that depends on embodied reproduction aims to produce the biological continuation of the self by way of passing down the genes of the mother and the father and becomes stuck in a circle of repetitively regenerating the concepts of "sameness" and "familiar" both in social and biological sense. Helen Hester asserts; "We must, in a sense, defamiliarize the biological family, whilst refamiliarizing alternative networks of solidarity, intimacy in such a way that they can become both generalizable and maximally accessible, without falling into the trap of reproducing the same" (66). As expressed in the quote, xenofeminist thought favors alternative modes of "solidarity" over biological bonds created through the traditional family structure for being more "accessible" and creating difference instead of "generational continuity" (67). These 'alternative networks of solidarity' can be exemplified through Piercy's alternative webs of kinship that are created through social experimenting and exploring various sexual-orientations and cultural diversity.

Another socio-cultural implication of the detachment of reproduction from heterosexual intercourse is that it gives rise to openly and freely expressed sexual conduct between the

members of the community. Sexuality is experienced without the taboos attached to the body. Purity, honour, virtue are not concepts associated with chastity of the female body or sexual gratification in Mattapoisett. Once sexual intimacy ceases to be practised for reproductive purposes, expressions of different sexual identities such as homosexuality, heterosexuality, bisexuality, monogamy, celibacy, polygamy are all normalized, accepted and welcomed in Mattapoisett. Luciente explains: "Fasure, we couple. Not for money, not for a living. For love, for pleasure, for relief, out of habit, out of curiosity and lust" (46). Here we see that the people of Mattapoisett do not repress the desires of the body or try to regulate their sexual drives through socially and legally sanctioned concepts such as marriage or family structure, on the contrary, the non-restrictive concept of love is reflected in their sexual conduct that serves as way of social bond making, expression of love and intimacy, bodily stimulation or relaxation. Piercy expresses her vision of sexual freedom in Mattapoisett in her article in *The Guardian*, saying; "I projected a society in which sex was available, accepted and non-hierarchical – and totally divorced from income, social status, power" (Piercy). Piercy strips sexual intercourse off its cultural significance and accompanying normative underpinnings. Sex is not bought and sold or used as an instrument of power against anybody. The heterosexual intercourse, considered the 'regular', 'normal' way of experiencing sexual intimacy is presented as only one possible channel through which sex between two people can be enjoyed because the definition of 'normal relationship' that produces future generations for the continuation of human species is no longer required due to the a-sexualisation of reproduction. People are free to experiment and choose their partners and this experimentation becomes strikingly different from the 20th century readers' world when it involves sexual experimentation by the children of Mattapoisett.

The children are kept engaged in communal life and collective activities as part of their education process. Mattapoisettian education system is based on encouraging the children to experiment, explore their interests and hone their particular skills and talents to engage in useful

and effective work for the community. Magdelena, the head of the 'children's house' describes the purpose of their education system, stating, "We educate the senses, the imagination, the social being, the muscles, the nervous system, the intuitions, the sense of beauty as well as memory and intellect" (104). Here we can see that the basic principle rooted in the education provided for the children is to raise mentally, physically, psychologically strong and independent individuals who can later make conscious, independent choices to define who they want to be, what role they want to undertake in society. All children are nursed and cared in a nursery by individuals who feel the 'calling' to assume that responsibility. After the age of five, children are not allowed to play with toys but they actively participate in the work performed by people from various areas of expertise. As Luciente contends, "They play farming and cooking and repair and fishing and diving and manufacture and plant breeding and baby tending. When children aren't kept out of the real work, they don't have the same need for imitation things" (102). Toys given to children to mimic and imitate the activities of adult life and to help them explore their preferences are made irrelevant and unnecessary due to children's active engagement in the real communal activities. This engagement in adult life activities also involves sexual experimentation among children. Connie is horrified by the sight of two kids, aged between seven to eight, attempting to engage in sexual intercourse in front of adults and this behaviour is normalized and even encouraged. Magdalena reassures Connie by saying, "Our notions of evil center around power and greed—taking from other people their food, their liberty, their health, their land, their customs, their pride. We don't find coupling bad unless it involves pain or is not invited" (104). As it can be deducted from the quote, when taboos and stigmata around sexual intimacy are eliminated by dint of delinking reproduction from the female body, consensual sexual conduct becomes freed from the socio-cultural signification as a special, exclusive activity to be experienced by couples who are old enough to mother and father children. The transition from childhood to proper adulthood through the 'rite of passage'

in which the child spends one week alone in the forest reinforces this independence and individuality required to be a respected adult, integrated into the community of Luciente's future.

The socio-political implications of the brooder technology for Mattapoisett are not limited to the reorganization of human reproductive practices that aim to root out the sexism embedded in Connie's society or the elimination of traditional concept of motherhood and nuclear family structure. In a similar vein, this technology has successfully eradicated racial oppression by way of producing children from a genetic mixture of different races, genes and colours, thus rendering it impossible for any group of people to stand out as privileged or discriminated due to their association with one race or another through their distinct physical features. Luciente explains this revolutionary decision, saying:

> At grand council—decisions were made forty years back to breed a high proportion of darker-skinned people and to mix the genes well through the population. At the same time, we decided to hold on to separate cultural identities. But we broke the bond between genes and culture, broke it forever. We want there to be no chance of racism again. But we don't want the melting pot where everybody ends up with thin gruel. We want diversity, for strangeness breeds richness. (77)

As clearly expressed in the passage, the genetic make-up of Mattapoisett society is determined by carefully chosen mixture of genes that involve higher percentage of dark-skinned people so that the whole population will bear the imprint of diverse races and colours in their genetic code, which makes it impossible for the physical expression of any racial origins to be dominant enough to be recognized or discriminated against. As Luciente explains, the genetic inheritance is separated from the concept of cultural diversity in that 'the bond between genes and culture' is broken in favour of the 'culture'. While the cultural diversity and values are cherished as the source of their 'richness', the biological basis for this diversity is done away with. Cultural

significance attached to the discernible features of biological racial differences is eliminated so that no one can claim superiority to anyone for their racial origins, skin colour or cultural background.

This racial ambiguity of the people of Mattapoisett is presented in tandem with the ambiguity in the physical distinctions prescribed by gender assignment. Piercy's vision of ectogenetic reproduction that does not necessitate heterosexual coupling to warrant the continuation of human species leads to the dissolution of physical features defined by cultural conceptualization of femininity and masculinity. These features, associated with fertility, strength or sexual prowess in an evolutionary perspective, are believed to provide advantages to attract the attention of the opposite sex who is instinctually driven to find a mate to reproduce. However, the elimination of the dependence upon heterosexual intercourse for reproduction has stripped the physical traits of femininity and masculinity of their social advantage in mate searching for the people of Mattapoisett. Thus, gender roles and physical distinctions defined by gendered identities have dissolved. The lack of signifiers that indicate the sex of the individuals creates a society with male and female members verging on androgyny. Physical demarcations between men and women and the dualistic gender categories have collapsed to give way to a more gender fluid society. This is exemplified by Luciente's physical appearance and behaviour. Upon first contact, Connie assumes Luciente to be a male not only because of the lack of physical traits of conventional femininity but also due to the aura of freedom in which Luciente acts and speaks (49). The absence of indicators of sex is not only experienced on a physical level but also a psychological level through a social conditioning that encourages the people of both sexes to embrace and assume traits associated with both femininity and masculinity. This is explicit in the male appropriation of the ability to breastfeed babies. The fact that men who would like to mother are administered hormonal treatment which, in turn, allows them to experience the emotional and physical bonding with the child through

breastfeeding is one of the most striking evidences of the reversal of sex-role attributes. The lack of characteristics that help tell apart the sex of the individuals makes it difficult for Connie to adjust to this new genderless future. One reason for this difficulty experienced by Connie is that in her own time and society, a person's sex and, in relation, gender is an important parameter around which individual identity is formed. Social positioning, expectations, behaviour, personality is shaped based on this gendered identity, however in Mattapoisett, the link between an individual's biological status as a female and her socialization as a woman is radically broken. The members of Mattapoisett exist in the society with the identities they have assigned for themselves, not with the gender roles enforced by social pressures. Connie, who is too steeped in a social structure where in order to familiarize with other people, one immediately feels the need to fit them into the existing mental categories of sex and gender, is puzzled when she fails to define the people she has met in Mattapoisett through their sex. The narrator explains Connie's predicament, saying; "In the old white Grange Hall …twenty-five or thirty people sat around an oblong table... Many of them seemed to be women, although she often found when she heard a voice that she had guessed wrong" (112). In the persons that she has met, Connie looks for physical identifiers that will help her establish a gender identity about that person.

The need for categorization based on gender and sex is ingrained not only in the way we form a set of social expectations for that person but also in the way we talk about, describe and refer to that person. The language employed by Connie and her society bears the imprint of this gender distinction as well. Intrinsic to our systems of thought, the gendered language divides pronouns into specific sex-based categories. The fact that personal, object, possessive pronouns are all gendered, makes it impossible for Connie to separate the sexual status of a person from the way she thinks about or talks about that person. Piercy creates a gender-neutral language in which gendered object pronouns and possessive pronouns are replaced with "per" instead of "him, her, his, her" and "he, she, it" is replaced with a universal pronoun of "person".

The gender specific titles assigned to the members of social circles of Connie's society such as "son/daughter, sister/brother, mother/father, aunt/uncle, man/woman…etc" are taken out of the vocabulary, which demonstrates the emphasis on unifying, humanizing, egalitarian values placed upon the language formation. As there are no socio-political distinctions between the concepts of woman and man in Mattapoisett, there is no need for distinction in the language that informs their social relations to each other. Piercy aims to eliminate all references to the contemporary social constructions of gender identities. This shift in the language can be read both as a radical move implemented to reinforce and perpetuate the emancipatory ideas of the revolution and as a way to root out the last remnants of the sexism from the way the Mattapoisettians think about, refer to and conceptualize one another.

Piercy's construction of such a society purposed towards the eradication of power dynamics that operate hierarchically between the sexes is achieved through the relocation of the reproduction from the female body to the technological site that has set in motion the radical challenging and subversion of the concepts of gender, motherhood, family structure, marriage, romantic relationship, physical appearance and linguistic structures. Although in Piercy's utopian vision of Mattapoisett, ex-vivo reproduction is the driving force behind the abolition of racial oppression, gender roles, women's entrapment within the roles of exclusive mothering, feminist thinkers of the 1970s and 1980s such as Mary O'Brien, Adrienne Rich, Andrea Dworkin, Gena Corea, Robyn Rowland who reject reproductive technologies as instruments of male power that alienate women from nature and their own bodies, as in Gelfrand and Shook's words, "saw in ectogenesis ..... the repudiation of the body and withit women" (Gelfand and Shook 65). As Gelfand and Shook further state, "[t]hey reasoned that women's subordination to men is caused not by women's bodies in and of themselves but rather by men's jealousy of women's reproductive abilities and subsequent desire to seize control of female biology through scientific and technological means" (Gelfand and Shook 65).

Here these feminists reject the notion that female body per se is the source of women's oppression and should be transcended for women's liberation. In this regard, an alternative reading of the post-hierarchical, genderless, revolutionary society of Mattapoisett could be offered to analyze the social organization of the brooder technology in a dystopian light.

Piercy's method for healing the world is through a radical shift in the way we organize reproduction, racial relations, our ethnicity and culture. She eliminates biological reproductive functions of the female body and renders the society mixed race through the same technology so no one can claim superiority to anyone based on their skin color or gender identification. While this elimination ensures cultural richness and diversity, it can be criticized as being essentially grounded in eradication of biological difference. The decision to mix genes and spread it "well through the population" results in every member of the society bearing the same genes at some level, thus creating a form of physical homogeneity through the dissolution of discernible features associated with race and gender. Piercy operates through the premise that as long as there are fundamental differences in biology, whose socio-political organization within the society has historically caused oppression through the sexual division of labour and racial supremacist tendencies, we can never transcend the culturally assigned significance to these differences and never manage to create a completely egalitarian society. Piercy's vision of eradication of the biological difference is inherent in Firestone's politics for a feminist revolution. Firestone argues that women's "nature" is the source of "the fundamental inequality" between men and women and as long as the female body serves to bear and rear children for the whole human race, this inequality can never be surpassed (205). The problem Firestone identifies lies at the embodied reproduction, the anatomical capacity to give birth rather than the social and political meanings inscribed to reproductive capacity of the female body. The body is found guilty for its difference from the male biology and the solution to this problem, as represented in the novel, is through eradication of the biological difference between

the sexes. Firestone seems to be embracing a biological essentialist approach to the politics of reproduction and difference as she tends to be dismissive of the idea that women's oppression is not rooted in the biology in and of itself but it is the patriarchal, capitalist social and political arrangement of this ability that produces this oppression.

In the historical context, starting with the sexual division of labour, necessity to be gestating and nursing for the most part of women's reproductive years, introduction of the private property and the end of matrilineal descent as Engels and Chodorow lay out in their analysis of the concepts of family and mothering, explained in the theory chapter of this thesis, the biological difference has been organized around the tenets of patriarchal ideology and capitalism. Woman's natural capacity for reproduction has been turned into an agent of oppression and subordination that relegates her to the position of a sexual object, incubator and unpaid caregiver. In this regard, Firestone can be criticized for finding the solution to woman's oppression through the technological separation of birth and gestation from the female body as a means of total elimination of difference instead of socio-cultural reorganization of this difference. In the light of this, we can provide an alternative analysis of Piercy's Mattapoisett that would depart from the seemingly utopian elements that define Luciente's society. The fact that Piercy's post-revolution socio-political structure depends on reproductive technologies to completely dismantle the hierarchical power relations between the sexes and to emancipate woman rather than reorganization of difference can be read as essentialist and gender dimorphic in the sense that it reproduces the essentialized notion of womanhood defined through biology. While ecofeminists essentialize female identity though glorification of female capacity to gestate, give birth and rear children and recognize these processes as women's sacramental connection to nature, Piercy, in her utopia, attempts to break this bond between women and nature through eradication of reproductive and physical difference which reinforces the idea that biology is the reason for either oppression or glorification of women thus providing only a

reversal of the biological essentialism that she wishes to deconstruct and challenge. In her article titled "Imagining a Different World", Rosie Harding comments on the dissolution of physical and reproductive difference in Mattapoisett, stating, "In certain respects, this can be described as an essentialist argument, wherein the root cause of women's inequality and oppression is wholly and completely in the body and linked to reproductive ability" (455). As Harding explains, transcending the bodily differences between men and women is presented in a utopian light that has the potential to create a gender-fluid society; however, in close analysis, Piercy's erasure of difference might be read as denoting to a genderless society that is based on physical and racial homogeneity. On this note, politics of difference in Mattapoisett can be read in light of xenofeminism's gender-abolitionist approach. This approach does not call for removal of sexual characteristics or radical homogenizing for the sake of eliminating power dynamics, which might give way to another form of despotic control and social regulation system, xenofeminism aims to abolish the binary gender model wherein dualistic categorizations of female/male, masculine/ feminine are used to oppress, discriminate, capitalize on, polarize, marginalize and politicize the female body. Xenofeminism offers multiplication of gendered identities and sexual orientations so that the spectrum of distinct characteristics would invalidate any claim to the notion of a socially acceptable, "normal" identity. As Helen Hester explains:

> The phrase 'gender abolitionism' risks coming across as a demand for the paring back of gender – a demand that difference itself be abolished. This is not what we are advocating for at all. XF is not a call for gender austerity, but for gender post-scarcity! It does not seek 'the eradication of what are currently considered "gendered" traits from the human population' …Far from producing a genderless world, then, this form of abolition through proliferation is suggestive of a multiply gendered world. (29)

As expressed in the quote, abolition of gender is not encouraged to be carried out through the

erasure of difference between the sexes but rather springing forth of countless genders and sexes insomuch that gender will not be used as a means of social and political stratification. In this regard, xenofeminist position towards difference can be read as conflicting with Piercy's method of gender abolition in Mattapoisett. Although Piercy, too, aims for the elimination of cultural significance assigned to gender and sexual characteristics, she purges reproductive and physical difference between the sexes out of her futuristic society. Although the reader is informed by Luciente that the decision to exclude the female body from reproduction processes was taken collectively and voluntarily by their ancestors (77), employment of the brooder technology as the sole provider of human reproduction means that women are not free to make a decision for live birth, to experience the full capacity of their natural biological bodies. Throughout the novel, it is never explained how the decision makers of Mattapoisett have made sure that no female will conceive and give birth. Possible methods to achieve this result could be regularly administered drugs to prevent pregnancies or surgical intervention to the female body that would eliminate the capacity to conceive and gestate. This would necessitate every female member of the society to be operated on once they have reached puberty since sexual experimentation is welcomed and encouraged in Mattapoisett. The reason why this procedure is not explained by Luciente could be that the image of a doctor surgically manipulating a woman's body not to conceive or administrating medication regularly would bring to mind the image of forced technological intervention to the female body to "help" couples have children through reproductive technologies, abortions, forced hysterectomy, excessive use of drugs exemplified in Connie's time. Piercy's vision of ideal society in which women are not subjugated due to their bodily functions is portrayed as utopian and effective but, on further investigation, one might see similar practices applied to obtain the opposite results. The ongoing "mixers- shapers" debate in Mattapoisett is another example demonstrating that depending on technology for the creation of an ideal society would be susceptible to manipulation and abuse

of power since the definitions of what is good, appropriate, acceptable are open for interpretation. While there is a consensus on using the gene screening technology to identify the "defective genes" before the birth of the child, there are two fractions in Mattapoisett society identified as mixers and shapers with conflicting ideologies on the utilization of the brooder technology. While mixers are careful to screen the genes only for birth defects but keep the gene pool mixed and random, the shapers believe in the necessity of genetic intervention for selective breeding of desirable traits (171). Luciente and her circle, being on the side of the mixers, assert that the concept of selective breeding will result in a "power surge" and re-installation of hierarchical structures within the society. This ongoing and unresolved debate could be read as emblematic of Piercy's own reservations that a technology, powerful enough to revolutionize human reproduction can easily be abused in the wrong hands and run the risk of being employed for "eugenics" purposes. This vision is most strikingly evident in chapter 15 of the book where Connie, in her attempt to contact Luciente, finds herself in an alternative future where technology has changed human existence on the planet drastically. Connie is able to reach this future through a woman named Gildina who lives shut up in a small, windowless, "segregated and guarded" (217) apartment in New York as a sex slave. This totalitarian repressive future has its origins rooted in Connie's society. The society described by Gildina is the ultimate embodiment and hyperbolic equivalence of Connie's racist, sexist, misogynist, hierarchal society that might come to exist if Luciente's future does not prevail and if Connie herself does not fight to create a change. Luciente explains Connie's critical position in the web of potentialities, saying; "Yours is a crux-time. Alternate universes coexist. Probabilities clash and possibilities wink out forever" (133). It is made clear that the future is not a fixed destination to reach, but it is in the process of being shaped and determined by the actions of people in the present. Connie comes face to face with Gildina's world and witnesses literal commodification, objectification, fragmentation of the female body by the patriarchal, capitalist social order and

employment of technology as a magnified, hyperbolic version of the technological manipulation practiced in her time and society.

