

Science, Gender and History

Science, Gender and History:
The Fantastic in Mary Shelley
and Margaret Atwood

By

Suparna Banerjee

**CAMBRIDGE
SCHOLARS**

P U B L I S H I N G

Science, Gender and History:
The Fantastic in Mary Shelley and Margaret Atwood,
by Suparna Banerjee

This book first published 2014

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library

Copyright © 2014 by Suparna Banerjee

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-4438-6220-7, ISBN (13): 978-1-4438-6220-2

For Ma and Bapi
and
To my grandparents

CONTENTS

Acknowledgements	ix
Introduction	1
Chapter One.....	11
<i>Frankenstein</i> : Radical Science, Nature and Culture	
Re-framing ‘the Science Question’ in <i>Frankenstein</i>	
Rebellion, Revolution and <i>Frankenstein</i>	
Chapter Two	31
<i>The Last Man</i> : Apocalyptic Speculation beyond Autobiography	
Re-reading Gender in <i>The Last Man</i>	
<i>The Last Man</i> and (Shelley’s) Art	
Politics, History and (Anti-)Colonialism	
Chapter Three	55
<i>The Handmaid’s Tale</i> : Dystopian Speculation in the Feminine	
<i>Frankenstein</i> and <i>The Handmaid’s Tale</i> : Gothic (Pro-)creation	
and Normative Gender	
Reading the Past, Making the Future: History-Making and Sexual-	
Politics	
<i>The Handmaid’s Tale</i> and Feminism: Alienation versus Involvement	
The ‘Romance’ Theme	
The Narrative: Tyranny, Text and Resistance	
Chapter Four	83
‘Open Markets, Closed Minds’: Apocalyptic Speculation in <i>Oryx</i>	
and <i>Crake</i>	
Biotechnology, Eugenics and the Apocalypse	
(Contemporary) Geo-politics and <i>Oryx and Crake</i>	
Dystopian Mindscapes	
Gender, and Beyond	
The Last Man and the New Humans	

Conclusion.....	129
Notes	
Notes to Introduction	137
Notes to Chapter One.....	138
Notes to Chapter Two	140
Notes to Chapter Three	141
Notes to Chapter Four.....	142
Note to Conclusion	143
Works Cited.....	145
Index.....	153

ACKNOWLEDGEMENTS

The distinguished contemporary philosopher Martha Nussbaum observed how in an uncertain world each one of us has to depend inevitably on many others for our survival and for any personal achievement any of us is able to make.* Here I try to specify who such others have been in my case, without whose variously rendered help this book would not have been possible. Foremost among these people are my parents, Hena and Shyama Prasad Banerjee—my beloved Ma and Bapi. Their unstinted material and emotional support sustained me through the years over which I researched for and wrote this book, balancing, after the initial period, a teaching job and the research and then the book with other writings and other responsibilities. My father rendered sundry practical help, suffered my anxieties equally with me, dreamt my dream, and kept up my morale with equal parts love and understanding. This book is more his than mine. And Ma has always been there for me—with her quiet affection and her energizing belief in my abilities.

From the Department of Humanities and Social Sciences, Indian Institute of Technology, Bombay—where the earliest outlines of this book emerged—I thank Neelima Talwar for suggesting that I explore Mary Shelley’s and Margaret Atwood’s fiction for my doctoral work. The abundant scholarly liberty she thereafter allowed me proved vital to the way the specific thematic shaped up and to the development of the project.

During the final stages of my doctoral research and thereafter, while revising my thesis for publication, I contacted senior academics around the world for both material help and critical advice. Thus, Johanna Smith sent me a copy of her excellent edition of *Frankenstein* that gave me access to some insightful contemporary critiques of the novel. I am thankful to her for this. Other specialists who shared time, material and/or expertise include Sharon Wilson (University of Northern Colorado), Paul Cantor (University of Virginia), Veronica Hollinger (Trent University), Constance Walker (Carleton College), and Hilde Staels (University of Leuven). I am indebted to all of them. Morton Paley (University of California at Berkeley), whom I consulted initially on a point related to Shelley’s

* *Take My Advice: Letters to the Next Generation from People who Know a Thing or Two*. Ed. James L. Harmon. New York: Simon and Schuster, 2002. 176.

critique of Romanticism, fielded with indulgent kindness the many queries I put to him while preparing the final draft of the manuscript for publication. I am grateful to him.

I thank the two anonymous experts who read for *Women's Studies* my analysis of Shelley's engagement with science in *Frankenstein*. Their suggestions helped me sharpen the argument in this part of my manuscript—a section that takes the dialogue around the science question in *Frankenstein* beyond a strong critical consensus. Likewise, I am thankful to the reviewers at *Journal of International Women's Studies*. Their comments on my analysis of Atwood's involvement with gender in *Oryx and Crake* led me to incorporate into this part of my work a fresh argument about how Atwood's critique of motherhood advances a subversive and socially salutary model of 'feminist mothering'.

I thank the 'Taylor and Francis' group for granting me permission to re-publish as parts of this book the two articles I wrote for their journals. The section on gender in *The Last Man*—section 1, chapter 2 of this book—was first published in *English Studies* as "Beyond Biography: Re-reading Gender in Mary Shelley's *The Last Man*". And my article entitled "Home is where Mamma is: Re-framing the Science Question in *Frankenstein*", which now forms the first section of chapter 1 of this book, was earlier published in *Women's Studies*. I also thank Diana Fox, founder-editor of *Journal of International Women's Studies*, for allowing me to re-publish the article that I wrote for her journal. "Towards Feminist Mothering: Oppositional Maternal Practice in Margaret Atwood's *Oryx and Crake*" now forms the most part of chapter 4, section 4 of this book.

A considerable corpus of work germinal to the development of this book was done during my time at IIT Bombay. Over this period I came into contact with many fellow researchers and students, within the Humanities department and outside of it, whose help and friendship proved invaluable to my survival. The ones I would especially like to thank are Omkumar Krishnan, Sindhu Swaminathan, Netra Churi, Sunita Udgikar, Padmaja, Samit Roy and Vivek Kaul.

I am much indebted also to many other people, working at different corners of the Institute and the campus, like the Office of the Humanities department, the Central Library and the Academic Office, Hostel-11, the Hostel-8 'Communication Center', the Guesthouse, the Employees' Cooperative Store, and the Nestle' outlet. These wonderful people not only rendered practical help, big and small, but also provided me with an ambience of human warmth throughout the span of my association with the Institute. I shall always remember them with fondness and gratitude.

I am happy that my work found its home at Cambridge Scholars Publishing and am thankful to the team that managed the project with enthusiasm and diligent care. In this group, among others, are Samuel Baker, Carol Koulikourdi, Elfreda Crehan, and, above all, Amanda Miller, whose patience, friendliness and zeal make her an author's delight.

My cosy little den in Durgapur deserves to be mentioned as the place where I did a large part of the work that has led to this book. Without those 700 square feet of space in the city that has formed me I would have been lost.

I wish my grandfathers, Debendra Nath Banerjee and Kalyani Prasad Chatterjee, were alive today: they were the first to note and encourage my love of the English language and this book would have made them happy. They, along with my grandmothers, and my grandaunt and granduncle on my mother's side lavished on me in my growing years a sort of love that had been the best and the most nurturing. Over the years, the cherished memory of that love has kept my soul nourished.

INTRODUCTION

This book aims to make a thematically grounded study of a selection of novels by two apparently diverse authors, Mary Shelley (1797–1851) and Margaret Atwood (1939–). Its primary thrust is on the authors' use of fantastic/speculative fiction to critique socio-political proclivities and cultural constructions from feminine perspectives—from vantage-points of two historically situated female individuals inhabiting the shifting locus of cultural dynamics called 'woman'. While both writers have been incorporated into the discourses of feminist literary criticism there has not been any substantial critical endeavour so far to study their fiction in comparative conjunction.¹ I propose to do this by examining the interfaces among science, gender and history(-making) in four of their novels: *Frankenstein, or the Modern Prometheus* (1818) and *The Last Man* (1826) by Shelley, and *The Handmaid's Tale* (1985) and *Oryx and Crake* (2003) by Atwood. These four texts, which have been described variously as gothic fantasy, apocalyptic fiction, dystopia and speculative fiction, combine meaningful (futuristic) speculation with the quality of 'the fantastic'. Germinal situations or ideas that are non-mimetic are commingled in them with speculation that has a cognitive basis in and critical link with ambient reality. My interest in the fantastic as a mode of writing that opens up the potential of critiquing or subverting normative structures of thought and praxes has been a major criterion for my selection of the texts.²