Gildina 547-921-45-822-KBJ is "a built-up contracty", "cosmetically fixed for sex use" (225). Her body has undergone a series of operation since the age of fifteen that endows her with lightened skin color, "a tiny waist, enormous sharp breasts" (216) oversized hips, buttocks and tiny feet. These surgical modifications which are not applied in compliance with the natural human body ratios suitable for free movement and mobility makes her look "as if she could hardly walk for the extravagance of her breasts and buttocks, her thighs that collided as she shuffled a few steps" (216). She is rendered physically restrained within her own body to a degree that makes even walking difficult for her. Her cosmetically reconstructed body is fetishized, rendered a sexualized object of desire, a 'cartoon of femininity' that is created out of the male erotic fantasies, which serves to reify the patriarchal exploitation of women. Linguistically, the name "Gildina" which can be associated with "gild" or "gilded" meaning something covered in gold or golden color is highly suggestive in the way that it reflects Gildina's position in her society as an object of decoration, a shining ornament created for the purpose of pleasing the eye. This can be read in contrast with Luciente's name. "Luciente" can be translated as "shining", "bright", "lucid" which embodies Luciente's position in Connie's life. Luciente making contact with Connie during one of the lowest points of her life represents light and clarity. Through Luciente, Connie discovers the possibility of a better future and her individual role in bringing that future into existence.

Gildina's body can be characterized as a site for political contestation and representation. It is made disproportionate and uncomfortable for her to inhabit. She carries her body around as if it is a luxurious but uncomfortable piece of dress worn to impress a demanding, voyeuristic audience. The audience as we understand through Gildinia's depiction of her world comprises the corporate men to whom cosmetically altered women are contracted

as sex slaves -the contracts could be ranging from one-nighter to ten years. The cost of stepping outside of this exploitive relationship, to break the contract results in the dissemblance of the female body and harvesting of the organs to be "donated" to the wealthy, powerful class of men, referred to as "richies" who can live up to two hundred years by means of these organ transplants and live in space platforms above the surface of the polluted earth (224). The people of lower classes in this strictly hierarchical society live on the surface where air is "thick" and yellow", and have "brain deficiencies from protein scarcity in fetus and early childhood" (225). The conflict between ecology and technology present in Connie's society reaches to its natural conclusion in Gildina's world wherein natural atmosphere and ecological balance are destroyed by the patriarchal, capitalist ventures. The contaminated air and desolated soil do not allow any crops to grow on earth. People eat capsules consisting of "coal and algae" (222) for food. The polluted atmosphere makes breathing toxic and there is no natural environment to enjoy. Gildina, living on the 126th floor of a plaza admires the "pale gray-blue" (128) colour of the sky since all she has seen before moving there is a yellow, polluted sky which she believed to be normal. This complete degradation of the natural world brought about by unsustainable economic activity and insensitive use of technology is symbolic of the world that ecofeminists aim to prevent from coming to existence. Ecological Movement, Second Wave Feminism and technological intervention into both female body and ecological balance of Piercy's time is brought together in this dystopian vision to warn the reader of the possible world the following generations will inherit if the people of the present choose inaction over activism.

Motherhood in Gildina's society is another social arrangement that is handled under oppressive, totalitarian, exploitative conditions. Women whose bodies are turned into living, breathing tools of male sexual fantasies are kept and treated as a separate class than women who undertake the reproduction. Women who give birth are called "moms" which denotes to more than just giving birth as a function of the female body. "Moms" signify a class of women

whose only duty and aim in life is to reproduce upon request of the corporates who own them. As Gildina explains to Connie, "they're cored to make babies all the time. Ugh, they're so fat!" (218). This arrangement can be read as a criticism through exaggeration of Connie's society's way of essentializing women by way of relegating the female body to its reproductive capacity, i.e. to the position of incubators. Even though Gildina's world has technological ability and tools for artificial reproduction, the socio-political organization of the science and technology does not make way for any practices that will bring about emancipation or equality, which underlines Piercy's position towards technology that in and of itself technology is neither evil nor benign but it is the social, cultural, political conditions that inscribe the meanings and values on the technological inventions of a specific time and society. Motherhood and reproduction within the world run by patriarchal, profit-oriented "multis" which are international corporations that has replaced governments and to which everybody belongs to is another tool of oppression. People of this futuristic nightmare are enslaved, objectified, abused, and exploited as merchandise. The commoditization of the body has reached a point at which full-fledged ownership of the human body and organ trade for a living, forced reproduction are prevalent practices.

In this dystopian future, men are not free from being objectified either: while in Mattapoisett, Piercy presents us with a technology that eventually leads to the dissolution of gender identities and the elimination of physical characteristics associated with the notions of femininity and masculinity, in Gildina's world technology is instrumentalized to widen the gap between the traditionally held assumptions about female and male physical appearance. Women are fetishized and re-constructed to fit into the male erotic fantasies. In this scenario men are also subjected to technological intervention and objectified to become the stereotypical image of masculinity. We learn from Gildina that Cash, the man she has been contracted for two years, has been trained to control and ignore his bodily needs, reactions and emotions such as physical

exhaustion, hunger, sleep, fear, etc. He is re-engineered to become a "fighting machine" (224). Gildina proudly talks about the dehumanization of Cash into a cold-blooded killer as if it was a success, she says: "He has those super neuro-transmitters ready to be released in his brain that turn him into just about an Assassin. I mean not really, he's fourth level, but he's in that direction, if you gape" (224). Here we see that the technology that is used to enhance humanly possible capacities of the male body to provide an edge in better fighting skills, information gathering and survival methods is not applied to the female body.

Women's re-engineering is shaped by their position in the society as mainly existing for sexual gratification of men which renders them small and defenseless against physical threats. The "super neuro-transmitters" inserted in Cash's brain is used to turn off his emotions which gives him leverage for killing when necessary. This brain control mechanism is a technology that might have evolved from transmitters implanted into the brains of the mental patients in Connie's time to keep the thoughts and behavior of the patients under control. The dialytrode could be read as the prototype of the technology employed in Gildina's world both to dehumanize men into murderers and; to screen and control thoughts to prevent dissent in society. Advances in technology in Gildina's world has not only produced humans turned into killer machines but also brought about actual robot-like creatures to be used to get rid of enemies and rivals of the "richies" in a world without a government to enforce rules or provide a justice system. This chaotic world is the ultimate embodiment of a capitalist, patriarchal, consumerist social order whose capacity and employment of technology comes in sharp contrast with the application of technology in Mattapoisett. Piercy compares and contrasts the possible scenarios in which socio-political ideologies of a given society inscribe the emancipatory or oppressive implications to the techno-scientific progress. Through Gildina's society, the reader is given a sneak peak into a world that might come to existence if the people of the present do not fight to change the status quo, the social and political conditions that both

give rise to and control the direction of technological progress.

The identities and embodied experiences interwoven with technological fix throughout the novel is evocative of Donna Haraway's enunciation of the cyborg which she introduces in her "Cyborg Manifesto", as explained in detail in the introductory chapter. Piercy's novel can be read in critical dialogue with Haraway's manifesto especially when considering the fact that Haraway herself declares *Woman on the Edge of Time* as a source of inspiration behind the manifesto in her foreword to "Cyborgs and Symbiants". As Haraway points out, "Influenced by Piercy in my 'Manifesto for Cyborgs', I used the cyborg as a blasphemous anti-racist feminist figure reshaped for science-studies analyses and feminist theory alike" (xvi). In Haraway's vision, the "cyborg" is an unsubmissive, rebellious political figure that is not concerned with fitting into any dualistic distinctions or identities but rather it transgresses the binary oppositions deeply entrenched in the Western cultural and political structures such as self/other, mind/body, culture/ nature, male/female, civilized/primitive, reality/appearance, whole/part, agent/resource, maker/made, active/passive, right/wrong, truth/illusion, total/partial, God/man (Haraway 58-59). The body of the cyborg itself relentlessly breaks down and blurs these boundaries and demarcations in order to deconstruct the culturally inscribed meanings and values attached to these dualistic, hierarchical categories. In the novel, cyborgization of the bodies is undertaken both as existing as a result of oppressive, intrusive scientific and technological practices and as a result of progressive technological intervention that aims for a post-gender, post-hierarchical, post-dualistic, post-racist social order. Reading Piercy's projection of the social relations and embodied experiences in Mattapoisett, one might see the inspiration behind Haraway's unapologetically independent and rebellious figure of the "cyborg". Harraway, provides us room for interpretation and extrapolation of the society and the citizens of Luciente's world through the socio-cultural and political implications her cyborg figure evokes. We can argue that the people of Mattapoisett fit more conveniently to the figure

of the cyborg than the surgically and genetically modified bodies of Gildina's society or the mental patients whose thoughts and emotions brought under control through the insertion of electro-transmitters into the brain in Connie's society.

People of Mattapoisett, despite leading a lifestyle rooted in nature and ecological harmony, can be argued to be cyborgized in their ontological, social and political status. The members of Luciente's futuristic world are not "of woman born" to invoke Adrienne Rich. Their genetic material is carefully mixed and prepared before in-vitro gestation begins in the tanks that are used as substitute for the female womb. These machine-born individuals of the future defy the boundaries between normal/abnormal, artificial/ organic, human/machine, which allows us to characterize them as "cyborgs" in Haraway's terms. The a-sexual, de-gendered, de-biologized reproductive practices of Mattapoisett presents another junction point with Haraway's vision. The cyborg is not born, it is artificially produced free from any sexual union between a man and a female. The cyborg body is not bound by the rules of sexual reproduction but reproduces itself through inorganic practices. Dominant definitions of sexual identities are submitted for reconfiguration in the post-gender technological world of the cyborg. The biological family unit is rendered obsolete in this vision, as Haraway posits, "[u]nlike the hopes of Frankenstein's monster, the cyborg does not expect his father to save it through the restoration of the Garden; that is, through the fabrication of a heterosexual mate.....The cyborg does not dream of community on the model of the organic family" (7). Here, the body of the cyborg is freed from the burden of assuring the continuation of the species through embodied reproduction just as the female members of the Mattapoisett do not perform the task of biological motherhood. The cyborg subverts the notions of familial bonds and kinship-making that depends on biological ties as is the case for the Mattapoisett community whose members relay on intellectual, emotional, physical intimacy as the basis of kinship-making practices. Cyborg as a political entity is above and beyond the oppressive gender

stereotypes and masculine/feminine binary oppositions. The brooder technology of Luciente's world that allows disembodied reproduction is responsible for the deconstruction of the concepts of motherhood, marriage, biological family and the dissolution of the physical characteristics associated with a specific sex or race. Elimination of gender roles, sexual division of labour, physical signifiers of sex and gender can be read as the ideal condition that gives birth to the cyborg, born to a union of technology and organism, natural and artificial, human and machine. The cyborg represents the blending and dissolution of all the dualistic categories towards a unified harmony, freed from any power structure or hierarchy, which is basically the building block of Piercy's utopian projection of Mattapoisett. In this regard, the citizens of Mattapoisett envisioned by Piercy in 1976 presents a foundation upon which the figure of the cyborg as a political, social and fictional entity has been built.

Although Haraway's cyborg manifesto is a feminist, emancipatory enterprise that aims to "build an ironic political myth faithful to feminism, socialism, and materialism" (Haraway 1), the entanglement of technology and the human body does not always denote to the politics of liberation. Under the socio-political circumstances that Connie experiences technological intervention, the cyborgization of the body becomes an oppressive, restrictive, abusive social control mechanism applied through painful processes. Connie, apart from being subjected to involuntary hysterectomy, excessive administration of drugs, electroshock therapy undergoes the surgical operation in which 'electrodes' are inserted into her brain to monitor and regulate her thoughts and emotions before she can act upon them. This unnecessary insertion of technological tools into her body is a bio-medical mind control mechanism that aims to force Connie and other patients not to deviate from a socially approved set of behaviors. The scene where Connie undergoes this operation is highly rich in its connotations. The narrator describes this intervention as follows:

> First Dr. Redding drilled on her skull. It did not hurt; it was merely horrifying. She could feel the pressure, she could feel the bone giving way, she could hear the drill entering. Then she saw them take up a needle to insert something...They were dyeing her and she was dying. The pun hung in her penetrated brain. (211)

Here the doctors' technological and medical penetration into Connie's brain is used by Piercy to deliberately evoke an imagery and metaphor for rape in readers' mind to depict society's violation and manipulation of the female body in a blatantly obvious fashion. Connie through the insertion of the electro transmitter into her brain comes closer to the predicament of the women and men in Gildina's world. Surgically altered, turned into a human-machine organism, a cyborg to be better monitored, controlled, manipulated in the body and the mind. The cyborg metaphor can be most explicitly observed in Gildina's society where the effects of insensitive, profit-oriented application of technology can be felt on the natural environment, deepened social hierarchies and gender dynamics as opposed to Mattapoisett where technology gives way for emancipation from strictly regimented hierarchical structures and binary oppositions. The assassin cyborgs, the genetic and surgical enhancement applied to the male body as a way of weaponization, presented in Gildina's world signify the possible abuse and exploitation of technology to deepen the gap between gender dichotomies. Gildina herself can be characterized as a cyborg - her feminine features are magnified and exaggerated through technological interventions. She is turned into a sex doll, an automaton without any agency, choice or mental ability other than serving to the hands of power wielders. Haraway acknowledges this problem in her manifesto, asserting, "The main trouble with cyborgs, of course, is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins" (7-8). Here Haraway identifies the weaponization and abuse of the organic body through intrusive technology as appropriation of power and authority by the parties who control these technologies, however,

she also envisions the possibility that the same technological power can be used to end with these unequal power dynamics and to eliminate the hierarchies enmeshed in the patriarchal, capitalist world. Haraway's vision heralds the possibility of Mattapoisett where identities interlaced with technology dissolve all existing patriarchal binary thought systems that have historically resulted in categorization, oppression and exploitation of women and marginalized groups.

The fact that Connie enters into Gildina's world just after she is inserted with the electrodes is suggestive. It brings up the possibility that Connie's visit to these various futuristic societies is actually a projection of her hyperactive imagination that searches for an escape route from her restricted and oppressive living conditions in the hospital. We can extrapolate that since the insertion of the transmitter renders her deprived of her ability to act upon her thoughts and emotions, her mind takes over and guides her as a self-defense mechanism that provokes her to take action. She unconsciously creates this other futuristic society where what happened to her in her own society happens to all women and men as well but in a more violent, hyperbolic, state-sanctioned fashion. Her creation of this alternative universe under the trauma of the surgical intervention into her brain, the psychological and mental rape she is subjected to is a way of convincing herself that if not acted upon, the future is even more nightmarish and bleak than her reality. In this regard, we can read the characters Connie comes across in these projected futurities as her alternate selves. Luciente and Gildina, both associated with light as discussed above, can be characterized as Connie's possible reflections in a web of probabilities. They represent what she might have become under different socio-cultural conditions. As Libby Falk Jones asserts, "Piercy creates fusion through the web of character relationships radiating from Connie" (123). In line with this, we see a part of Connie reflected in Luciente as a confident, strong, unsubmissive, loving, nurturing woman with whom Connie associates and longs to become. She considers Luciente, "as a fraction of her mind, as a voice of an alternate

self" (Piercy 190). Gildina represents another part of Connie, a part of her that is rendered passive, incapacitated in her body, victimized by the self-serving social agents. These alternate selves and possible societies Connie connects either through a telepathic ability or through imagination brings Connie to a point of confrontation with her own victimization, to a point where she needs to choose between actively grabbing power to fight against her oppressors to bring about a change that would lead to the possibility of Luciente's future or stay passive and watch her daughter inherit Gildina's world. At this point, Piercy's underlying political agenda is made more explicit with Connie coming to the realization that even someone who is impoverished in her physical, mental, psychological, financial, social abilities such as Connie can make an individual contribution to shape the direction of history. Piercy's fictional presentation of the notion of nonlinear history is suggestive of the necessity of political action. In this view, there is not only one outcome in which future will materialize, that is to say, the results of todays' actions will pave the way for a spectrum of possible continuums that might come to be.

Connie is enlisted to make a difference in history to make the future of Mattapoisett is the one that come to be. Luciente challenges Connie to understand her specific, individual role to create a societal change and questions her and her society's long–standing passivity in the face of victimization. She asks, "Connie! Tell me why it took so long for you lugs to get started? …How come you took so long to get together and start fighting for what was yours?" (133). Here Piercy's call for collective action and collaboration to create political reform is conveyed through Luciente who urges Connie to realize her own power to resist and fight back. Connie, given no possibility or chance to live a decent life realizes that her way of fighting back a system that marginalizes, oppresses, abuses her would be through violence as well. In an open rebellion, she murders six doctors who are responsible for the abusive use of technological and biomedical instruments upon the mental patients with the poison she stole from her brother's

house. She proudly declares “I murdered them dead. Because they are the violence-prone. Theirs is the money and the power, theirs the poisons that slow the mind and dull the heart. Theirs are the powers of life and death. I killed them. Because it is war” (282). Connie’s ordeal with the medical establishment and social agents of her society leaves her restricted in her available options to fight for her freedom, her personality and free will. As evident in the quote, Connie adopts a language of war in which the doctors’ treatment plan becomes symbolic of their battle strategy – the technological equipment registers as the weapons of war and the hospital as the battle field she is locked in a struggle to survive.

As someone who has always been subjected to violence and abuse as a way of ensuring her compliance with the normative code of behavior, Connie can be characterized as a product of her society, a product of her oppression, her lack of communication, lack of self-expression, lack of self-respect, lack of any outlet of anger and frustration. She is a victim of the systematic violence and a victim of internalizing violence as a way to assume power. Under these circumstances, Connie’s act of violence cannot be judged separately from the treatment she has received and endured throughout her life. The act of killing as a final solution to the abuse exerted by the doctors of the mental institution is also suggestive, when read as a metaphor, of the inversion of the life-giving, procreative power of women. Connie, disfranchised and paralyzed in a system that has stripped her of her ability to give life, mother her daughter, finds her power though the act of killing - taking life. Connie, when left unable to fulfill her desire to mother, adapts to the patriarchal value system that glorifies aggression and violence to obtain power.

The problem of justifying the use of violence to pave the way for a revolution that would put an end to political, physical, racial, sexual, psychological, bureaucratic violence and marginalization is explored in the novel and remains ethically contested. Connie asks Luciente if it is acceptable to use violence against somebody who exercises power over her, who takes

away her freedom and agency, to which Luciente replies, saying: “Power is violence. When did it get destroyed peacefully? We all fight when we’re back to the wall—or to tear down a wall.” (279). Luciente’s world which allows no transgressions against a person’s body, mind, freedom for self-expression justifies violence as a self-defense mechanism. Being subjugated, coerced into a life one does not consent is to be a target of violence, thereforequestions as to whether violence can be fought with violence, or whether the only way to get rid of a perpetrator is to use the perpetrator’s weapon upon himself/herself are left to be answered by the reader, suggesting that there is not one established and acceptable answer that Piercy as an author can provide. The reader is not given the chance to see if Connie’s violent act inspires an uprising against the institutions of the capitalist patriarchy that privileges capitalist, male hegemony while marginalizing the ones who step out of their predetermined social roles. This kind of domino effect might be used to justify the violent act undertaken by Connie in her fight against the systematic oppression and marginalization. However, Piercy does not try to justify Connie’s use of violence and her own open endorsement of armed struggle to reach political ends on the grounds that the act has actually succeeded in bringing Mattapoisett into existence. The society of Mattapoisett remains a possibility even at the end of the novel. Piercy does not give us a road map to a total emancipation and happiness but one might argue that what Piercy tries to achieve through Connie’s final actions is to show the reader that utopia is a not a point of history far away and beyond our grasp, it is not a vision the reader wishes to be born in, the utopia is a concrete, tangible future that needs to be created by the actions and resistance the reader undertakes today. Piercy does not ask the reader to sit and wait for the better days to come, the whole narrative can be read as a call for revolution, a wake-up call to realize the failings of the society that we will pass down to the following generations, a call to fight to bring into existence the best possible scenario we can achieve, the triumph for individuality, freedom,

egalitarianism, ecological harmony and balance, eradication of gender roles and gender categories.

In conclusion, *Woman on the Edge of Time* can be read as a contribution to the debates involving polarized opinions about feminist considerations on women's relationship to science and technology. This strand of feminist critique, which investigates whether and if we can reshape science, medical and bio-technologies in pursuit of emancipatory ends is manifest throughout the text. In three alternative social and political organizations, Piercy brings the reader to a dramatic confrontation with the potential emancipatory and oppressive uses of the reproductive technologies and how these different approaches to the application of technology can evolve and devolve our concurrent political and cultural trajectory. Connie's 1976 New York where she is exposed to systematic oppression at the hands of social agents and medical establishment is contrasted with two other possible social settings, one of which is the post-revolutionary world of Mattapoisett. In this society, ecological, technological and cultural revolution has changed the course of history from a patriarchal, capitalist, consumerist, hierarchical social structure to an urban setting in which technology serves to dismantle hierarchical power dynamics, gender dimorphism, oppression of women and marginalized groups. The third social setting in which Piercy engages with the issues of technology, female body, ecological sustainability is the world of Gildina. This world presents a possible future that evolves from Connie's society in which misogynist, sexist, racist tendencies have deepened through insensitive application of technology to a degree that the oppression, marginalization, objectification and commoditization of the female body and strict social stratification are brought to its peak. Through the comprehensive analysis of socio-political implications of the technological intervention into the body, with a focus on reproductive technologies in Piercy's three different timelines, read in parallel with ecofeminist and xenofeminist approaches to the technological appropriation of the human reproduction, it can be stated that the reproductive

technologies are themselves devoid of any inherent oppressive or emancipatory implications for any specific gender or group of people but they offer a discourse on wide range of potentialities which reflect the ideologies and values of a specific society and time period inscribed on these technologies, a point implied by Piercy in the narrative. The critical dialogue between the anti-naturalistic approach of xenofeminism, informed by the politics of Donna Haraway and Shulamith Firestone and Piercy's vision offers a discourse that underlines the technological potential to change "nature" and what is considered "natural" for the sake of creating a more egalitarian and emancipatory future as epitomised in the context of the novel through the re-evaluation of the concepts of motherhood, romantic relationship, sexual intimacy, friendship, marriage, nuclear family, sex-role attributes by dint of the de-feminized, a-sexualized, un-biologized reproductive arrangements in Mattapoisett. Piercy's aim to achieve a society free of sexism, capitalism, greed and ecological destruction through a technological revolution has been analyzed within the ecofeminist thought as well. Piercy's conflation of ecocriticism and women's oppression is evident in all three distinct timelines wherein the insensitive and potentially destructive use of technology on the female body is echoed by the destruction of the ecological balance as well. However, Piercy renounces the ecofeminist association of women with nature, which is believed to be a natural result of women's reproductive capacity and severs this connection between the female body and human reproduction through ectogenetic gestation and birth in Mattapoisett. In this regard, the novel provides ground for both xenofeminist and ecofeminist investigations as to their approach to reproductive technologies, concluding in a liberal standpoint through which the reader can extrapolate on both potentially oppressive and liberating implications shaped by the politics and social structures into which the technologies are developed.

Piercy is strongly political in her tone to describe her perceived utopian society, she does not only observe, pinpoint, bring into attention and critique the power dynamics

entrenched in the socio-cultural frame based on sex, gender, racial and economic position but she also aims to provide a blueprint for a revolution that can change the course of history and the way we organize our relationships to nature, technology and to each other. This political and ecological map she draws out for the reader and Connie aims to charge us towards action for a sustainable and tolerant future wherein gender inequality, and oppression of marginalized groups are resolved through the utilitarian use of technology.

The potential implications of reproductive technologies on the female body, women's reproductive agency, the question of identity, women's physical and psychological integrity are also foregrounded in Fay Weldon's *The Cloning of Joanna May*, a novel, which, published more than a decade after the publication of Piercy's work engages with similar polarized and diverse feminist approaches to reproductive technologies but through the lens of a humorous critical outlook.

CHAPTER III

"A Woman Plus Repetitions": The Politics of Human Reproductive Cloning, Subjectivity and Kinship in *The Cloning of Joanna May*

The Cloning of Joanna May, published in 1989, is yet another literary exploration of socio-cultural implications of reproductive technologies with a specific focus on human reproductive cloning. The narrative offers insight into the intricacies and complexities that human reproductive cloning generates in terms of decade-specific anxieties over the technological takeover of the reproductive freedom, women's lessened/lack of agency over their bodily reproductive processes and crisis of identity by dint of bio-technological conception. Weldon offers a dystopian account of possible consequences when power of science and technology is brought together in the hands of profit-driven, misogynist male scientists and businessmen who seek to utilize them for the personal ends rather than in ways to serve public interest, rendering women passive and incognizant of the consequences of being at the receiving end of the scientific experimentation. Weldon subverts the potential abuse of reproductive technologies that targets the female body and women's agency with a feminist spin to empower her protagonist into re-creating her individual identity by appropriating the power of female solidarity.

The Cloning of Joanna May extensively questions and destabilizes the authority of the male-dominated medical establishment in the sphere of reproduction by disclosing possible atrocities these technologies are suspect to be employed for against women. *Woman on the Edge of* Time (1976) and *The Cloning of Joanna May* (1989), two novels under scrutiny within the scope of this thesis, can be read in intertextual dialogue in terms of socio-political circumstances of the time of their publication. They both engage with the basic tenets of Green

Movement and Second Wave Feminism of the 1970s that question and deconstruct the culturally conceived notions of motherhood, family structure, historically validated sexual division of labour, gender dichotomies, institution of marriage, woman and nature relationship, domination of nature by capitalist ventures, male monopoly over technological landscape, while at the same time interacting with the public debates and discourses on reproductive technologies galvanized by the advances in the field of ectogenetic research and in-vitro fertilization marked by the birth of world's first test-tube baby Louise Brown in 1978. Both writers urge the reader to take a critical distance and see through the hierarchical power dynamics rooted in the medical, scientific, technological realms whose implications manifest in the everyday experience of the women who have been victimized in the hands of patriarchal probing and scrutiny into their bodies in the name of reproductive help. While Marge Piercy approaches the subject in question with a more serious tone, offering the reader a roadmap to the radical utopian society of Mattapoisett revolutionized through a series of socio-political, ecological, technological re-organizations among which ectogenetic birth stands out as bearing the most profound emancipatory repercussions for women, Weldon's tone can be characterized as ironical and humorous in presenting a world of techno-science dominated by the "mad male scientists" and corporate men going in over their heads in trying to control and subjugate both women and nature. Their professed control and competence in dealing with the consequences of the actions they set in motion is satirized by Weldon throughout the narrative. Thus, this chapter aims to investigate the ways in which uninformed and non-consensual application of reproductive technologies under the sway of patriarchal, capitalist medical establishment as represented in the novel problematize women's agency, autonomy, the concept of motherhood and traditional notion of kinship making, in critical dialogue with the ecofeminist and xenofeminist approaches towards reproductive technologies.

Set at the backdrop of the Chernobyl disaster of 1986, a focal point in history where the explosion in the Chernobyl nuclear plant have left the nuclear core exposed, emitting large amounts of radioactive substance into the atmosphere, infiltrating into the air, soil and water at the same time and shuttering the credibility of the scientists and government institutions that claimed safe mastery over the technology, *The Cloning of Joanna May* entwines the anxieties accompanying ecological disasters brought about by the institutional failures of governments and industries dominated by male supremacists and the feminist anxieties over the female reproductive body left vulnerable to be manipulated for solipsistic reasons through the reproductive technologies applied by the patriarchal medical establishment within the same male supremacist culture emblematized in the novel by Carl May who is both the director of British Nuclear Power Station, Britnuc and Martins Pharmaceuticals. The conflation of the reproductive technology and nuclear science in their implications of appropriating the procreative power of the female body lends the narrative to an ecofeminist investigation. The non-consensual and uninformed application of the human reproductive technology on the female body bears heavy consequences for the female psyche as well. Confrontation with her clone selves drives Joanna into a crisis of identity. This loss of the sense of a stable self that Joanna May experiences due to her ambiguous status towards her cloned selves will be analysed through the psychoanalytic critical approach building upon the theories of Freud, Lacan and Zizek that offer insights into the possible traumas on the psyche of the individual whose bodily, mental and emotional integrity is brought under threat through her confrontation with the fact that she has been multiplied into four more versions of herself. These cloned-selves who both register as familiar, extensions of the self and as unknown 'others' force the traditionally conceived notions of sisterhood, motherhood, friendship, social and biological relationships into a zone of contestation. The boundaries between made/born, technological/organic, natural/unnatural, self/other are all trespassed and blurred throughout the narrative. These

interlaced identities open for re-construction and re-configurations will be read in the context of postmodern modes of kinships created not through biological bonds based on traditional embodied reproduction but that are technologically facilitated affinities, a concept underlined by Donna Haraway and within the Xenofeminist Manifesto. Weldon uses Joanna's equivocal relationship with the clones to offer a new mode of kinship making in the post-modern technological age which will be referred in this thesis as clonehood. At this point, it is important to note that the subject of reproductive technologies, especially human reproductive cloning as a politicized arena wherein converse ideological standpoints are imbricated is quite complex and multifarious in its implications crossing across various disciplinary fields such as, ethics, biology, sociology, psychology, philosophy and so on. Weldon herself comments on the complex and convoluted nature of the subject in question and the difficulty she has experienced during the production of the novel, stating:

> This, as I say, is the penalty of thinking one day, when I read in my Sunday paper a report from a Canadian laboratory which said that the cloning of human beings was possible but there was no call for it … And then trying to turn that simple thought into a novel and discovering that, far from being simple, it was probably the most complex subject I had ever tackled; the sum, as it were, of all the novels that had gone before. ("Of Birth and Fiction" 208)

Having underlined how reproductive technologies can be analysed through its wide ranging implications in various fields of study, this chapter will limit its focus of analysis to the intersections of ecofeminist, xenofeminist approach and the question of identity brought fore by the emergence of human reproductive cloning.

The public discourse and debates on cloning intrinsic to Weldon's dramatization of the issue has a long history of scientific research, experimentation and accomplishments that have captured the headlines, firing public fascination and moral outrage every time the issue have

resurfaced. The word "clone" derives from the Greek word "Klown" which means "twig" to denote to the "genetically identical groups of plants" (Apostoli 3). However, the meaning was twisted in 1963 during the symposium titled "Biological Possibilities for the Human Species in the Next Ten Thousand Years" when biologist J.B.S Haldane employed it during his speech to refer to copying biological organism including humans (Ferreira 5). The first step taken towards the cloning of a biological organism came in 1938 when the German scientist Hans Spemann who first produced the idea of cloning, transferred the nucleus of an egg cell of a salamander into an enucleated egg which was then artificially stimulated into dividing and forming an embryo that bears the same genetic material with the donor cell. This technique referred as a "fantastic experiment" by Hans Spemann was a rudimentary try at the Cell Nuclear Transfer (CNT) that is used today ("The History of Cloning"). Since then, various scientists have contributed to the field of cloning over the years. Robert Briggs and Thomas King successfully cloned a tadpole through nuclear transfer technique in 1952, proving the viability of the technique, an important milestone that encouraged next generation researchers to build their work on these observations. In the 1960s, the British biologist John Gurdon was able to produce a clone through transferring the bowel cell of a tadpole into a frog's enucleated egg. Although the experiment was successful, the tadpole never grew into an adult frog ("A Brief History of Cloning"). The attempts to clone higher organisms intensified in the 1970s with the scientist Karl Illmensee, claiming to have cloned a mice and British Scientists Dr. Patrick Steptoe and Robert Edwards covering substantial ground in their IVF research. Although Karl Illmensee was unable to prove his claims, rendering his experiment dubious in the scientific circles, the IVF research yielded its first successful test-tube baby in 1978. Conceived outside the female reproductive body, the accomplishment captured a massive media attention, leaving public confounded and conflicted on where the moral, scientific, genetic, biological, natural boundaries are drawn in the age of bio-technology. It has given rise to the public realization

that these new technologies will eventually result in subversion and re-configuration of social values and the notions of pregnancy, motherhood, childbirth, marriage, biological kinship webs, romantic relationships, opening a platform of speculation and conflict for the ethicists, scientists, sociologists, philosophers, feminists and various experts. These developments have tapped into the public fears and permeated into collective anxieties on mad male scientists assuming the role of God, losing human uniqueness, becoming a merchandise in a mass production line, disappearance of our socio-cultural values thus turning us into machine/ human hybrids, commodification of the human body and the threat of encroachment on our individual identity. These concerns have found echo in literature as well when cloning became a familiar trope in science fiction genre, projecting the public imagination and possible implications of the technology on everyday life of ordinary people in the 1970s. Central to the debate are David Shear's Cloning (1972), Nancy Freedman's *Joshua Son of None* (1973), Naomi Mitchison's *Solution Three* (1975), Pamela Sargent's *Cloned Lives* (1976), Kate Wilhelm's *Where Late the Sweet Birds Sang* (1976), Ira Levin's *The Boys from Brazil* (1976). These clone narratives explore the subject in a clash with the concurrent socio-cultural values and structures of their time, engaging with the possibility of cloning in mostly dystopian alternative settings. In 1978, the same year the first IVF baby was born, David Rorvick, a reporter on reproductive technologies published *In His Image: The Cloning of a Man* which immediately became a media sensation due to the author's claims that the story was not fictional but a factual account of what he had witnessed. In the narrative, a millionaire who wants to have a clone son, employs a scientist to carry out the experimentations in a third world country where they will face no legal restrictions or moral repercussions. The local women who have been rendered test subjects during the rudimentary stages of the study, due to the decision of the scientist to bypass test animals, are administered medical hormones to enhance their ovulation and the number of eggs they produce, which are integral to the study. The book is important to the feminist reactions to

the reproductive technologies in terms of affirming the techno-pessimist feminists' concerns that the male monopoly in the scientific arena will render women uninformed, passive targets of an unprecedented scientific experimentation whose effects on women's reproductive health are not extensively studied. Although the book was later discredited and the scientist whose name was implicated filed a legal suit against the author, Rorvick himself have held onto his claim that the book was not fictitious (Corea 40-41). The representation of the women's position in the bio-technological research in the book can be read as analogous to the status of Joanna May in Weldon's vision. The circumstances under which Joanna May is cloned, which will be analysed in detail later in this chapter, echo the use of women's reproductive bodies as the source of raw material for scientific inquiry as represented in Rovrick's narrative. Given the publicity of Rovrick's book upon the publication and controversy over the originality of its contents, we can cite it as a part of the literature that might have inspired Weldon in her engagement with the cloning trope in relation to feminist concerns.

All these narratives on cloning and other forms of ectogenetic birth have set the tone of the public reaction when the cloning research have followed its logical next step into the cloning of mammals in 1996. The boundaries separating science fiction from actual science came crashing down when the reality and fiction became too intertwined to distinguish with the announcement in 1997 that Dr. Ian Wilmut and Keith Campbell at the Roslin Institute in Edinburgh had been able to clone a lamb through transferring the nucleus of an adult somatic cell of a sheep into an enucleated egg. The result was the world's most famous mammal, Dolly the Sheep. The story has immediately transmuted public outcry and anxieties that have been contained in the pages of science fiction narratives up to that point to the newspaper headlines. Weldon herself as a writer who has analyzed the issue of cloning in its complex repercussions, having written *The Cloning of Joanna May* in 1989, interviewed Dr. Ian Wilmut in the summer

of 1997 and wrote an article titled “But Has Dolly Got a Soul?”, commenting on the chaotic atmosphere in the aftermath of the breakout of Dolly’s story. As she states:

> Dolly was born after two-hundred-and-eighty tries. The world’s press turns up at the door. China on the phone, France, Australia. Film offers. Book deals. Sheep are mammals: humans are mammals. You could make people in the laboratories. Fortunes could be made. Hysteria mounts. Visions of genetic monstrosities; soulless hordes; a thousand Mozarts, a million Hitlers. (211)

Here Weldon aptly underlines the radical, almost dystopian consequences of cloning in the collective imagination if the technology becomes viable and available for wider application. The global scale suspicion and discontent brought about by the sudden intrusion of the cloning technology into the public life have moved the world leaders and institutions to take precautions to placate the public fury. President Clinton enforced a five-year ban on the funds allocated to the cloning research, emphasizing that cloning is "morally unacceptable to our society" and against “the God-given individuality each human possesses” (Morris). On 15 January 1998, European Parliament passed a resolution on human cloning that renders the act “contrary to respect for the person and a grave violation of fundamental human rights which cannot under any circumstance be justified or accepted” (“Resolution on Human Cloning”). Ever since, several working groups have been assigned to investigate the need to ban human cloning but due to “the lack of clarity in international law” (Langlois), the issue remains controversial.