Between Shelley and Atwood, as this book intends to bring out, there is a congruence of cultural milieux that results in a congruence of the world views they project in their speculative/fantastic fiction. The early nineteenth century was—as our times have been—a period of great cultural innovations and churnings marked especially by the ascendance of scientific rationality and (capitalistic) imperialism. One main concern of this book, accordingly, is to investigate the ways in which Shelley and Atwood use themes and ideas deriving from science to critique the ideologies and praxes of science and their socio-cultural manifestations. The other major focus will be on exploring how the texts negotiate the changing global politico-economic realities in the context of the shifting patterns of (Western) imperialism and how the category of gender relates to these negotiations. Shelley, a British writer situated at a cultural

moment that was the high noon of British colonialism, and Atwood, an author placed in the contemporary context of the imperialism of global capital, seem to be especially amenable to such an approach.

Shelley wrote *Frankenstein* at a time when there was a lot of cultural interest in science and its potentialities. Scientist-thinkers like William Lawrence, Humphrey Davy, Erasmus Darwin and others were propounding revolutionary theories about the origin and the “principle of life” while Luigi Galvani kindled enormous popular interest in electricity and its powers (Shelley, “Introduction” 171).³ The hopes generated by science made it seem as if human perfection, and even immortality, could be achieved in the long run. On the other hand, theories about evolution, which were then shaping up, impelled new debates about human nature that dovetailed with Rousseauistic discourses on the nature-culture dialectic. Intellectual circles, such as that formed by Percy Shelley, Mary Shelley and their friends like Lord Byron and John Polidori, were animated by debates on these new scientific-philosophical topics.⁴ More than a century later, Atwood writes her speculative novels at a time when scientific advancements, especially in biotechnology and cybernetics, have started to redefine all aspects of material culture and even look set to alter the very meaning of being human. Significantly, at both times, science assumes an aspect that is at once promising and threatening, exciting and deeply unsettling.

The early nineteenth century was also a time when British colonialism was at its zenith. Commercial and imperial ambitions on the part of English ‘heroes’, like Raymond in *The Last Man*, were defining much of public life in England and its colonies and were also affecting familial domesticity at home. Shelley was among the first English writers to have taken cognizance of the political and social impact of colonialism and the spread of international trade that attended it. Already in *Frankenstein* we find an incipient critique of these elements; in *The Last Man* the critique deepens and matures even as Shelley recognizes international commerce and colonialism as a composite evil, anticipating “the problems European imperialism was to create in the modern world” (Cantor, “The Apocalypse” 195). In our times capitalistic neo-imperialism ‘globalizes’ the world, making nation states increasingly irrelevant, and promotes ultra-utilitarian materialism as the universal creed while deepening the material differences among nations and among ‘classes’. Atwood is one of the major writers to have projected this milieu in her speculative novels, especially in *Oryx and Crake* and its sequel *The Year of the Flood* (2009). In Atwood, moreover, the link between neo-imperial commerce and technoscience has been detected and dramatized—a nexus which was not

yet apparent in Shelley's time, when science was purer in its motives.