Taking into account the above chronicled history of the disputes and discussions pervading the issue of human reproductive cloning as a form of reproductive technology, it can be seen that the image of the clone has never carried a fixed meaning or constancy but rather has remained a contested figure to which various ideologies, approaches and assumptions have been inscribed by countless public players. In her article entitled “Conceiving Difference”, Susan Squire states that “the very fact that the image has such cultural centrality suggests that

it functions not as a settled understanding of the self in creation, but as an unsettling source of questions about the new identity brought about by that technologized creation" (97). As expressed in the quote, the figure of the clone is intrinsic to our identity politics in which the notions of what defines us as human, what constitutes our social values and constructs, who we are without our singularity are questioned and rewritten, a subject given specific focus in Weldon's narrative.

Published before the scientific breakthrough of the cloning of Dolly took place, *The Cloning of Joanna May* deals with the implications of the reproductive technologies on the female body and the question of identity ahead of its time, linking the destructive potential of the nuclear science on ecological systems to the abusive application of reproductive technology by the same patriarchal, capitalist institutions. Weldon's engagement with the complexities and intricacies of the issue is presented through the story of Joanna May, a sixty-year-old, childless divorcee. The novel opens at a specific historical moment where the Chernobyl nuclear disaster has just taken place, setting the natural world out of its course and balance. The ensuing continental panic, fear and uncertainty over the radioactive fallout echoes the chaos and disorder in of Joanna May's life, who recently got a divorce from Carl May, the tycoon of industry, director of Britnuc Power Station and strategically head of various companies and institutions whose field of expertise ranging from art, divination to science and medical technology. Upon an illicit love affair with Isaac King, the charming, spiritual Egyptologist of Carl May's art gallery which has resulted in Isaac's murder by Carl May and their subsequent divorce, Joanna May, with the alimony from Carl May, lives a financially comfortable but emotionally empty life in King's Tower marooned on an island surrounded by Thames river that might have been meaningfully chosen by Carl May to evoke the feeling of exile, desperation and loneliness. Joanna May, cast out and left alive only to "suffer from the loss of me [Carl May]" (38) is in a state of loss and identity crisis herself, trying to figure out how to

define herself in the absence of Carl May, children, a job or a field of interest. Her crisis of identity intensifies when Carl May, in a fit of rage over Joanna's confession that she has a new boyfriend, discloses the fact that he and Dr. Holly, a prominent man of science whose projects and research are funded by Carl May have cloned Joanna into four more versions of herself thirty years earlier during what she thought to be an abortion but which turns out to be another manipulation by Carl May since she was not actually pregnant and her symptoms were the result of a strong subconscious desire to mother, a title she had been denied by Carl May since the beginning of their marriage. Joanna May's confrontation with the fact that she has been robbed of her 'singularity' through an uninformed, non-consensual technological intervention to her body, her dissolution and re-construction of individual identity in the face of reproductive technologies, her newly found agency through the solidarity with her clones, Jane, Julie, Gina and Alice constitute the central thematic concerns of the novel.

Weldon's decision to set the narrative in the aftermath of the Chernobyl disaster in 1986, one of the largest-scale *man-made* disasters in history and the most devastating nuclear disaster to date, requires special focus to be granted within the scope of this chapter. The staging of the novel at the backdrop of a nuclear calamity is intrinsic to the representation of the potential destructive power of technology governed and employed by the institutions of capitalist patriarchy with the sole purpose of economic gains and accumulation of power manifest both in the destruction of ecological balance and in the invasive use of reproductive technologies to appropriate the female capacity for procreation.

In April 1986, faulty equipment and the violation of the safety protocols by the workers who power surged one of the reactors at the Chernobyl nuclear power plant caused a series of explosions inside the reactor, starting a chain of events that resulted in the nuclear core being exposed, leaking "up to 30 percent of Chernobyl's 190 metric tons of uranium" to the atmosphere (Blakemore). The secrecy, insufficient information provided by the Soviet Union,

indicating attempts to cover-up a global scale disaster drove uncertainties, public anxieties and fear home to European public. The shock and horror the British public went through by the vague news coming from Moscow reverberated in the British press in the early days following the incident. "Russia's Cloud of Death", "European Alarm", "Gigantic Reactor 'Kettle' that Became a Killer", "Nuclear Disaster-Radioactive Cloud Heads for Britain", "Red Nuke Disaster", "Atom Cloud Horror", "Meltdown Could Kill 10 000 in 10 Years", "Nuclear Paranoia" were among the titles, covering the news from Chernobyl, appeared in the prominent British newspapers such as *The Times*, *The Daily Telegraph*, *The Guardian*, *The Sun*, *The Daily Mirror*, *The Daily Express*, etc. (Herbert). These titles resonate with the widespread fear of radiation fallout experienced by the characters in Weldon's narrative exemplified by the descriptions of radiation as "death raining down from the skies all over the world" (152), "the invisible enemy, the silent murderer, that which, like age, creeps in the dark...flying through the air and causing death and decay wherever it fell" (27), "the unseen killer which now stalked Eastern Europe" (54). The threat of radiation infecting the body through the air, water, food renders the incident a technological nightmare, a sinister enemy that cannot be fought or stood against.

In her novel Weldon brings facts and fiction together to present a powerful dramatization of the shattering of the illusion of professed mastery and control claimed by the male dominated scientific field and government institutions over the nuclear energy that hold the power to generate and destroy lives at the same time. This is emblematized in the novel by the lack of public trust in the government institutions and officials. The Department of Energy asks Carl May – "a popular yet authoritative figure" (299) from the commercial sector – to make a statement on the national TV since "official announcements had lost credibility in this particular area" (299) to answer the questions on the possible effects of the radiation fallout and to placate the public fears and anxieties that a similar accident might happen in Britnuc Power

Plant. During the statement, Carl May uses public illiteracy on nuclear science as "the public can't tell a roentgen from a rad" (299), to manipulate and distort the truth about the possible consequences of radiation exposure. He says: "It can't happen here. Our reactors are constructed on a different principle from theirs. Children may safely drink milk though sheep may no longer safely graze on the uplands'" (61). His ironic and aggressive attitude, a consequence of his hubris and over-confidence goes as far as to insult the public for being "ignorant and hysterical and impossible" (153). Despite the fact that Carl May's purpose in trying to mitigate public concerns is to protect his capitalist interests that rely on "the future of the nuclear industry" (151), he is unable to restrain himself even in the national TV, infantilizing the British public thus exposing his egoistical, violent, disrespectful nature. We can read this scene as Weldon's fictional projection and criticism of the flawed inspection mechanisms in the capitalist market that results in accumulation of too much power in individuals and institutions that are liable to failure and flaws but lack the capacity and maturity to take responsibility and accept fault. Through the juxtaposition of the oppression and disaster let loose both on the natural world by nuclear science technology and on the female body through reproductive technologies under the yoke of same patriarchal capitalist science emblematized by the misogynist, egocentric Carl May who is both the Director of Britnuc and the Martins Pharmaceuticals that fund Dr. Holly's projects, Weldon offers a site for ecofeminist analysis of her narrative. The nexus between natural world and technology as well as the female body as represented in the novel overlaps with the basic principles of ecofeminist thought.

As examined in Chapter I, ecofeminist thought emerged out of a feminist activism that rose against proliferation of nuclear power, militarism and hierarchical power relations between the Western industry and exploited third world countries as well as between the sexes in the mid-1970s (Gaard 28). As a critical theory formed during the Second Wave Feminism, the ecofeminist approach to the relationship between women, technology and nature mostly reflects

the dualistic view of the man/technology, woman/nature association. At the core of the ecofeminist approach lies the idea that domination and exploitation of both women and nature is rooted in the capitalist patriarchy, a case in point that submits Weldon's narrative to ecofeminist investigations. As historical, economic and cultural studies have shown that ecological destruction and women's oppression have been too interlocked to be studied in separate contexts, ecofeminists have joined together to fight the male capitalist domination over women and nature at once. Women's ability to gestate and give birth has been considered by ecofeminists as the foundation stone upon which woman's connection to and association with nature is built. Kate Soper in her article "Naturalized Woman, Feminized Nature" argues that the conflation of the femininity with "naturality" lies in the assumption that due to her role in reproduction in terms of childbirth and the consequent nursing and rearing responsibilities, women are more "corporeal" than men and thus considered closer to nature as a life giving and nurturing force (139). In a similar vein, she adds that "coding nature as feminine" (139) stems from both reproductive capacity of the female body and the perception of the female body "as spatial territory, as the land of the earth which is tamed and tilled in agriculture (and with this we may associate a tendency to feminize nature viewed simply as landscape– trees, woodland, hills, rivers, streams, etc. are frequently personalized as female or figures in similes comparing them to parts of the female body)" (141). In light of this, nature in a male supremacist culture functions to represent both a nurturing, creative force and a passive, fertile land waiting for penetration and domination. This view is represented in the novel through phallic symbols employed to describe the penetrative power of the man-made architectural structures that are invading and dominating the feminized landscape. The "tower block" where Carl May manages his business operations "had been designed to dominate the city skyscape"(98), "all around arose the thrusting towers of usurping empires—leaner, taller, glassier but doomed to crumble and collapse built on…not the rock of industry, the cold power of the atom (98). He is on the

board of directors of Riverside Gardens and Developments which, plans "to erect high-price housing for those young professionals who wanted a river view and easy access to the City, and who were prepared to pay for it" (21). Here natural world is rendered a passive subject to be dominated and exploited by the capitalist ventures of Carl May who conflates woman and nature in a partnership that is perceived as destructive and irrational, ultimately in need of male intervention in the form of masculine rational science and technology. He explains his designs to master the natural world as follows:

> I would perfect nature's universe, because nature is blind, and obsessive, and absurd ... and has no judgement, only insists on our survival, somehow, any old how: nature is only chance, not good or bad. All I want is the any old how properly under control, directed, working better: I, man, want to teach nature a thing or two, in particular the difference between good and bad; for who else is there to do it? But how can I, because woman makes man bad, I know it, I feel it. (144-145)

As evident in the quote, we can extrapolate on Carl May's association of woman and nature in "the feminized nature and naturalized woman" discourse. Carl May as the representation of the masculine, the male sphere "I, man" feels entitled to tame and dominate nature, a phenomenon perceived as lacking the ability to function correctly without male interference and guidance to show "the difference between good and bad". The natural world and its mechanisms that cannot always be explained or work in line with the scientific method registers as chaotic, irrational, haphazard, hysterical and "absurd" to Carl May, the same way women's desires and needs are perceived to be a puzzle that cannot be solved thus rendered unpredictable and innately deceitful "it was just in her female nature, buried deep, but there it was. The need to betray, to spoil, to turn what is good bad. The bitch goddess, at it again" (39). The lack of reason and order thought to be inherent in both nature and women's nature is to be brought under male control, regulation and domination. Through his woman/nature, male/science conflation, Carl

May emphasizes the superiority of the masculine to the feminine and the feminized, thus devaluing women in a discourse that relegates woman/man difference to good and bad.

Although association of woman and nature is inherent in the ecofeminist thought, ecofeminists renounce the view that lends superiority to man/technology identification as represented by Carl May's view on women and men relationships based on hierarchical power relations. By contrast, ecofeminist thinkers underline an almost divine experience of women connecting to nature through childbirth and motherhood. However, this almost divine experience that privileges woman over man in relation to nature reflects the traditionally-held notions on how a woman should be, carrying with it an assumption that there is a pre-determined essence to every woman which should be embraced with pride. This essentialist tendency of ecofeminism has drawn heavy criticism for relegating women to their biology and reifying the binary idea of gender identities as summarized by Rebecca Evans in her article "James Tiptree Jr.: Rereading Essentialism and Ecofeminism in the 1970s":

> Since its emergence in the 1970s, feminist scholars have often criticized ecofeminism for its dangerous essentialisms. Many of those well-founded critiques dismantled the problematic adoption of a second wave feminist perspective … took issue with the reframing of feminized traits such as nurturing and protectiveness as environmentally positive, suggesting that this subversion actually reproduced the dualistic logics that it sought to unmake insofar as it refused to meaningfully interrogate the category of 'nature'. (223)

Upholding a set of generalized characteristics about the nature of woman, ecofeminism tends to fall prey to an essentialist notion that women's reproductive capacity makes her a part of nature while men, left outside the natural process due to their lack of reproductive power, are situated in the scientific field. Although *The Cloning of Joanna May* offers the reader a fertile ground for ecofeminist investigations through providing a fictional projection of the

ecofeminism's basic premise that the roots of exploitation, domination and subjugation of both women and nature can be traced back to capitalist patriarchy embodied by Carl May who devalues both woman and nature combined and appropriates the power of science for himself as a way to revise and fix nature which is perceived as "accident and not design, never perfectible left to itself" (142), the narrative is carefully constructed not to fall into the trap of ecofeminist essentialism which underscores the perceived intimate connection between nature and women due to the reproductive functions of the female body, an argument which has drawn heavy criticism among feminists. Weldon herself elucidates her suspicions on the notion that being associated with nature empowers women. In her essay "The Changing Face of Fiction", she contends as follows:

> Feminists began to take up the Mother Goddess, earth magic; fecundity became an okay word. To be part of nature, nearer to nature, to hear the rhythms of the seasons and so forth. I remain pretty sceptical about this part of it. I have always seen "nature" as inimical to women; nature kills you. Left to her own instinctive devices, a woman has babies, more and more babies, and is dead by thirty. And as Marie Stopes pointed out in a world without medicine, our way of supervising nature with every pregnancy your chances of dying from it double. (196)

Here, Weldon does not approach nature as a sacred power present within every woman by dint of their reproductive ability, a view that inscribes meanings to what a woman is or how she should be but rather, she takes a more realistic approach towards nature, demystified and stripped of its ecofeminist glorification. She affirms that nature does not move towards a purpose to protect anybody's wellbeing be it female or male but it only equips the sexes with the necessary qualifications to reproduce as many times as possible. These differences in itself do not necessitate a hierarchical structure but should be viewed as complementary instead since without science and technology to help women during the reproductive processes women would

be in danger. We might read this as Weldon's criticism of the polarization of science and nature into different categories through their misled association with the sexes. In another essay titled "Of Birth and Fiction", Weldon comments on her position specifically on reproductive technologies dramatized in *The Cloning of Joanna May* as follows:

> I put my trust in Joanna May and a more clinical approach. I am not automatically against reproductive technology: I am not convinced that having babies by chance, or at any rate by sexual selection left in the hands of overemotional, rash, and unwise individuals, is the best possible way forward. (205)

As made explicit in the quote, although Weldon adopts a liberal approach towards reproductive technologies in which she holds that these technologies in and of themselves are not inherently good or bad but the social agents and institutions that fund the research, shape the possible uses of these technologies, decide on the areas in which they will be employed determine the pro- or anti-woman inscriptions of these technologies, she acknowledges the dangers and anxieties intrinsic to the techno-pessimist feminists' and ecofeminists' classification of the technologies as inherently detrimental to women by foregrounding the oppressive use of reproductive technologies by "overemotional, rash, and unwise" businessmen and scientists within the capitalist patriarchal medical establishment embodied by Carl May and Dr. Holly in *The Cloning of Joanna May.*

Weldon employs human reproductive cloning as a form of reproductive technologies in the novel to investigate the implications of these technological processes on the female body and social experience when they are employed without the consent and knowledge of the female subject. When Joanna is thirty years of age, her body manifests signs of pregnancy, a condition generated by Joanna May's wilful subconscious and diagnosed by Dr. Holly of the Bulstrode Clinic as a hysterical pregnancy as he affirms; "There's no baby there, only air and wind" (44). Dr. Holly suggests "love and kisses" to remedy the situation or "a mock abortion, a ceremony

of death" (44) to convince Joanna May's both conscious and subconscious mind and body to give up on the illusions of pregnancy. Carl May, being a manipulative man with the necessary means to employ science and technology for his self-serving purposes, chooses to medicalize the situation instead of following Dr. Holly's suggestion to show love and attention to Joanna. He stages a fake abortion and anaesthetizes her. This scene can be read as Weldon's criticism of the male dominated medical establishment that pathologizes the female body and treats it a scientific subject to be operated on unnecessarily. While Joanna is unconscious believing she is "having my husband's abortion, not his child" (241), Carl May, through the scientific expertise of Dr. Holly, prepares a revenge plan for Joanna's disobedient subconscious. He proudly explains his atrocities to his young girlfriend Bethany, stating:

> While she was opened up page we took away a nice ripe egg; whisked it down to the lab: shook it up and irritated it in amniotic fluid till the nucleus split, and split again, and then there were four. Holly thought we could have got it to eight, but I said no. Growth begins so quickly: there wasn't time. A truly vigorous egg, that one. We kept the embryos in culture for four whole weeks, had four nice healthy waiting wombs at hand and on tap, for implantation. All four took like a dream: there they grew until they popped into the world, alive and kicking and well. Four nice assorted ladies, desperate for babies, got four very pretty little girls: little Joanna clones. (45-46)

As indicated in the quote, Joanna being under anaesthesia is not consulted in Carl May's mechanizations to create "little Joanna clones". Unconsented and uninformed, the act brings to the fore the questions of legitimacy, legality and ethical transgressions of the invasive practices of the patriarchal reproductive science in the hands of profit-driven, misogynist, egocentric businessman and scientists as Joanna May declares later in the novel "under cover of performing an illegal abortion, you stole what was rightfully mine, one of my eggs, you [Dr. Holly] and my husband between you" (255). In this context, Joanna's body is objectified and

rendered a commodity to be manipulated by scientific expertise, fragmented into its reproductive parts and robbed of its integrity. Joanna registers the act of cloning as theft both of her "singularity" in the psychological sense and of her egg as a material possession of her body. This unconsented invasion into the female body under the pretence of reproductive health is problematized by Genoveffa Corea in her famous essay "Egg Snatchers", questioning the legality and morality of the scientists' acquisition of women's eggs for their research on reproduction, as she contends:

> I wondered: when the women consented to the surgery, did they know that as they lay anesthetized on the table, a man would be standing there waiting to collect their eggs in a glass pot? Did they know that, in at least one incident in Cambridge, he would add his sperm to their eggs in an attempt at fertilization in a dish. Did they ever dream of eggs-their own eggs- fertilized by the faceless man in a white laboratory coat?" (41)

This scene vividly imagined by Corea is eerily reminiscent of Weldon's fictional dramatization of Joanna's diminished agency and autonomy over her reproductive body. The figure in the laboratory coat can be read as the representation of both Dr. Holly and Carl May combined, one providing the scientific know-how and the other financial capacity to carry out the cloning without Joanna's knowledge. Carl May's act of multiplying Joanna May into four more versions is a twisted revenge plan for the perceived transgressions committed by Joanna May in her subconscious desire to become a mother. Incognizant of the fact that Carl May has had a vasectomy at the age of eighteen to "be the end of the line: that particular experiment of nature's" (45), Joanna is forced to accept Carl May's abrupt and last minute imposition that he does not want any children, out of love and fear of humiliation to cancel the wedding. Registered as an act of betrayal and a source of disillusionment, Joanna's hysterical pregnancy drives Carl into a paranoid suspicion of not being loved unconditionally and of losing his total control over Joanna. He explains; "I took that phantom pregnancy of hers badly, an imagined

one seemed to me worse than the real thing; let her conscious mind be loyal and loving, in her unconscious, in the depths of her being, Joanna May betrayed me, went against me" (44). Joanna's hysterical pregnancy emblematizes the untamed, uncontrollable maternal body whose desire and capacity to procreate defies physical boundaries. It bends and moulds into the shape of a gestating female body through a make-believe. Joanna's agency over her maternal body, her ability to influence her physicality even through a subconscious desire is brought in stark contrast with her diminished agency and autonomy over her reproductive processes and body inside the operating rooms of the patriarchal science. Joanna's body rebels against the emotional manipulation and abuse, suggesting that the maternal body, unlike Joanna's meek acceptance of Carl May's dominant position in the relationship, cannot be subdued or brought under control by patriarchal conditioning. The subconscious rebellion of the female procreative power is perceived by Carl May as a menace to his masculine potency, a disturbance that is immediately addressed by Carl May through usurpation of Joanna's procreative power. Her desire to reproduce, to multiply is actualized by Carl May but staged in an environment that's far from what Joanna's bodily processes are craving for. Taking the reproduction outside the female body is portrayed as a patriarchal revenge on the regenerative powers of the female embodiment that will not be subdued. He employs her reproductive urges against Joanna by producing the children she longs for but never informing her of their existence. Giving and taking in one act is a punishment for disobedience that is meant to diminish Joanna's subjectivity while indulging Carl May's God complex and male egoism.

Carl May's authoritative, abusive, exploitative behaviour and his constant need to bring everything under his control and domination cannot be examined independent of his childhood traumas. The reader learns early on in the novel that Carl May has been abused, neglected, battered, physically and emotionally traumatized as a child in the hands of a suicidal mother who treats him like an animal by tying him up in a dog kennel, depriving him of motherly love,

attention, as well as basic needs for survival such as food or water. Carl May's problematic past and unhealthy relationship with his mother teaches him to be aggressively assertive, and self-reliant to be able to survive, a characteristic that brings him success in academic and business world but leaving him emotionally impoverished, in need of constant attention, restless and distrustful towards others. His refusal to accept his fate and need to exert total control is reminiscent of his days chained in the kennel where he had to teach himself how to read from "scraps of newsprint" he acquired by training the street dogs to fetch for him. This constant need for control which helped him rise above his circumstances and become a success at an early age proves to be a handicap for maintaining healthy relationships in his adult life, which manifest especially in his relationship with his wife Joanna. His obsessive need for domination transforms into a sense of entitlement and egoism as can be exemplified by his declaration "What can happen next that I don't know about? What can surprise a man like me? I win. I always win. I need to win" (47). Carl May's past that is intrinsically connected to the focal concerns examined in the novel such as abusive use of reproductive technologies, oppression of the woman and nature, and identity crisis brought about by the human reproductive cloning, is also irrevocably central to Joanna's unwavering love and attachment for Carl May. Joanna, reading about the story of the abused child in the newspapers at the age of ten, is deeply moved and grieved by the injustices and misery he has been subjected to at that age and she ingrains Carl May in her mind, waiting for the chance that "one day she would make it all up to him" (34). The story of the child kept in the kennel becomes a symbol for the unfairness and ruthlessness of the world that Joanna cannot understand but is determined to fix, therefore it is not surprising that when she actually comes face to face with Carl May years later, she immediately falls in love with him. Joanna, being fixated on the image of the boy whose life represented a world of chaos and imbalance, recognizes in him a purpose for herself, to "make the past up to him" (35). In contrast, Carl May's motivations to marry Joanna are quite

superficial and foretelling of his subsequent manipulative behaviour as explained by the narrator: “He needed a wife to look after him and he needed one now. He did not need children, but he did not tell her that, not at once” (34).

One way to read Carl May’s misogynistic and exploitive attitude towards women is to position it in conjecture with his dysfunctional bond with his mother. The mother-child relationship through the formative years is perceived by Carl May as too damaging and full of resentment to allow him to form any healthy connections, built on mutual love and respect with any woman. Although it would be reductionist to absolve Carl May of the responsibility of his consciously abusive and exploitative behaviour by linking it to his mothers’ inability to create ideal conditions for a healthy childhood, it is made explicit in the narrative that Carl May sets his relationship with his mother as the basis upon which his adult emotional relationships are built and perceives these emotional bonds as power relations that need to reify his power over and possession of the female body which he registers as a source of betrayal, chaos, disorder, indifference, misery and threat to his hard-won potency.

Carl’s act of cloning of Joanna is another representation of his displaced desire to attain his mother’s love. Recognized as an act of subconscious disobedience, Joanna’s hysterical pregnancy leaves Carl May distrustful and in fear of losing Joanna’s unconditional love, so he attempts to remedy the situation by creating four more versions of her, believing as the narrator states:

> They’d love him, as Joanna had. Of course they would: they were Joanna. When he multiplied her he had not so much tried to multiply perfection – that was a tale for Holly – he had done it to multiply her love for him, Joanna May’s love for Carl May, multiply it fourfold: to make up for what he’d never had: Carl May, the bitch’s son. (316)

As evident in the quote, Carl's internal struggle to ensure the love and attention from the woman in his life as a replacement of the maternal care he never had brings him to extremes when he deploys the reproductive technologies as an extension of his power and determination to guarantee the perpetuation of what he lacks. The act of cloning made possible by dint of Carl May's obsession to possess and own can be read in line with post-modernist society's obsessive consumerist tendencies to ensure that object of desire is never of short supply. Multiplying someone fourfold with the purpose of multiplying her/his love is the ultimate capitalist venture that extends to the personal and biological sphere, breaching and disintegrating somebody's identity for the purpose of storing the genetic code of the individual in an endless loop of industrial production.

The French philosopher Jean Baudrillard whose intellectual work is rife with the negative images of the cultural and biological cloning associates the image of the clone with contemporary society's obsession with the copies, imitations and simulations. According to Baudrillard, the same way as a work of art loses its "aura" in the process of mechanical duplication, the individuality and authenticity of the cloned person is eradicated through the act of multiplication. The genetic code is turned into a commodity of the capitalist industry and the original cannot be separated from its replicas, giving rise to the annihilation of the human singularity and individuality in the process. In his book, *The Transparency of Evil: Essays on Extreme Phenomena*, Baudrillard contends that "This is our clone-ideal today: a subject purged of the other, deprived of its divided character and doomed to self-metastasis, to pure repetition. No longer the hell of other people, but the hell of the Same" (122). As can be extrapolated from the quote, the subject is objectified and commoditized as a merchandise in the mass production mechanism, negating the subject's originality and uniqueness. The more copies of a subject are produced in the industrial age, the less of the subject remains. This reasoning resonates with Carl May's twisted plan to take revenge from Joanna through the act of cloning as he declares:

> I proved then you were nothing so particular after all, and that, to be frank, is when I lost interest in you. I proved it by making more of you, and the more I made of you the less of you there was, so it hardly mattered when you betrayed me, because how can what does not exist betray. (140)

Here, Weldon sheds light on another avenue of potential abusive application of the human reproductive cloning perceived as a capitalist tool of objectification of the human subject and relegation of the identity to its genetic code in an industrialized mechanization. Differing from Baudrillard's view which tends to foreground the genetic determinism regarding cloning wherein the clones and replicas are denied their individual identity and human subjectivity, reduced to functioning as the carbon copies of their original, in Weldon's narrative the identity crisis and psychological confusion both on the part of the clones and the cloned individual are rendered explicit and given specific focus, which will be discussed in detail later in this chapter.

Carl May's application of human reproductive cloning as a form of reproductive technologies to objectify and possess the female body can be read as a repressed desire to punish his mother. His anger, directed at Joanna for perceived violation of the pact they have made years ago, finds its origins in his hatred for the mother. As Robyn Alexander in her essay titled "The Cloning of Joanna May: Reproductive Technologies, Motherhood, Identity" contends, "The exaggerated power of Carl May's mother (who is never given a name in the novel, which adds to the reader's sense of her as a mythical or allegorical figure) renders her the model of the castrating feminine which masculinity so fears and reviles" (49). As aptly expressed in the quote, the female body is recognized by Carl May as the source of chaos, disorder and threat to his masculinity, reminding him of his neglected, chained-up, almost starved, victimized state in the kennel. The assumption that women are unstable, unpredictable, devoid of reason, running on their emotions, which is an essentialist presumption that also finds its cultural

confirmation in the woman and nature conflation is used as an excuse not to inform Joanna of the clones produced from her stolen egg. The narrator explains:

> Joanna May, the calm, normal, healthy, beautiful and apparently well-balanced woman whom they had, out of love, respect and admiration so successfully reproduced, was still a woman, and therefore liable to extreme, hysterical and unhelpful reaction: she was a creature of the emotions, rather than reason. That was the female lot. (122)

Here, Carl May's generalization and stereotyping of female characteristics serves to his advantage as he distances himself from the responsibility to confront Joanna for the transgressive act of cloning. The unpredictability, chaos, and nonchalance perceived to be inherent both in natural world and female nature is provided as the justification by Carl May and Dr. Holly who, behind the façade of correcting this, suit their self-interests through the scientific method to interfere and custom-make both the female body and nature . Both Dr. Holly and Carl May feel that "; that an evolutionary process which caused so much grief could surely be improved upon by man: genetic engineering would hardly add to the sum of human misery, … and might just possibly make matters a good deal better" with "May providing money and inspiration and Dr Holly surgical deftness and experience (116). Here bringing together the male scientific expertise and the necessary capital culminates in a fantasy of self-endowed omnipotence and invincibility that entitles Carl May to undertake the responsibility to give nature guidance and direction as he valiantly declares "Do you know who I am? I am master of mortality" (141). Mad scientist stealing role from God is a common trope encountered in science fiction narratives, however, in *The Cloning of Joanna May*, the scientist needs the capital of a mad tycoon of industry with an unquenchable hunger for altering and meddling with the natural processes to prove his masculine power. The analogy between Carl May and the act of creation is brought to the fore with the phrases employed to underline the god-like power Carl May exercises through his business ventures, as the narrator describes:

> ‘Let there be buildings!’ Carl May had only to cry, pointing to an arid landscape, and lo, so there would be... ‘Let there be beauty!’ Carl May had only to murmur, he whose stepfather had battered and abused him, ... Let there be light!’ Carl May ordained, and nuclear power stations sprung up at his command and pumped their power into the National Grid. (25)

Here we can see the references to bible quotations which show Carl May’s appropriation of the divine power and authority to create and destroy life. The biblical act of the creation of the Earth here is compared to the act of erecting buildings and the building of the nuclear energy industry that holds the potential destructive and generative power. For someone like Carl May who has found the chance and strength to rise above his circumstances in life and self-made himself, it is easy to imagine that life, identity, fortune, power can be made and re-made by the individual agency with prowess and right decisions. He does not shy away from putting all his power to defy and modify nature to mould it into a version of his preference. This god-complex accompanied by his jealousy and obsession with control manifests as criminal acts of killing and creation of life by illegal cloning. His tendency to violence and abuse is brought to surface even through a simple demonstration of love from Joanna May towards her dogs. Demanding Joanna’s undistracted, unconditional, utmost love and attention, Carl May is driven into a fit of jealousy by Joanna’s love for her dogs that ends violently. The murder of the dogs is foretelling of the same fate awaiting Isaac King, the Egyptologist, the man with whom Joanna has an illicit affair.

When she is over fifty years old, Joanna meets Isaac King working at Carl May’s Gallery. Soon their friendship evolves into an affair, only to end in Isaac’s death upon being discovered by Carl May (38). Portrayed in stark contrast to Carl May’s materialistic, egoistical, self-absorbed nature, Isaac King is the embodiment of the metaphysical side of the world and spiritualism evident in his interest in Tarot reading. The inclusion of Tarot cards in the narrative

is highly suggestive of Weldon's deliberate juxtaposition of spiritualism with symbolism rooted in nature and abusive science as represented by Carl May and Doctor Holly. Carl May, influenced by Joanna's newly-acquired interest in symbolism launches a "Divination Department" located inside his headquarters, which denotes to the lengths Carl May will go to indulge his obsession to bring everything under control through scientific method. Turning the power of mysticism into a divination department that sends estimations every week just like weekly weather forecast reports can be read as a shallow attempt to appropriate the power of the spiritual through the institutionalization and regulation of the metaphysical experience.

Weldon provides a parody of the consequences when self-entitled and privileged men such as Carl May and Dr. Holly who suffers "from the gigantism of the head" (308) assumes the god-like qualities and appropriate divine power. Through the act of asexual procreation in the laboratory, God is made redundant and forced to leave his place as the creator of life, as Joanna describes:

> God the Holy Ghost flew off the day Dr Holly of the Bulstrode Clinic, back in the fifties, took one of my ripe eggs out and warmed it, and jiggled it, and irritated it in an amniotic brew until the nucleus split, and split again, and split again, and then started growing, each with matching chromosomes, with identical DNA…for four more individuals, and only one soul between them…. that's when the Holy Ghost flew off, muttering, 'Christ, where is this going to end?' … there's no bringing him back; it's up to man to step in and take over. (201)

Here Weldon gives an account of technologically induced, man-made creation of life. The patriarchal scientific field extending its claws and forceps into the female womb is portrayed as destabilizing the notion that God is the ultimate bringer of death and life on Earth. Men with their professed mastery over science and technology assume the responsibilities of a creator in reproduction and interfering with the natural processes both of the environment and of the

female body. Fay Weldon, in her essay, "Of Birth and Fiction" comments on the way she has projected the scientific momentum of her time into the narrative. She affirms by saying, "*In The Cloning of Joanna May* I take birth away from women, and hand it over to men: as they are of course busy doing for themselves in the real world" (391). Here she acknowledges that the medical profession under the patriarchal value system is re-appropriating female reproductive capacity, a statement confirmed by Dr. Richard Levine, an artificial inseminator as follows: "That's what I do: make babies" (qtd. in Corea 45).

According to Karen Horney and Melanie Klein, patriarchal obsession to take over reproduction from women through instruments of technology stems from men's womb envy, a psychoanalytic concept that can be explained as male jealousy over the reproductive capacity of the female body due to their limited contribution to the process of procreation. Since men's engagement with the reproductive activity ends at the sexual act and they have been cut out of the act of reproduction, the developments in the reproductive sciences are seen as labor of male desire to compensate for their alienation from reproductive processes of women's body and to overcome this lack of control over the experience of creating new life (Ferreira 115-116). According to Eva Feder Kittay, men can respond to this envy of female domination in the reproductive realm in the forms of "forming ambitions in which he can outdo women in their productivity, accepting ideologies in which men play the 'really' important part in procreation and the family and, in general, fiercely adopting the stance of male superiority" (qtd. in Ferreira 131). These reactions resonate with Carl May's treatment of women and his attempts to circumvent women to assume their reproductive role. Having sterilized himself at the age of eighteen, he shuts himself off from the reproductive process altogether. The absence of this power is transformed and compensated with a desire for regeneration, procreation both in the form of nuclear energy and exerting control and supremacy over Joanna's reproductive body through reproductive technologies. Robyn Rowland in her essay titled "Reproductive

Technologies: The Final Solution to the Woman Question?" affirms the existence of a male envy of the functions and activities of the female womb in the historical process, stating:

> Men's myths have continuously expressed their fear, awe and envy of it (reproductive capacity) and they have repeatedly tried to control it. They renounced the midwives and made a profession out of studying women's bodies; they have controlled and regulated our choice with respect to our bodies, controlling contraception, controlling abortion. Now, with the possibilities offered by technology they are storming the last bastion and taking control of conception, foetal development and birth. (363)

Here, Rowland conflates the pathologization /medicalization of the reproductive functions of the female body with the male desire to scrutinize, monitor, regulate and control it to underline the systematic alienation and disfranchisement of women from their bodily processes. Although Rowland's approach could be criticized for being reductive and misguided in the sense that the whole field of obstetrics is thought to be developed as a result of male desire to bring the female body under control and domination, we can draw parallels between Carl May's misuse of reproductive technologies and his obsession with the appropriation of the female procreative power as put forward by Rowland. Upon learning about Carl's new girlfriend Bethany, enraged Joanna pays a visit to Carl May to rebuke him for the injustices he has put her through, only to reveal the identity of her new gardener boyfriend Oliver. Carl May whose ego is wounded and authority shaken with this new information, unveils his 'monstrous' mechanizations as to what he can do with Joanna's genetic code through his scientific power in gratification of his god-complex, saying:

> I can make a thousand of you if I choose, fragment all living things and re-create them. I can splice a gene or two, can make you walk with a monkey's head or run on a bitch's legs or see through the eyes of a newt: I can entertain myself by making you whatever

I feel like, and as I feel like so shall I do. Whatever I choose from now on forever. (142)

As rendered explicit in the above excerpt, Carl May threatens to weaponize the reproductive technologies against Joanna as he openly declares that he will not eschew from transgressing any moral, physical boundaries to assert his superiority. The images of half animal/half human hybrids and monstrous creatures are employed to underline the trope of mad male scientist with a god-complex. Joanna's genetic code is commoditized, objectified and fetishized in the hands of an ultimate patriarch who has the financial, technological scientific and social power to manipulate it into any shape that suits and entertains him while dissolving Joanna's integrity.

Weldon exposes this objectification and the fetishization of the female body in a capitalist social matrix also by highlighting the act of cloning as a projection of Carl May's egoistical attempt to capture Joanna's youth and beauty. Carl May whose assumed masculine technological power is not confined to nature as a spatial territory but extends to the notion of time and natural process of aging as a part of nature as well, explains his god-like ability for immortalization as follows; "She was thirty. She was growing little hairlines round her eyes: so I gave time itself a kick in the teeth. It seemed a pity to let it all go to waste, when you could save it so easily" (46). As can be seen in the quote, apart from applying the technology of cloning as a revenge strategy for perceived betrayal and as a way to multiply Joanna's love for him fourfold, Carl May employs human reproductive cloning to capture the moment when Joanna looks physically perfect to him. Joanna's youth as a form of property Carl has exclusive rights to is copied and replicated in an attempt to immortalize it. Fetishization and commoditization of beauty and youth through abusive technological interference is a common thematic concern that *The Cloning of Joanna May* shares with the *Woman on the Edge of Time*.