From the gender point of view, the late eighteenth century was the time when the concept of women's rights emerged through the writings and example of Shelley's mother Mary Wollstonecraft, who in *A Vindication of the Rights of Woman* (1790) argued for fundamental changes in society's perception of women and their function and potential. True to this legacy, Shelley's novels, published between 1818 and 1837, reflect her abiding interest in gendered existence and gender relations—themes she ponders in the context of history and/or the nuclear family. In the late twentieth century 'feminism' rose to be one of the most important political and cultural movements in the West (and elsewhere)—securing far-reaching consequences for women's personhood—and then got beleaguered by complacency on the part of women and by various forms of masculinist backlash. Especially, the rise of religious fundamentalism emerged as a potent threat to women's emancipation—a circumstance dramatized in Atwood's *The Handmaid's Tale*. Indeed, Atwood has been a major commentator on sexual politics and feminism in our times, from *Edible Woman* (1969), through *Surfacing* (1974) and *Bodily Harm* (1981), to *The Handmaid's Tale* and beyond. In all, therefore, the fiction of Shelley and Atwood—both major and popular writers of their respective times—seems to form a suitable framework for a historically situated analysis of the dialectic of science and gender from a feminist perspective.

Mine is a feminist approach that attends to the specificities of the respective historico-cultural milieux of the two authors and their texts while situating their work in the context of inter-gender dialectic through history. For I understand gender dynamics as cultural praxes that are changing and historically persistent at the same time—ever changing in their specificities yet always determined by a pattern of relative stability in the way patriarchy accords a "higher intrinsic human value to men than to women" (Rich ix). I draw mostly on feminist theory and criticism that attend to the culturally contingent nature of gender and gender relations rather than on the psycholinguistically inflected analyses of gender that, although insightful, tend toward a biológico-linguistic determinism that I like to avoid.

Frankenstein, Shelley's fantasy of a 'mad scientist' infusing life into an assemblage of cadaver parts and then disowning the resulting 'monster', is a prescient projection of both the hopes and the fears technology continues to inspire. Shelley's engagement with the radical science of her times enables her to institute a critique of the ideology and praxes of science. *Frankenstein's* failure to give his Creature a tolerable life results from his lack of pragmatism and his neglect of the importance

of familial and social assimilation—his exclusive reliance on scientific rationality—as much as it does from his lack of affective sympathy with the Creature.

By the calamitous aftermath of Frankenstein's extra-cultural creation Shelley underlines the fallacy implicit in the ideology of modern science as conceptualized in the seventeenth century, an ideology that institutionalizes the hierarchical and gendered schism between 'nature' and 'culture' foundational to patriarchy. The conception of 'nature' as a fertile and passive (female) entity outside of and subordinate to the human (male) realm of 'culture' is characteristic of the thought paradigm underlying the seventeenth-century scientific revolution pioneered by Francis Bacon and Roger Boyle—the paradigm that has characterized patriarchal thinking through history and across cultures (Keller; Ortner).⁵ This stratified and gendered perception of 'man' and 'nature'—encrypting in science the sexism of patriarchy—is at the root of the ideal of scientific 'objectivity' or detachment, an ideal that tends to promote an amoral science divorced from affective and ethical concerns. Shelley's fictional presentation of the human failure of scientific rationality is, basically, a critique of the positioning of the natural and the cultural as hierarchical and gendered absolutes in both the discourses and the praxes of patriarchal societies.

Through her criticism of Frankenstein's detached and irresponsible science—embodied in the disastrous consequences of his creation both for the Creature and for others—Shelley heralds in English literature the theme of scientific ethics. This is an issue that has assumed much importance in our times, marked as they are with radical developments in biotechnology, like cloning, DNA mapping and genetic modification of species. Hence, scientific ethics is a major theme that Atwood develops in *Oryx and Crake*, which dramatizes the human and environmental consequences of the reckless operations of technoscience dancing to the tune of global capital.

Frankenstein, showing as it does the technological creation of a human-animal hybrid, could also be seen as the first expression in English literature of what has been called the 'posthuman'—the state of being that is created through technology-mediated inter-penetrations between humans and 'Others', like machines and animals. However, although the Creature in *Frankenstein* could be called the first posthuman entity or 'cyborg' in English literature, Shelley does not enter overtly into the problematic of ontological border-crossings or into the issue of technology altering human nature. She is concerned rather with probing the epistemological issues associated with the dialectic of the natural and the

cultural. By emphasizing their mutual contingencies Shelley undercuts the discursive polarization itself of ‘nature’ and ‘culture’—of the ‘feminine’ and the ‘masculine’—that is foundational to Western Modernity and to patriarchal thinking itself (Latour; Ortner).⁶ *Frankenstein* is among the earliest critiques of this scientific world-view and, therefore, also among the earliest English texts to engage with what Sandra Harding was to call “the science question in feminism”.