In Piercy's dystopian projection of Gildina's society, the commoditization of the female body has reached its peak point where ownership of the human body and organ sale for a

survival, sex slavery are prevalent and normalized practices. Gildina goes through fifteen different cosmetic surgeries to be turned into an object of decoration and basically a sex slave in a socio-political system in which she only exists as her body, the only currency she can exchange to buy her survival. These technological invasions purposed to create an object of male fantasy render her natural body disproportionate and uncomfortable to inhabit. She is dehumanized into an object of gaze and a façade with no depth to it. In a similar vein, Joanna May's body is re-produced to replicate and perpetuate her beauty, showing that the essence of Joanna's existence, her value for Carl May can be captured through cloning her beauty and youth. The novel is replete with the instances of maltreatment of old aged women situated in a patriarchal value system that repeatedly debase women without youth, sexual appeal or past their ability to bear children as Carl May declares:

> You should have died twenty years ago, what use to the world are you? A woman without youth, without children, without interest, a woman without a husband; old women have husbands by the skin of their teeth and there is no skin left to your teeth, Joanna May, your yellow discoloured teeth. (138)
>
> ...
>
> You poor Joanna May, you female, the music stops for women long before it stops for men, and pitiful and degraded are the ones who dance on when the silence falls; your dance is over, Joanna May, you thoroughly useless lonely person, and mine is not, why don't you go away and die? (139)

Here, Carl May's point of view of the older women reflects the social devaluation and apathy for the women who cannot be sexualized since they do not fit into the image of male fantasy, and who are past their reproductive years. As evident from Carl May's repeated emphasis that Joanna should just rather die, a woman whose body cannot function as a sexualized object, a vessel for future generations, caregiver, nurturer of children, cook and cleaner, finds her options

to socially define herself very limited as there is hardly ever a category for a woman to associate with when those categories do not include her physicality in a patriarchal social organization. Jalna Halmer in her essay titled "A Womb of One's Own" sheds light on women's internalization of patriarchal value system that denies them their identity independent of their bodily service. She states that "Women frequently believed they must have children to be "real" and "full" women because they are not valued as an autonomous human being but only as servicers to men, primarily as wives and mothers" (445). Joanna May questions this patriarchal conditioning that woman's primary function in life is intrinsically related to her reproductive capacity as a service to society. She asks; "Is this the sum of woman then – to be the instrument of reproduction, a walking womb; the pulsing, gurgling, bloody redness inside the whole point of her being?" (263). Evocative of the description of the women relegated to their reproductive organs in Margaret Atwood's *The Handmaid's Tale*, Joanna's choice of word projects the anxieties of the second wave feminism on women's lack of individual identity and authenticity apart from their roles as mothers and wives. In this system, husband, children, beauty and youth as assets are the weights that are put against woman's worth in the social scale.

The consequences of the act of cloning as a way to appropriate the female reproductive power can be analysed in relation to the Chernobyl disaster. The same way as the patriarchal capitalist institutions of science and technology fail to control and manage safe mastery over the nuclear energy that they have created, Carl May and Dr Holly fail to take responsibility for the clones after their birth, never following up on their social, economic, psychological and most importantly their medical status. The link between the failure of managing the situation of the clones and the nuclear power disaster is rendered explicit by Bethany. Upon Carl's denial of the clones' existence, she states the following: "You did so do it. You just frightened yourself with what you'd done. You realized, and stopped, the way people do. You set things marching you couldn't control, so you just shut your eyes, and left it to the other people to clear up the

mess! Like the waste from your power plants" (148). Here, through Bethany, Weldon demonstrates that patriarchal science's so-called domination over nature and women is but an illusion created by the over-inflated ego of men with god-complex.

At this point, we can extrapolate on the intertextual dialogue between Carl May and the story of Frankenstein. In Carl May, we see a fusion of the victimized, unloved monster and the mad scientist as the creator of the monster. The neglected monster, cast out by his parent seeks to avenge himself through murder and violence the same way Carl May turns murderous and manipulative when Joanna cannot satisfy his need for absolute love and attention. Accumulating the power of science and technology Carl May becomes the embodiment of the abusive authority that has damaged him as a child in the first place. Carl May's transformation into Dr. Frankenstein from the creature of his scientific atrocities is emblematized through his treatment of the products of his scientific power. Equipped with the power of creation just life Dr. Frankenstein, Carl May refuses to take responsibility for his creations and leave them alone in the world to take their chances. Dr. Holly and Carl May act in a similar fashion for, as the narrator points out, "made no attempt to follow the fortunes of the children... Nor did they see any good reason to tell Joanna May herself what they had done" (122). Here Carl May's connection to Dr. Frankenstein is made clear with his indifferent and unamenable attitude. He becomes the parent whose lack of love and attention is portrayed as the root of his misery. In this context, the intertextual dialogue between the story of Frankenstein and Carl May can be drawn deeper. Just as Frankenstein's creature demands Dr. Frankenstein to create a perfect mate to keep him company and to give him love and attention, Carl May goes out of his way to create a perfect mate as explained by the narrator: "Carl May might create a perfect woman, one who looked, listened, understood and was faithful" (103). Bu appropriating female reproductive capacity with the help of Dr. Holly, Carl May manages to bring to life the "perfect woman", a desire of Frankenstein's creature that he has never actualized. However, Carl decides to trace

these women only when they are thirty years of age to choose among them the best suitable candidates to replace Joanna May. His tailor-made women is assumed to be loving and easily subdued as they are perceived as reflections of Joanna May. The parallel between the figure of Frankenstein and Carl May is drawn by Weldon in the narrative as the narrator states:

> The mad male cloning scientist crumbling into the dust of fantasy, Frankenstein dissolved, the monster only a dream, a fright, and the world return to normal. But no. It was real. It was true. It was the present – not the future. And it was all Carl May's fault. It was his fault. You're the devil, said Joanna May, you're the devil. (142)

Here, the myth of the mad-male scientist assuming God's creative power through the reproductive technologies embodied by Dr. Frankenstein and the monstrous creature wreaking havoc through murder and terror are all brought together in the figure of Carl May marked by his traumatic childhood and desire to master both woman and nature. By rendering Carl May the embodiment of both Dr. Frankenstein and his oppressed/oppressor creature, one might say that Weldon pays homage to one of the earliest texts of science fiction that deals with the disastrous consequences of male interference into the realm of reproduction.

Weldon's account of potential abuse and oppression that the female body is subjected to within a scientific medical establishment under male monopoly which employs invasive instruments of reproductive technology without educated decision of the female patient is not restricted to the experience of Joanna May. Other female characters in the narrative are portrayed as being alienated from their reproductive body and violated on various occasions in their life by the male agents of science and technology. The women patients' passive position during treatment of their reproductive issues is ridiculed by Carl May as he declares; "what passive creatures women are: they just lie there, trusting, and let the medical profession do what it wants" (45). Here, Carl May points to women who trust and follow the instructions of the medical agents as the source of problem by intentionally allowing the abuse and manipulation

of their body. The atrocities committed against women who need reproductive health treatment are voiced through different characters in the narrative. Annette, the surrogate mother of one of the clones, Gina underlines her incognizant and passive situation inside the operation room, saying: "Mind you, I was under anaesthetic at the time. Anything could have happened. Anything. A girlfriend of mine was raped under anaesthetic, but would anyone believe her? No" (278). As pointed out, the use of anaesthetics renders the possible violation of the female body go unnoticed and easier. Mrs. Love, who works at the library where Bulstrode Clinic used to be located shares her own experience of having an abortion similar to that of Joanna May and Annette as follows:

> Funny things had happened up the Bulstrode... They'd been fiddling around with women's eggs all that time ago, doing God knows what...She'd had an abortion there herself: she often wondered what they did with the poor dead foetus – and if it was dead. How could a woman know? They knocked you unconscious and did what they wanted: you couldn't object; what you were doing was wrong, illegal. (281-82)

Weldon's projection of the accounts of women who are rendered passive receivers of the abusive and invasive application of the reproductive technologies and unaware of the possible repercussions on the medical or social level can be read in intertextual dialogue with Piercy's *Woman on the Edge of Time*. Piercy's dramatization of the abusive interference of the medical profession into women's reproductive bodies is a powerful statement that discloses the potential destructive power the medical agents might yield upon women in the name of reproductive health treatment. The protagonist of Piercy's *Woman on the Edge of Time,* Connie Ramos herself undergoes an involuntary and unconsented sterilization upon being admitted to the hospital due to a domestic violence incident she has been subjected to while pregnant. Piercy underlines that the operation has been carried out as a practice for the medical residents, and not due to a medical necessity. The same way as Connie, a series of female characters are

portrayed as being oppressed and victimized by dint of seeking reproductive treatment. Connie's mother, Mariana is performed an unconsented hysterectomy when her child is stillborn, which leaves her feeling less of a woman. Connie's sister Inez, consulting a scientist thinking he is a doctor to receive contraceptives are provided with a different kind of medication as a part of an experiment that Inez has not been informed of, leaving her pregnant with a disabled child that she has to provide for, in addition to the emotional suffering she will bear her entire life. Connie's niece Dolly is forced into an abortion by her 'pimp' with the help of a veterinary surgeon. All these instances of abuse and objectification of the female body are literary projections of the possible atrocities that could be performed through the invasive application of reproductive technologies when the medical and scientific establishment is ran and funded by institutions of capitalist patriarchy that do not always serve to the best interests of women.

Weldon's engagement with a feminist reading of the human reproductive cloning expands from the medical field into its wider implications for psychological unity, understanding of selfhood and the new modes of defining kinship. Her narrative investigates the ways in which the potential violation of the female bodily integrity through the instruments of reproductive technologies challenges the traditionally held notion of the self as a fixed, coherent being, which forces the subject into a process of reconstruction of the individual identity.

The disintegration of identity Joanna experiences that reaches its climax point through Joanna's violent confrontation with the fact that she has been cloned against her consent and without her knowledge starts with the dissolution of her marriage. Emblematic from the repeated use of the phase "I, Joanna May", the reader is given an idea as to the lengths of her refusal and inability to separate herself from her ex-husband, Carl May. Holding onto Carl's surname as a way to define who she is demonstrates how her individual identity and her position

in society is inexplicably connected to Carl May's presence in her life even after she was discarded from his life upon the discovery of her illicit affair with Isaac King. Carl May, when the domination he has exercised over Joanna's mind and body for so long is threatened by a third party, casts her out, depriving her of the privileges she has enjoyed for being his wife. Joanna's forceful separation from the life she has built marks the beginning of her identity crisis, as she explains: "The solid door stood between me and my marriage, my home, my friends, my clothes, my possessions, my past, my future, my life…. Carl had cast me out of his life; I had become a supplicant: I belonged the wrong side of the door" (180). Here, the way Joanna is punished for her moral transgressions is symbolic of Carl May's general manipulative and materialistic attitude. By murdering Isaac and getting away with it through forcing Joanna into perjury, he turns her into his accomplice, making sure that Joanna feels she has betrayed Isaac as well. Being under the impression that by perjuring herself, she will earn Carl's forgiveness, Joanna complies and finds herself locked out of both Carl's life and her house. Carl May makes it explicit that everything Joanna possess and everything she defines herself with belongs to him and without him she is reduced to nothing. As Joanna explains:

> My clothes had been destroyed, my papers and my books and my family photographs shredded, and my parents' marriage certificate and my father's death certificate too; and no sign of me was to be left in the house, all trace of me was to be destroyed. I was free to begin life again as he would be, without evidence of the past, and I should think myself lucky. (181)

Here, Carl May, in an attempt to annihilate her identity, erases all traces of both her and her parents' existence by destroying the legal documents along with her memories and belongings. Her sense of who she is up to that point in her life is irrevocably disrupted, traumatically pushing her into a search for a redefinition of identity. However, Carl May's strong presence, after a

lifetime of being an integral part of her personality, renders the notion of an independent, autonomous self problematic for Joanna May, as she contends:

> How desperately I, Joanna May, tried to be myself, not Carl May's wife. Even in exile, even divorced, I was married to him, linked to him. She married to him is so different from he married to her. She occupies a little space in his head; he surrounds her, encloses her, as a white leucocyte surrounds some invading cell; […]". (323)

As made explicit in the above excerpt, Joanna's struggle to form an individual selfhood is rendered unavailing by Carl May's long-lasting authoritarian reign over her body and mind. The metaphor of the blood cells "leucocyte" surrounding an "invading cell" is highly suggestive of Carl's treatment of women. Although blood cells' purpose is to protect the body from outside attacks, which can hardly be cited as the motif behind Carl May's atrocities, the power of the blood cells to fight and attack the invading enemy resonate with Carl's aggressive and despotic approach to conquer and dominate women in his life. This attitude that results in his physical violation of Joanna's bodily unity through his act of cloning is further emphasized when he waits for the moment that will be most destructive to bring the existence of the clones to light.

Upon Joanna's disclosure of the fact that she has a new lover, Carl May is blinded with fury and in an attempt "to punish her, to take away her singularity" (47), he boastfully reveals by saying: " I cloned you, added another four of you to the world….. There are many of you and many of you gloated Carl May and that means there are none of you because you amounted to so little in the first place" (141). Here Carl May's strategy to negate Joanna's identity and sense of uniqueness by both erasing the reminders of her existence from his life and presenting the clones in a light that would problematize Joanna's authenticity succeeds in putting Joanna in a confounded situation where she does not know how to register the news as she is "shocked into calmness, paced and thought and considered herself split into five and her gorge rose into her throat" (141). Thus, the physical split of her body into four more versions is perceived as a

split in subjectivity and the holistic view of the self. This clash of identity that surfaces here is foreshadowed in the narrative through Joanna's recurrent word play on the pun "I"/eye. The interaction between the words "I" and "eye" represents a search for the power and agency to transcend from a passive observer as an "eye" to an active agent of her unified "I", an autonomous identity. Joanna repeatedly refers to the biblical phrase "If thine eye offend thee, pluck it out!"(28), that preaches the punishment of the self for the perceived threats outside of the body in order to preserve "thy view of thyself as a fine and upright person" (179). Here the emphasis on "eye" can be read in analogy with the super ego in Freudian terminology in terms of the correlation between their functions. The same way as the super ego functions as an internal policing system that watches and judges, trying to bring order to the internal conflict that arose due to the dissonance between the outside world and the desires of the inner self, the "eye" here serves as a censor, observing and receiving the external threats to its unity and integrity of the "I" but not acting. Weldon employs this biblical phrase with a twist that denotes to the need of reconstructing of the self. "If thy eye offend thee pluck it out!" can be read as an act of erasure of the identity that does not serve to the self any longer. The offence stems from the internal conflict that does not reconcile with the social situation that the self is thrown into. The "eye" has to be plucked out, the "I" has to be eliminated to be rebuilt.

This disintegration of the "I" is underscored with the excess of the female body that finds its echo in the psychological fragmentation. Replication of the physical body presents a substantial source of anxiety over the loss of individuation and singularity. As represented through Joanna's experience, our physical being is so intricately related to our sense of self and identification as a unique human being that the multiplication of the physicality proliferates the deep seated fear of not knowing who we are and losing substantiality. Joanna's fears and reservations about confronting her cloned selves can be analyzed in parallel with the concept of "uncanny" theorized by Freud. In his paper titled "the Uncanny" (Das Unheimliche) 1919,

Freud puts forward the notion of the "uncanny" through his analysis of E.T.A. Hoffman's short story "the Sandman" building upon the theories of Ernst Anton Jentsch and Otto Rank. Freud explains this concept as "that class of terrifying which leads back to something long known to us, once very familiar (1-2). The uncanny can be characterized as the sensation of "dread and creeping horror'' in the face of an object, a place, an event or someone that crosses the boundaries between familiar, "long known to us" and unfamiliar, novel, "eerie" at the same time. Freud here presents a paradox in terms of what constitutes the feeling of "uncanny". The exposure to that which embodies both something "heimlich", a German word that denotes to "tame, intimate, comfortable, homely" (Freud 2) and "unheimlich" which means "uneasy, eerie, bloodcurdling" (Freud 3) evokes the "uncanny" reaction. The paradox in the linguistic sense also resonates with the psychological crisis that the subject encounters in the shape of a collapse of the margins between familiar and other, known and unknown, reasonable and improbable, same and different, pleasant and repulsive…etc. The concept of uncanny is presented as prominently connected with the "idea of a double" (Freud 8) in the sense that the subject's encounter with its double brings to surface the anxieties about the collapse in the notion of a self-contained individual identity, about loss of selfhood and wholeness. Freud in his paper underlines Otto Rank's analysis of the figure of the double as a method of protecting the self against the threat of death. Freud contends, "the 'double' was originally an insurance against destruction to the ego, an 'energetic denial of the power of death'" (9). However, the image of the double that entails self-preservation can also symbolize the death of the subject, the originator due to the threat it poses to the sense of uniqueness and integrity as Freud affirms; "From having been an assurance of immortality, he becomes the ghastly harbinger of death" (9). The treatment of the double within the discourse of the "uncanny" offers an analogy with the figure of the clone. A clone can be characterized as a double manufactured through the reproductive technologies, providing a mirror image that brings the self to a violent

confrontation with the "other" as the self and in the process rendering the self an "other" by encroaching on the notion of individual uniqueness.