The meaning of the human gets interrogated in Atwood also as artificially mutated human-animal hybrids (‘Crakers’) interact with the lone surviving human being (‘Snowman’) in the apocalyptic novel *Oryx and Crake*. Through these interactions, as we shall see in Chapter 4, Atwood recreates a *Frankenstein*-style creature-creator dialectic while also ironically reversing it to dramatize man’s abjection in the wake of his own creation. By showing the laboratory-made humanoids develop elements of human complexity despite their genetic programming—as also by bringing out their difference from the last ‘normal’ human being—Atwood implicitly contends that human nature cannot be mastered by technology. Like Shelley, Atwood emphasizes the complex and culturally contingent nature of being human and denounces the reductive, positivistic ethos of a technoscience that envisions perfection in programmed simplicity.

Both Shelley and Atwood, thus, are hesitant in adopting science as the discourse of Progress. If Shelley adumbrates the negative potentiality of trusting human destiny to scientific rationality alone, Atwood, our contemporary, makes explicit much of the human impact of the ideology of scientism. The eighteenth-century faith in Reason, critiqued by Shelley in both *Frankenstein* and *The Last Man*, hardens into the ideology of scientism in Atwood’s dystopian near-future (*Oryx and Crake*), which is a reflection of our own times. Under the influence of this ideology every human phenomenon is seen as a function of ‘natural’ factors that can be understood in terms of science; human capacities and faculties not amenable to rationality are ignored, and non-utilitarian discursive fields, like those of the liberal arts, are neglected and undervalued. Pervasive scientism, working in tandem with advanced global capitalism, leads to the apocalypse in *Oryx and Crake*.

Shelley’s critique, through *Frankenstein*’s career, of the (masculine) Romantic ethos of ego-centric transcendence gestures towards the family as an alternative locus of individual fulfilment and, by extension, as the model for the welfare of (national) communities (Mellor, *Mary Shelley* 115–26).⁷ However, through her championing of a *gender equal* family Shelley makes an implicit proto-feminist demand for men to commit to the familial equally with women. Indeed, the critique in *Frankenstein* of the

sexist and stratified binary of 'culture' and 'nature' endemic to modern science results in an implicit denunciation of the separate spheres ideology, whereby woman and the 'private' realm of familial immanence are identified as separate and subordinate to man and his 'public' sphere of cultural transcendence. *Frankenstein* shows how this gendered dichotomy of spheres of activity enervates women's personhood and how women's own internalization of societal gender norms impairs their lives. And, as part of her critique of women's obligatory absorption into the relational and the familial, Shelley makes an incipient criticism of the patriarchal ideology of motherhood that demands of and prepares women for inordinate selflessness and nurture.⁸

The Last Man continues to develop Shelley's perception of the impact of gender on women's lives both within and outside of the family by showing how gender-based limitations and compulsions over-determine women's lives. Through the character of Idris, the novel presents a case against women's obsessive absorption in motherhood, taking forward what was begun in *Frankenstein*. The later novel, moreover, adds a new dimension to Shelley's critique of gender: women's dependence on inter-gender 'love' and the primacy they (are constrained to) accord to it are indicted in *The Last Man* through the lives of Perdita and Evadne. The novel is an examination of the ideology of heterosexual 'love' that reproduces in the erotics of personal lives the subordinate and inferior position women are implicitly or explicitly given in other areas of patriarchal cultures. Ultimately, *The Last Man* also, like *Frankenstein*, is a denunciation of the woman/man-private/public schism that Shelley perceives as one of the chief causes of women's immoderate absorption in the relational and the domestic.

The equivalence of the personal and the political in patriarchy is made manifest also in Atwood's *The Handmaid's Tale*, a novel which, like *Frankenstein*, is premised on a speculative interest in the theme of the creation of the human species. The gothic ambience in which the drama of obsessive procreation unfolds in *The Handmaid's Tale* resembles the atmosphere of gothic birthing palpable in Shelley's presentation of Victor creating his Creature in *Frankenstein* (Moers 216--22). Written partly as a response to the right-wing reaction against feminism and to the growth of Christian fundamentalism in the U.S.A of the nineteen eighties, *The Handmaid's Tale* shows a theocratic state machinery forcefully co-opting women as captive child-bearers into polygamous family-like structures headed by males of the elite classes.⁹

In this way, the sexual-politics of women's subordination in patriarchal societies at the microcosmic level of the familial and the inter-personal is

actually subsumed in *The Handmaid's Tale* within the macrocosmic level of state-organization. Woman's 'power' of reproduction is here woman's greatest weakness, the cause of her ultimate oppression and the destruction of her personhood. The containment of womanhood within exaggerated gender roles that Shelley implicitly criticizes in her texts, especially in *Frankenstein*, is given a dramatic manifestation in *The Handmaid's Tale*, as will be shown in Chapter 3. Particularly, Atwood satirizes the Rightist fundamentalist attitudes to motherhood through her presentation of a dystopian society that reduces women to mere breeders in the gothic set-up of a theocratic state revolving around reproduction.

Atwood, however, does not blame patriarchy alone. *The Handmaid's Tale* shows up women's willful blindness to the sexual-political signifiers in their personal lives, an attitude resulting from an exclusive commitment to their personal survival in the heterosexual polity of patriarchy and the concomitant disinterest in collective efforts to improve their status in society. This apolitical mentality—and the relative lack of trust and sisterhood among women that goes alongside—are related in *The Handmaid's Tale* to their dependence on heterosexual 'love' or 'romance', a dependence that ensures their subordination by making passivity and object-status desirable to them. Atwood probes the relation of 'love' to women's agency, hinting at the need for them to seek out patterns of heterosexual relationships that are more liberating and more equitable than those provided by the traditional grammar of 'romantic' love.

In *The Handmaid's Tale* Atwood denounces patriarchal misogyny and essentialist notions about womanhood; yet, she also emphasizes the fact that patriarchal power politics affects the individual's personhood adversely, irrespective of gender. She therefore advocates mutual understanding and cooperation between the sexes even as she underlines the importance of solidarity among women. Indeed, Atwood's critique of women's complicity with patriarchal power takes note of the way a certain alienating tendency within feminism itself plays into the hands of patriarchal fundamentalism by insisting on the separation of 'women's culture' from the mainstream of patriarchal societies and from public politics.¹⁰

Although gender is not apparently Atwood's major theme in *Oryx and Crake*, the novel does engage with aspects of patriarchal gender dynamics, hinting at inequities, the implications of which are the more damaging because of their situation in a scientifically super-sophisticated future society. Particularly, Atwood engages with the ideology of femininity, inter-gender 'love' and its relation to women's personhood and, above all, the stifling impact on women of the cultural institution of motherhood.

Oryx, lover to the protagonist Jimmy/Snowman, is the figure through which is brought out the persistence of the inequitable patterns of gender relations characteristic of romantic 'love' and the damaging impact such a 'love' may have on a woman's life and agency. Also, through Oryx and Ramona, Jimmy's stepmother, Atwood illustrates the disharmonious nature of inter-gender interactions whereby women are required to play by the rules of the sexist and inauthentic ideal of 'femininity'. Indeed, in *Oryx and Crake*—as in *Frankenstein*—cardinal aspects of patriarchal womanhood are shown up as masquerade, and this is most palpable in Atwood's critique of normative motherhood brought out through the relational dynamics of Jimmy and her mother Sharon. This 'imperfect' mother of the protagonist is the figure through which Atwood critiques the new-Right ideology of motherhood and presents an illustration of what has been called the subversive practice of 'feminist mothering'.¹¹