The feeling of uncanny is brought about by the ambiguity of the clone in its relation to the original in the sense that the boundaries of the body is disrupted with the powerful presence of an external object that represents the "I" but at the same time is not "I". This undefinable object of horror elicits fear and terror by constantly threatening the identity, originality and singularity of the self, as Michelle Kennedy in his paper titled " 'Are We Not Men?' The Effect of Cloning on Traditional Theories of Humanity and Personhood" affirms:

> The double, the clone, can, like Dracula, excite fear and trepidation in society because it is the unknowable and unfamiliar other, yet in all verifiable ways a simulacrum of the self...From this perspective, the human clone's greatest threat to traditional theories of self is not in its difference from humanity, but rather in its inherent similarity. (122)

As aptly put forward in the excerpt, the figure of the clone is deeply unsettling in terms of giving rise to the disappearance of the demarcations between the self and others as it presents the incarnate image of the sameness and difference at the same time. In Freud's analysis, the meeting of the self with its double calls forth a process in which the self "identifies himself with another person, so that his self becomes confounded, or the foreign self is substituted for his own—in other words, by doubling, dividing and interchanging the self" (Freud 9). Here the figure of the double or the clone forces the subject into a process of self-objectification by way of creating splits both in the physical presence of the originator's body and in the psychological perception of the identity through posing the threat of the absence of originality and singularity. The feeling of the uncanny evoked by the confrontation with one's double/clone as outlined by Freud invites a parallel examination of Joanna May's identity crisis triggered with the news of her clone others. Joanna, confused and afraid, ruminates on what these clones might represent to her, as follows:

> I, Joanna May, beautiful and intelligent in my prime, now past it, am a woman plus repetitions, taken at my prime. Carl's fault, Carl's doing. I am horrified, I am terrified, I don't know what to do with myself at all, whatever myself means now. I don't want to meet myself, I'm sure. I would look at myself with critical eyes, confound myself. I would see what I don't want to see, myself when young. I would see not immortality, but the inevitability of age and death. (157-58)

Here, the dissolution of the sense of a stable self, precipitated by the uninformed, unconsented application of the post-modern instruments of technological reproduction is brought to the fore with Joanna's inability to establish a settled opinion as to how to perceive and categorize both her clone selves and her own individuality in relation these familiar "others". The illegally produced excess of the female body renders Joanna "a woman plus repetitions" who are thirty years younger than herself, attacking her singularity and uniqueness with their youth and beauty that Joanna has long left behind. Joanna's feelings are evocative of the uncanny sensation that confrontation with one's double creates in Freud's examination of the doubles. Joanna unable to determine where to position these clones in her life turn them into objects as exemplified by her choice of words "repetitions", denying their individual personality and relegating them to the position of inanimate dolls rather than autonomous human beings. This objectification is also directed towards the self since she admits she dreads coming face to face with these clones for fear of being critical of herself as an object projected through the gaze of the clones. In this light, another point of reference can be made to Freud's analysis of the uncanny in relation to the double. The same way as Freud underscores the possibility that the double would be perceived by the subject as "the ghastly harbinger of death", Joanna emphasizes that all she will be reminded upon her contact with her clone selves would be the "inevitability of age and death". The apprehensions about confronting one's clone is justified by philosopher Slavoj Zizek in his analysis of the theme of the double and cloning as well. Zizek in his essay titled

"Of Cells and Selves" questions the implications of human reproductive cloning on the human subjectivity and dismisses the idea put forward by the Catholic church that human cloning robs the individual of his/her subjectivity by relegating the subject to its genetic code that is dissected and manipulated during the process of cloning (307). He contends that human beings are a complex result of an interaction between their genetic code, their environment and the way they choose to situate themselves in relation to their environment and genetic code (314) and not a biological machine whose core of identity can be manipulated through the replication of the somatic cells. However, Zizek acknowledges and underscores the terror and the dread confronting the figure of the clone might produce in the subject. Zizek holds that encountering the clone, as the embodiment of the "traumatic excess, a foreign body which cannot be integrated into [the self]" (308), brings the subject to a point of self-objectification, an argument also underlined by Freud in his exploration of the theme of the double, in which the subject who previously has not had an "objectal counterpoint" of his/her "unique" self, which refers to an external object representing the core identity, encounters the object of his/her being, his identity, his essence which renders this confrontation as "something that shatters the very core of subject's identity" (315). The "objectal counterpoint" of the subject is not registered as just a biological replica of the body but as another "self" that exists completely independently of the subject and cannot be brought under control as Zizek asserts:

> The true point of anxiety is thus not that of doubling of the body, but that of doubling my unique soul, what makes me creep at the thought of encountering my double is not that he looks exactly like me, but that in his personality, he 'is' another me, that he clones the very uniqueness of my personality. (316)

As Zizek deftly puts forwards in the quote, the perceived attack the figure of the clone launches against the subjectivity, sense of uniqueness and authenticity of the "self" resonates with Joanna's initial confusion and rejection of her clones for fear of being submerged into one single

identity in which they share the same characteristics and experience, eradicating her individuality in the meantime. As Joanna declares:

> These clones, these sisters, these daughters, what are they to me? […] Let them die. I don't have the courage to die, to kill myself, to put an end to the shame, the rage, the desire, the fear that is Joanna May. But let them die, those other versions. (245)
>
> ....
>
> I'm not at all sure that I recognize their right to life, these thefts from me, these depletings of my 'I', these early symptoms of the way the world is going. I might myself be rather in favour of termination. I must think about it. (204)

Here, Joanna, in confusion of the sudden and abrupt realization that she has been stripped of her originality questions her relation to the clones. Their ambiguity poses a dilemma to be explored and defined. She is not sure if she should perceive this twisted web of biological closeness as familial relations that might expand her ties to the world or as identity theft in which the clones' unnatural relation to her transgresses the boundaries of her physical and psychological sovereignty. Joanna's initial perception of the clones as "depletings" of her "I" reverberates Zizek's assumption that the alien 'other' threatens to steal "the very uniqueness of [her] personality". As her physical being, her façade grows in number, her essence and fixed, stable being comes under the threat of being diminished.

After the initial shock and horror subsides, Joanna's antagonistic attitude towards the clones starts to change especially when she realizes that Carl May's manipulations, violence and atrocities now will target clones as a new method of torturing Joanna. She comes home to find Oliver murdered and tarot cards left beneath the hanging body of Oliver as a message sent by Carl May (191). The cards Hanged Man and Queens of Wands, Pentacles, Swords and Cups are interpreted by Joanna as a threat to murder the four clones as represented by the four queens, intentionally left by Carl May next to the Hanged Man that represents Oliver's hanging, dead

body as Joanna explains: “Carl May has killed Oliver, and now he means to kill the clones. He has told me so, by way of the cards. He thinks this will hurt me. He offered me a family: now he snatches it away again” (204). Although at this point, Joanna has not reconciled with the existence of her clone selves and is nonchalant towards Carl’s threats, his constant attempts to disempower, oppress, tyrannize and subjugate Joanna brings her over a tipping point where she has had enough of Carl May’s egoistical, abusive intrusion into her personal sphere. She contends as follows: “The murdering bastard! He took Isaac, he took Oliver, but he shan’t have the clones. I want them. I need them. They’re mine” (246). Her claim over the clones is emblematic of her desire to retrieve her identity, her agency and control over her life back from Carl’s constant scrutiny and power games. She sees the pattern of Carl’s lifelong attempt to achieve total domination over her physicality and individuality and is overcome with a protective instinct towards her younger selves whom she can still save from Carl’s atrocities. She asserts;

> He has stolen thirty years of life from me. And now it’s too late. For me, but not for them. I have my four more chances, and that’s how I must see it. (265)
>
> …
>
> […] I wanted to see what I would be, born into a newer, more understanding world: one which allowed women choice, freedom and success…What fun it would be – that rare commodity. (265)

The figure of the clone, being the product of post-modern technological intervention into the realm of reproduction does not come with any social explanation of how to categorize and define it. This ambiguity gives Joanna the chance to explore all the possible meanings that can be inscribed into the body of her clones and situate herself in relation to them. Weldon presents the implications of the cloning technology in its wide ranging destructive and positive repercussions in relation to individual agency and authenticity within the discourse of identity.

As opposed to being a threat to her personality and sense of a unique self, the figure of the clone presents more options for Joanna to identify with. She starts to perceive them as her "four more chances" to stand against and overthrow her oppressor Carl May. Her newly-found agency and desire to retrieve the power she has been denied all her adult life opens new possibilities to discover herself. Zeynep Z. Atayurt in her essay titled "Fay Weldon's *The Cloning of Joanna May* as A Feminist Dystopian Burlesque" comments on Weldon's portrayal of the emancipatory prospects that accompany being multiplied into four more versions as follows: "Weldon gradually renders her heroine a certain sense of power facilitated by not a loss of individuality but rather by a reinscription of her identity onto her clones, a situation which arguably reinforces her singularity as well as universality" (8). As put forward in the quote, once Joanna recovers from the trauma of the excess body in the form of her clone selves she finds herself empowered, emboldened against Carl May. The multiplication of the body does not register as being impoverished in terms of selfhood and originality but it functions as a source of strength, diversity and richness of character. She stands bold and tall against Carl May, asserting;

> Nail me and alter me, fix me and distort me, I'll still have windows on the world to make of it what I decide. I'll be myself. Multiply me and multiply my soul: divide me, split me; you just make more of me, not less… you might end up doing more good than harm, in spite of yourself, if only by mistake. (143)

The power found in plurality as evident in the above excerpt is intrumentalized in the reconstruction of identity and subjectivity. The clones can be read as metaphorical fragments of Joanna's identity, her repressed selves that she has not been able to bring to light due to Carl May's monopoly over her individuality. The clones - Jane, Julie, Gina and Alice - brought up in different environments and family settings are products of their upbringing and differ from each other and Joanna May in spite of sharing the same genetic code. Jane is a high level

executive at HBO with the prospect of a promotion, a career she refuses to set aside to succumb to her long-term boyfriend Tom's desire to marry and have children. She is described by Tom as "overeducated" that supposedly renders her unable to fulfil her feminine duties. Julie is the wife of an executive who spends most of his time outside of the city, leaving Julie lonely and unsatisfied. Despite her desire to mother, she cannot have children due to her husband's infertility problem. She is self-critical of being unable to leave her husband and engages in an illicit affair with the vet doctor of her pets that she owns in replacement of children. Gina is married with three children and constantly being subjected to domestic violence by her drunken husband. Alice is a model who has renounced marriage, children and domestic life, engaging in short-term relationships with mostly married man to avoid commitment. Although traditional clone narratives do not grant the figures of the clone their individuality due to their deviation from the normative way of reproduction that is grounded in the embodied fertilization and gestation, Weldon's treatment of Joanna's clones as autonomous individual beings opens a discourse on the nature/nurture debate in the face of postmodern technological takeover of the reproductive activities. The social circumstances these clones have been brought up in posit them different from each other in terms of physical appearance, modes of thinking and romantic and professional choices which could instigate a larger debate similar to the investigations into the experiences of twins separated at birth and found one another later in life, which is not a subject to be explored in this thesis. However, the politics of difference enter into play here once again. Brought up with no contact and in different socio economic and cultural circumstances these clones reflect the possible identities that Joanna could have had, which is liberating and entertaining to think about once the confrontation is embraced.

Weldon assigns the symbolic characteristics of the four queens in the tarot cards to the clones. Queens and clones in a symbiosis represents Joanna's alternative selves: Queen of Wands associated with the element of Fire represents Jane due to her intellectual nature and

charismatic leader quality. Julie is represented with the Queen of Pentacles associated with the element of Earth that drives her power from self-confidence and prosperity. Gina embodies the Queen of Swords associated with the element of Air, due to her strength and endurance in the face of adversity. Lastly, Alice is represented by the Queen of Cups associated with the element of Water which corresponds to her emotional nature and engagement in her self-expression through physical beauty and aesthetics. These queens embodied by the clones that surround Joanna May are connected to four elements of nature which symbolically come together in Joanna, culminating in a unified, integrated self that finds strength in diversity and plurality. The elusive "I" Joanna has been searching for, her need for appreciation, love, identification and communication is achieved through coming in contact with four more versions of herself. Her metaphorical search for her "self" as a marker of unified subjectivity corresponds to a literal search for her alternative selves and is completed with the encounter with these clone selves. As Joanna affirms: "When I acknowledged my sisters, my twins, my clones, my children, when I stood out against Carl May, I found myself: pop! I was out. He thought he could diminish me: he couldn't: he made me" (324). Here, the clones trigger Joanna's self-recognition process in which her disintegration of her self-contained individuality is rebuilt through her acknowledgement of her clones. This process of re-construction of identity/ego is reminiscent of Lacan's mirror stage in which the infant, recognizing him/herself as an independent object in the mirror in an illusionary wholeness achieves differentiation from the rest of the world and its mother (Lacan 78). In a post-modern reading of this stage of self-differentiation, the clones of Joanna May, by dint of their status as the bearer of the exact genetic code with the originator, come to represent the ultimate mirror image that Joanna confronts and the ensuing traumas resulting from this painful confrontation give rise to the construction of a new individual identity. This process can be read as a passage from the order of the Real to the Imaginary in Lacanian terms. Joanna's confrontation with her mirror images forces her out of the order of

the Real, the place of non-differentiation, the state of fluidity where all identification collapses (Jackson 49), which resonates strongly with Joanna's fragmentation and dissolution of a stable sense of self in the face of the physical and psychological threat posed by the presence of the clones and Carl May's domination on her individual identity. We can say that Joanna's identity is removed from the order of the Real into the Imaginary order when she forms an illusionary wholeness, an "ideal-I" in Lacan's words (Lacan 76) through her recognition and acknowledgement of the clones, an act that puts an end to her perceived psychological fragmentation. The imagery of birth in the above quotation is important note here for the dramatic encounter with the fragments of her identity finalizes Joanna's search for wholeness. In a reversed metaphor for birth, clones give birth to Joanna's new autonomous "self", a situation which she describes as follows: "pop! I was out".

Through her literary projection of the implications of human reproductive cloning technology, Weldon offers new avenues of exploration of alternative definitions of kinship bonds and new representations of motherhood marked by the biotechnological reproduction. The intricate relationship between Joanna and her clones whom she refers to as "my sisters, my twins, my clones, my children" can be analysed within the discourse of postmodern webs of kinship in the age of technology, promoted both by Haraway and within the xenofeminist thought.

As discussed in chapter one, building on Donna Haraway's call to "make kinship, not babies", xenofeminists emphasize the emancipatory possibilities of moving away from the traditional modes of kinship-making to adopt new forms of social bonds that are not grounded in biological reproduction. For xenofeminist thinkers, the justification for the removal of biological family ties lies in its perceived perpetuation of the same (Hester 66) in the sense that biological bonds propagate the 'restrictive' concepts of sameness and familiar, producing the same social values and fabric that undermines diversity. Examined in this light, cloning

technology does not exactly correspond to what xenofeminists underline as the source of diversity due to its proliferation of the same genetic code, however, xenofeminist emphasis on employing instruments of technology to eradicate hierarchical power relations that operate asymmetrically between the sexes submits Joanna May's empowering acknowledgment of her clones to a xenofeminist analysis. Clonehood as a postmodern kinship mode made possible by reproductive technologies can be read as the 'alternative networks of solidarity' (Hester 66) underscored in xenofeminist approach. As represented in the narrative, clonehood as a type of affinity that is produced through common sharing of the same genetic code is a combination of sisterhood and multiplication of singularity divorced from traditional embodied reproductive activities of the female body, which allows the formation of a strong allegiance among individuals who come from different social, economic and educational backgrounds. Joanna emphasizes this strong unity, saying; "We are one woman split five ways, a hundred ways, a million million ways" (350). This female agency and empowerment that emerged out of the application of reproductive technologies is used by Weldon to illustrate possible scenarios where women can appropriate the outcome of technological invasion of their bodies as a way to strengthen and expand their solidarity.

Joanna's clones emblematize this sisterhood and female authority through their defiance of Dr. Holly, who believes they should be grateful to him for granting them their lives and his technological devices of patriarchal manipulation of the female body, forcing Dr. Holly to account for his transgressive act of cloning. The narrator describes the clones' newly found unity as follows: "They had rapidly acquired the habit, now they were together, of dividing up a sentence amongst them and handing it out, with fourfold emphasis (307) … they defended each other, to attack one was to attack all" (329). The clones whose lives have been a series of events that drive them into loneliness and suffering from the lack of something they could not identify find unity in coming together of the fragments of their alternative selves as explained

by the narrator: "They could see now that was the trouble – they'd been lonely. They used men to stop them being lonely. No wonder it all went wrong. Now they had each other, nothing need be the same" (330). Their search for connection, strength and encouragement comes to an end in the community of women they have formed. Joanna, once freed from her twisted and tormented entanglement with Carl May, gains clarity of judgment and a vision for what needs to be done to prevent him from committing further transgressions. Informed of Carl May's planned demonstration of diving into the cooling pond where they place "the spent fuel rods" of his nuclear power plant to prove to public the safety of the nuclear energy, Joanna devices a plan to stop Carl May forever. She arranges someone to put "rods which are not quite spent" (325) in the cooling pond and pays the personnel not to report the increased radioactivity level in the pool to the relevant authority (325). Joanna justifies her act of violence as follows:

> Carl May could not go on. I let Angela know, who let Gerald know; a man may murder his wife's lovers, but cannot be mad in charge of four nuclear power stations. I was no longer just a wife; I was a human being: I could see clearly now. (324)

Here Joanna, having been able to set herself free from Carl's influence, can see the urgency of removing Carl from his position of power. Carl May repeatedly dives into the radiated pool to make a show for the press and exposes himself to a fatal radiation poisoning. This act of violence is undertaken by Joanna to simply eliminate Carl who is disturbed beyond recovery and prevent his ego, clouded judgement and unstable personality from inflicting further damage as the head of the British nuclear industry, rather than as a revenge for the physical and emotional suffering she has been put through. The act of killing opens another dialogue with Piercy's *Woman on the Edge of Time* whose ending provides a similar plot twist wherein Connie, as an act of war, poisons and kills the doctors who try to take away her autonomy over her body and mind. Although neither of the books promotes violence or murder as a way of salvation from the injustices against the marginalized groups, we can say that the women

characters in both novels who are positioned in a patriarchal society that has indoctrinated women into associating power with using violence, feel obliged to enact the patriarchal values which glorify aggression and violence, as a way of resistance against the very system. We can read these acts of female violence as a part of Marge Piercy's and Fay Weldon's call to women to take control and actively seize power to reclaim their individual autonomy while underlining that it would be naïve to think that fighting against a culture which perpetuates violence, abuse, mistreatment through its legal, social, techno-medical institutions, women can achieve emancipation only through peaceful, diplomatic channels.

Carl May, remorseful and meek in his final moments, asks Joanna to clone him to redeem his mistakes by providing a better, healthier upbringing this time around. Joanna complies and with the help of Dr. Holly, little Carl is born to be raised by Joanna. Weldon's engagement with the notion of clonehood as social and biological bond offers a new ground of investigation of the implications of cloning technology on the notion of motherhood. The clones themselves deny Joanna the role of the mother as the traditional definitions of motherhood is too narrow and insufficient to define their symbiosis. They confer her the position of a "chairperson" (331), denying her the authority to interfere into their lives but acknowledging her presence as their originator. Joanna's desire to mother is actualized by the human reproductive cloning technology with the help of Alice who serves as the gestational mother to little Carl and delivers him to Joanna when he is six weeks old (348). Drawing on this, we can extrapolate on the newly opened possibilities for redefinition of motherhood among the members of the clonehood. Gina, renouncing her role as a mother gives her two sons to Julie who longs to have children and is unable due to her husband's infertility. Jane adopts Gina's third child, Sue and lets her long-term boyfriend Tom move in to help take care of the child (349). The clones explore possibilities of new alliances and affiliations to perform the responsibilities of motherhood. Their newly formed kinship and empowerment allow them to

enjoy motherhood in an unusual collaboration, using their genetic sameness to their advantage while holding onto their separate individualities and preferences. This new definition of motherhood which allows for responsibility sharing rather than relying on conventional exclusive mothering in which the mother takes on both gestation, in-vivo childbirth and care-giving duties, can be analysed in intertextual dialogue with Piercy's *Woman on the Edge of Time.*

Piercy's fictional representation of the female emancipation from trials and tribulations of the biological mothering through the introduction of the reproductive technologies which take birth and pregnancy outside of the female body, renders the notion of motherhood a more pluralistic and inclusive social relation that allows both sexes to embrace it when desired. In the utopian town of Mattapoisett, children are brought to the world through the 'birthing chambers' with a randomly chosen genetic mix that eliminates the privilege of biological inheritance. In this social organization, three co-mothers of either sex volunteer to undertake the caregiving responsibilities until the child turns thirteen years of age. This arrangement that separates reproduction from sex, gender and biology offers new modes of kinship-making that is grounded in love, friendship, companionship rather than biological bonds. Weldon's vision in a similar way introduces clonehood as a postmodern kinship mode that allows responsibility sharing, solidarity and empowerment.