Sharon's career in the novel, seen along with her upbringing of her son, exemplifies a kind of oppositional maternal practice that combines political engagement with mothering, nurture with rebellion, and liberates the mother's agency, both personal and societal, from the confines of prescriptive motherhood. In the character of Jimmy/Snowman, the product of Sharon's mothering, moreover, Atwood presents a kind of sensibility that hints at the possibility of a movement beyond normative gender. The culturally salutary integration of the 'masculine' and the 'feminine'—the rational and the affective—is held out in *Oryx and Crake* as an ideal, and it is indicated that a non-sexist oppositional mothering could contribute significantly to realizing that ideal in the children we bring up to be the men of the future.¹²

As observed earlier, the futuristic speculations of both Shelley and Atwood engage with the socio-cultural impact not only of gender disparities but also of colonialism and neo-imperialism. Both *Frankenstein* and *The Last Man* recognize that the (masculine) urge toward self-assertive achievement can be as deleterious to communities as to the nuclear family; and this insight is brought out partly through Shelley's condemnation of colonialism, which she perceives as a function of male ambitions at both the individual and the national levels. At a time when England was riding high on the wave of its colonial exploits around the world and colonialism was a vital part of its cultural identity Shelley's *Frankenstein* recognizes the impulse to dominate and exploit other peoples as part of the general malaise that inheres in self-centred (male) aspirations.

The Last Man carries forward this considered anti-colonialism. Here Raymond—prototype of England's political 'heroes'—is killed in the

wake of his active engagement in Greece's war against the Turks, a war fundamentally about the West's will to subjugate the East. And the ultimate signifier of Shelley's condemnation of colonialism in this novel is the 'Plague' itself. Originating in the East and gradually destroying the world, wrecking families, cities, and nations, it is a symbolic *nemesis* visited upon the colonizing West, which socio-politically defines itself by annexing and dominating its racial/geopolitical 'Others'. By exposing the insularity and national/racial pride inherent in the world-view of England's heroes the novel brings out Shelley's critique of the Anglocentric imperial mindset. Shelley's familial ethic, defined by temperance and commitment toward the collective, translates here, as in *Frankenstein*, into a political ideology that would eschew both the sanguinary, anarchic potential of revolutionary movements and the exploitative and destructive nature of colonialism.

If Shelley was concerned with the disruptive potentiality of colonialism—"the conquest and direct control of other people's land"—Atwood, our contemporary, engages with the impact of "the globalization of the capitalistic mode of production" that defines (Western) imperialism today (Williams and Chrisman 2). It is the imperial power of technology-driven global capitalism that is implicated as the prime agent bringing about the apocalypse depicted in *Oryx and Crake*. Atwood's concern with environmental degradation, apparent in *Surfacing* and in *The Handmaid's Tale*, resurfaces here. A highly materialistic, dystopian society of the late twenty-first century USA, Atwood shows, brings forth a catastrophe whereby nature is warped into malevolence and humankind is wiped out by a plague—like in Shelley's *The Last Man*. Unlike in *The Last Man*, however, the plague in *Oryx and Crake* is unleashed by a scientist working to bioengineer the human species according to the crassly materialistic standards of the people, whose desires are fuelled by the greed of the almighty global biotechnology corporations. If Shelley's plague in *The Last Man* is a symbolic revenge, as it were, of the East against the colonizing West, the virus in *Oryx and Crake* is the scourge of neo-imperialism coming back to destroy the imperializing power of global capital rooted in Western economies.

The futuristic visions of both Shelley and Atwood negate the conception of history as "change-through-time heading in the direction of perfection"—the idea of history as Progress (Atwood, "Writing Utopia 87). *The Last Man*, moreover, highlights the masculinist/public bias inherent in mainstream history-making by presenting a personal narrative of loss and loneliness as the final testament of human history. Atwood also, in the *The Handmaid's Tale*, shows up the patriarchal bias of

institutional historiography even as she relates our present values to our readings of the past and our collective construction of the future. Her critique of women's complacency and political non-involvement is made edgier by her emphasis on the responsibility of collective history-making on the one hand and the moral obligation to bear witness against injustice on the other.