In conclusion, *The Cloning of Joanna May* is a novel that provides a platform for feminist analysis of the socio-cultural implications of the human reproductive cloning as a form of reproductive technologies. Bringing together the basic tenets of Second Wave Feminism and Green Movement, Weldon lends her narrative to an ecofeminist investigation in which the roots of domination and subjugation of both woman and nature is traced to patriarchal capitalist institutions embodied by Carl May. Being the head of nuclear power stations and patron of science, Carl May is able to manipulate the techno-scientific power for his solipsistic ends as

exemplified by his uninformed and unconsented act of cloning Joanna May as a punishment for the perceived betrayal in the form of a hysterical pregnancy. Weldon presents the possible destructive and invasive application of the reproductive technologies in the hands of egocentric, selfish men that dominate the scientific and medical realm, rendering women passive receivers with diminished agency and autonomy over their reproductive body. Weldon's inclusion of the natural catastrophic event of the Chernobyl disaster into the narrative aims to shatter the illusion of professed mastery of governments and capitalist market dominated by male supremacists over the nuclear technology. The destructive application of reproductive technologies through non-consensual intervention to Joanna's reproductive processes is echoed by the global scale ecological destruction caused by the failure to control the man-made nuclear power plants. The bio-technological intrusion into the female body that violates and breaches Joanna's physical integrity and sovereignty brings forth a corresponding psychological disintegration manifest through Joanna's identity crisis upon confronting the fact that her body has been multiplied into four more versions. The excess of the female body is initially perceived as infringement of her sense of a stable individual self, singularity and uniqueness, driving Joanna into a trauma that results in her revolt against the oppressive treatment and manipulation she has been subjected to throughout the years by Carl May. Joanna May subverts her position as a target of technological manipulation employed as a punishment against her maternal body by Carl May and appropriates the products of this illegal act of cloning as a means of self-empowerment, reconstruction of identity and formation of female solidarity through the unusual postmodern kinship web of clonehood.

Weldon powerfully dramatizes the decade specific feminist concerns over the possible invasive application of the reproductive technologies within the patriarchal medical establishment that might serve to diminish female agency and dismantle subjectivity. In her engagement with the socio-cultural implications of the reproductive technologies, Weldon leaves room for possible

positive outcomes that can be drawn from the technological appropriation of female reproductive power as well. In addition to acknowledging the presence of her clones as an empowering and unifying experience, Joanna's re-appropriation of the reproductive technologies to clone Carl and create a better nurturing environment for him serves to gratify her own long sought-after desire to become a mother. Weldon juxtaposes two different modes of application of reproductive technologies whose outcomes and repercussions differ based on the intentions and purposes of the agents that employ it. The same medium, namely human reproductive cloning, is used for different ends by Carl May and Joanna. While Carl May employs them for egoistical purposes gratifying his god-complex, Joanna fulfils Carl's last wish to redeem himself and has a second chance in becoming a mother. This double appropriation of the same medium for different ends demonstrates Weldon's liberal approach to reproductive technologies which denotes the rejection of techno-pessimist feminists' bias that the instruments of reproductive technologies are in and of itself detrimental to woman and underscores their potential for emancipation and empowerment.

CONCLUSION

Marge Piercy's *Woman on the Edge of* Time (1976) and Fay Weldon's *The Cloning of Joanna May* (1989), engaging with the basic tenets of the Green Movement and Second Wave Feminism of the 1970s and the 1980s interact with the socio-political circumstances of the time of their publication and explore wide ranging implications of the potentially destructive and emancipatory applications of reproductive technologies. These novels stand out among other contemporary literary portrayals of the reproductive technologies in their explorations of the relationship between the female body, technology and nature in both utopian and dystopian contexts. Through their narratives, Weldon and Piercy project both the anxieties of ecofeminists and techno-pessimist feminists with regard to the reproductive technologies and the potential liberatory repercussions of these technologies, envisioned by techno-optimist feminists. These critical feminist approaches respectively view the prevalent use of the reproductive technologies as abusive scientific instruments of male supremacist culture and emancipatory for women by way of offering a release from the biological reproduction and the responsibilities of exclusive mothering that has been historically used to confine women to the domestic sphere. Engaging with the issues of objectification of the female body, nonconsensual and uninformed application of the reproductive technologies, women's diminished agency and autonomy over their biological processes; the disruptive impacts of the insensitive use of technological progress and the ventures of patriarchal capitalism on the ecological systems, and the crisis of identity experienced in the face of technological conception, these novels offer a broad range of social implications which have been used within the scope of this thesis to provide speculative insights into the intricacies and complexities of the relationship between reproductive technologies and the female body. Through an analysis of the writers' projections

of the possible futurities in which the employment of reproductive technologies serve to both further oppression and abuse of the female subjects and to create more egalitarian social realities for women in critical dialogue with the polarized feminist approaches towards the reproductive technologies put forward by the ecofeminist and xenofeminist theorists, this thesis arrives at the conclusion that reproductive technologies are themselves devoid of any inherent positive or negative implications per se but they serve as a highly politicized platform of bio-technology onto which decade specific socio-cultural values and ideologies are inscribed as implied in the novels.

Marge Piercy's *Woman on the Edge of Time* presents a dramatization of the debates and discourses on the potential impacts of the technological manipulation of the female reproductive body and bio-technological takeover of the reproductive processes on women's agency, autonomy, socially constructed notions of womanhood, motherhood, marriage, family unit and biological kinships. Her narrative engages with the polarized feminist approaches to these technologies through three different timelines and social settings, serving as distinct reference points to come to an understanding on how these technologies can evolve and devolve our concurrent political and cultural trajectory. Connie's society of 1976 New York wherein she is victimized and oppressed by various agents of social, legal, medical institutions is presented in a realistic tone that projects a world similar to the one in which 20th century readers see themselves. This realistic society that Connie shares with the reader has the potential to give birth to two alternative futures. One is the utopian community of Mattapoisett in which long battles and revolutions have led to the elimination of power structures, class stratifications, patriarchal capitalism, environmental disruption and gender roles marked by the application of reproductive technologies to achieve ectogenetic birth that puts men and women at equal distance to the childbirth and parental tasks. The second futurity with which Connie's society is compared and contrasted is the dystopian world of Gildina where the damage to ecological

systems has resulted in environmental desolation which threatens the lives of the poor who has to live on the surface level and are regularly exposed to air pollution. In this nightmarish futurity, the fetishization of the female body has reached to a point where the bodies are the property of the corporates that have the exclusive rights to dismantle and harvest the organs. Women are turned into disproportionate objects of male fantasy through technological intervention in their bodies while men are turned into cyborg-like enhanced humans equipped to protect and assassinate upon order. Drawing attention to the prospect that Connie's 20th century society is the basis upon which either one of the two futurities can be built through the actions or inactions of the reader, Marge Piercy's narrative serves as a call for action and organized political resistance. The representations of reproductive technologies both as serving to deepen the oppression, marginalization, objectification of the female body and to create a completely egalitarian society have been analyzed in parallel with diverse feminist ideologies drawing insights from both ecofeminist approach that has inspired the techno-pessimist feminists to vocally oppose to the reproductive technologies and xenofeminist critical approach, informed by the politics of Donna Haraway and Shulamith Firestone in which reproductive technologies are regarded as the key to women's emancipation and to the creation of an egalitarian society. Following these points of analysis in the context of the novel, this chapter of the thesis demonstrates that reproductive technologies are the products of the historical and social circumstances into which they were developed and as Piercy implies in her narrative, before turning away from the technological innovations as instruments of patriarchal endeavour that perpetuates the sexist, misogynist, racist cultural paradigm, the institutionalized and systematic oppression of women, racial politics, class struggles inherent in the 20th century Western society needs to be recognized and addressed through collective action. Only with the elimination of the hierarchical power relations, the technologies can be stripped off of their culturally and politically imposed oppressive qualities.

Fay Weldon's *The Cloning of Joanna May* follows a similar line of approach to the potential destructive or emancipatory application of the reproductive technologies. Human reproductive cloning as a form of reproductive technology is employed in the novel as an instrument of punishment and revenge by Carl May who accumulates the power of science and technology not to serve the public interests but to fulfill his misogynist, profit-driven, self-serving ends. Weldon strategically sets the narrative in the aftermath of the Chernobyl Disaster to denote to the failures and flaws of the institutions run by male politicians, scientists and businessman who claim safe mastery over the technological and scientific power they have created but prove unable to control. Carl May is meaningfully both the head of British nuclear power plants, Britnuc and patron of genetic science through which he attempts to manipulate and dominate both the female body and nature. Carl May's act of cloning his wife Joanna May thirty years earlier in the novel as a punishment for the perceived moral transgressions and to multiply her love for him while at the same time being involved in a cover-up of one of the deadliest nuclear disasters in human history has been analyzed within the discourse of the ecofeminist and techno-pessimist feminists' renunciation of the reproductive technologies as inherently detrimental and oppressive to women in the hands of mad-male scientists and corporate men who produce, employ and determine the uses of it. Joanna's confrontation with her four grown clone selves drives her into a traumatic experience of losing her sense of uniqueness and originality, and disintegration of her stable, individual identity. The uninformed, nonconsensual application of reproductive technologies is portrayed as breaching both physical and psychological integrity of the women who are rendered passive test subjects within a male dominated medical establishment and incognizant of the social, emotional and physical implications the illegal application of the reproductive technologies would bring about.

Projecting the complexities and possible destructive scenario these technologies might serve to bring to existence, Weldon subverts and challenges the potential abusive and invasive

intervention into the female reproductive body that threatens women's agency and autonomy over their biological processes through her protagonist Joanna May who appropriates the illegal act of technological multiplication of her body to find empowerment and female solidarity through her unlikely kinship mode of clonehood. Xenofeminist approach to reproductive technologies has been employed to analyze the alternative modes of kinship webs and the notion of motherhood submitted for a redefinition in the face of the newly formed affinity and solidarity through clonehood. At the end of the novel, Joanna re-appropriates the reproductive technology to clone Carl May before he dies. This final plot twist serves to underline Fay Weldon's liberal approach to reproductive technologies through the juxtaposition of their two different modes of application. While Carl May's invasive, uninformed and nonconsensual employment of the reproductive technologies projects ecofeminist and techno-pessimist feminists' anxieties over the abuse and objectification of the female body through patriarchal technological practices, Joanna's cloning of Carl May with Dr. Holly's help to give the clone Carl a safe and loving environment which was denied to original Carl May and to get a second chance to become a mother, serve to emphasize the potential of these technologies for female empowerment and agency, although it is important to note here that Joanna's selfless act of fulfilling the last wish of Carl May can also be read as gesturing at Joanna's not fully being able to overcome her attachment and commitment to her oppressor despite his emotional, moral, physical transgressions.

Through the analysis of the novel in dialogue with the ecofeminist and xenofeminist approaches, this thesis has emphasized the complex and convoluted nature of the reproductive technologies that instigate diverse public reactions with every shift in the technological landscape in relation to reproduction. Weldon's literary investigations into the conflicting ideologies and values attached to the techno-scientific advancements demonstrates the importance of fictional representations of the social and political impacts that technological

intervention into the realm of reproduction might bring about, opening a platform to take a critical distance to view these technologies in objective light.

The novels under scrutiny attempt to unveil the power structures concerning ectogenetic reproduction and human cloning by posing the following ethical questions: If and when possible, who would hold the power to apply them? What purpose would they serve? Who would at the receiving end of these technologies? How would they affect the social fabric? Who would benefit from the prevalent use of these applications and who would be missing from the decision making processes regarding the purpose of these technologies? Marge Piercy's and Fay Weldon's critique of reproductive technology is still relevant today. At the time of their publication, respectively in 1976 and in 1989, even though there was much debate about in-vitro fertilization, genetic engineering, new advancements in reproductive area, there was still no precedent to either ectogenetic birth or cloning technology. Only in 1978 the first successful in-vitro fertilization took place and in 1996 the cloning of Dolly the sheep took the world by storm. Up to date, ectogenetic birth and human reproductive cloning envisioned by Piercy and Weldon still yet to be accomplished although the reason it still has not taken place has more to do with the political and legal side of the issue rather than the technological capacity to accomplish it. The importance of both narratives can be underlined at this point. Literary envisioning of a technological breakthrough that has yet to take place allows the reader to question and explore socio-cultural implications of the event before introducing the phenomenon into the public life without considering the consequences it might spark off in social fabric. Through Piercy and Weldon's inquiry into the social ramifications of ectogenetic birth and human reproductive cloning which might potentially be put to use to either perpetuate the capitalist patriarchy or to create a more egalitarian society, the reader is provided with different vantage points to filter the subject in question and come to a more holistic understanding of the radical changes that might accompany these technologies.

Despite restricting its focus of analysis mostly to feminist considerations, this thesis through its exploration of the fictional representations of the social implications of reproductive technologies – a scientific area whose advancements and methods have become increasingly a part of shared contemporary reality that affects our socio-cultural values, our ways of connecting to each other and to the world around us – contributes to the field of medical humanities in terms of opening a dialogue between literature and contemporary biomedical developments. Interacting with various interdisciplinary areas, the analysis of these novels in this thesis opens a pathway for fellow researchers to examine literary representations of reproductive technologies in the context of their wide ranging ethical, physical, psychological and social dilemmas and repercussions. On this note, being a relatively new theoretical area of study, xenofeminist approach provides new avenues of research for contemporary literary and cultural studies.

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ÖZET

Bu tezde, Marge Piercy'nin *Zamanın Kıyısındaki Kadın* (1976) ve Fay Weldon'ın *Joanna May'i Klonlamak* (1989) eserlerinde distopik ve ütopik bağlamlarda temsil edilen üreme teknolojilerinin; annelik, kadının kendi vücudu üzerinde tehdit edilen otonomisi, kişisel bütünlüğü, kadın vücudunun metalaştırılması ve alternatif hısımlık kurma yöntemleri üzerinden incelenen sosyo-kültürel sonuçlarının edebi irdelemelerinin kapsamlı bir analizinin sunulması amaçlanmaktadır. Bu çalışmada, Üreme teknolojilerini sırasıyla kadın vücudunu kontrol etmek amacıyla kullanan ataerkil sistemin araçları olarak gören ekofeminist yaklaşım ve bu teknolojilerin, kadının sosyal ve ekonomik alanda özgürleştirme potansiyeline sahip araçlar olduğunu öne süren xenofeminist eleştirel yaklaşımlarının ortaya koyduğu görüşlerden yararlanılmıştır. Tezin birinci bölümü, kadın, annelik ve üreme arasındaki ilişkinin gelişiminin tarihsel sürecini açıklayarak tezin kuramsal çerçevesini ortaya koymaktadır. Tezin ikinci bölümü, *Zamanın Kıyısındaki Kadın* romanında üreme teknolojilerinin üç farklı zaman çizgisinde var olan farklı sosyo-politik düzenlerde mevcut hem baskıcı hem de özgürleştirici amaçlara yönelik kullanımlarının temsillerini karşılaştırarak kapsamlı bir analizini sunar.Bu şekilde, Piercy kadın ve teknoloji arasındaki ilişkinin, bu teknolojilerin icat edildiği toplumun sosyal ve politik değerleri ve ideolojileri tarafından şekillendiğini ortaya koyar. Tezin üçüncü bölümünde, *Joanna May'i Klonlamak* adlı romanda çıkarcı iş ve bilim adamları tarafından kadın vücudu üzerinde, insan klonlama teknolojisinin habersiz ve rızasız bir şekilde uygulanarak teknobilimsel manipülasyona maruz bırakılmasının doğurduğu sonuçları irdelenmektedir. Weldon, üreme teknolojilerinin potansiyel yıkıcı etkilerini feminist bir hamleyle tersine çevirir ve ana karakterini, kadın dayanışmasından yararlanarak bireysel kimliğini yeniden yaratması için güçlendirir. Bu çalışmada, kadının bedensel deneyimi üzerinden eserlerde temsil edilen üreme teknolojilerinin çetrefilli sonuçlarının tartışılması amaçlanmıştır.

Anahtar Sözcükler: Üreme, Kadın Bedeni ve Teknoloji, Üreme Teknolojileri, Doğa, Annelik, Aile Yapısı, Ekofeminizim, Xenofeminizm, Distopya, Utopia.

ABSTRACT

This thesis aims to provide an extensive analysis of socio-cultural implications of reproductive technologies (RTs) examined through the concepts of motherhood, women's threatened agency over their biological processes, women's individual integrity, objectification of the reproductive body, alternative modes of kinship-making as represented in Marge Piercy's *Woman on the Edge of Time* (1976) and Fay Weldon's *The Cloning of Joanna May* (1989). It draws insights from ecofeminist and xenofeminist approaches that respectively view RTs as inherently detrimental to women due to their potential for serving as the instruments of male desire to monitor and control the female body and as tools that potentially offer socio-economic liberation for women. The first chapter provides a historical account of the relationship between woman, reproduction and motherhood. The second chapter engages with both potentially oppressive and emancipatory applications of RTs through the juxtaposition of the socio-political matrix in three different timelines of *Woman on the Edge of Time.* In this way, Piercy demonstrates how the relationship between women and technology is shaped by the ideologies inscribed into these technologies by the socio-political conditions into which they were developed. Chapter three explores the techno-scientific manipulation of the female body through uninformed, non-consensual application of the RTs by self-serving businessmen and scientists in *The Cloning of Joanna May*. Weldon subverts the potential abuse of RTs with a feminist spin to empower her protagonist into re-creating her identity through female solidarity. This study aims to elucidate the intricacies of RTs through women's embodied experience presented in the novels.

Keywords: Reproduction, Motherhood, Reproductive Technologies, Female Body and Technology, Nature, Ecofeminisim, Xenofeminism, Family Structure, Woman, Female Body, Dystopia, Utopia.