In both Shelley and Atwood Art, and specifically literature, emerges as a theme integral to their futuristic visions. While literature and the act of composition are a solace to the protagonist faced with loneliness and grief in *The Last Man* Art generally is conceived in this novel as the embodiment of the best and the finest in humanity—an antithesis to the vulgarity generated in the aftermath of the French Revolution on the one hand and at the advent of imperialist commerce on the other. In Atwood's *Oryx and Crake*, likewise, Art is held up as an implied ideal against the philistinism and the moral-aesthetic apathy generated by capitalistic consumerism and the ethos of technoscience. In *The Handmaid's Tale* the narrative itself is implicated in the protagonist's struggle against oppression and loneliness even as it emerges as a means to bear witness against societal injustice and as an instrument to create bonds across generations among fellow victims.

The overall insight provided by this study of Shelley and Atwood consists in a shared perception of the values of technoscience and neo-imperial capitalism as being at odds with personal liberty and individuality, especially for women, and with familial and communal well-being, global peace and environmental stability. Both authors understand the human as a function of the interplay of 'nature' and 'culture', the rational and the affective, the 'masculine' and the 'feminine'. It is posited that for human specificity to be retained reason or rationalistic intelligence on the one hand and feelings and the imagination on the other are to be equally cultivated and integrated. In this context, Art, especially literature, becomes important as both the epitome of and the means to revive the wholeness of the human. Man–woman harmony is upheld as the ideal even as women are alerted to the persistence of patriarchal misogyny and to the politics of the personal. Sharing of the values of moderation, peace and nurture equally among men and women, both the authors imply, needs to be achieved.

CHAPTER ONE

FRANKENSTEIN: RADICAL SCIENCE, NATURE AND CULTURE

As the staggering corpus of critical literature that has grown around *Frankenstein* (1818) shows, the novel engages with myriad issues of philosophical, political, psychological and socio-cultural import. These issues belong to a variety of thematic rubrics, including those of Shelley's perceived critique of (radical) science, the dialectic of 'nature' and 'nurture', the politics of social reformation in the context of the French Revolution, and the nature of being and 'Otherness'. As has been argued by Anne K. Mellor in *Mary Shelley*, the novel embodies the author's critique of elements of a (Romantic) masculinity that tends to consummate itself through insensitive egoism and idealism.¹ Positioning herself against this ethos, Shelley endorses an alternative way to personal fulfilment and social melioration through interdependence and harmony in familial and communal lives. However, *Frankenstein* also hints at an incipient criticism of the gender-biases Shelley felt were intrinsic to the nineteenth-century British nuclear family even as it reveals the tensions inherent to (her) womanhood.² Also, being among the earliest literary works in English to thematically involve the creation of the species, *Frankenstein* engages with the subject of procreation in patriarchy. As argued by critics, most notably by Ellen Moers, the anxieties and tensions incident to Shelley's experiences of motherhood shape her 'hideous progeny' in important ways.³

The present chapter will be concerned, primarily, with exploring Shelley's treatment of the dialectic of 'nature' and 'culture' in the context of radical science. Hesitating to see *Frankenstein's* science as a positive attempt to usurp female procreative power, the argument here intends to establish Shelley's critique of the conceptual and discursive schism between 'culture' and 'nature'—a schism that underlies the tension between transcendence and immanence, the egoistic and the familial, and ultimately, the 'masculine' and the 'feminine' in patriarchy.

This hierarchical and gendered schism is fundamental to patriarchal thought—as Simone de Beauvoir and Sherry B. Ortner shows. This, as we shall see, is also the thought paradigm that actuates modern science as it was conceptualized in the seventeenth century. *Frankenstein*, while not being a simplistic warning against the excesses of science, critiques this sexist and reductive ideology of modern science and falsifies the stratified dualism of ‘nature’ and ‘culture’ that is foundational to patriarchy and inimical to the wholeness of the human. This critique, realized in a context of speculation based on the radical science of Shelley’s times, denounces the reductionism of scientific rationality while articulating a feminist apprehension of the public/private (man/woman) dichotomy that constitutes the social expression of the sexism of science.

The thematic richness of *Frankenstein* implicates also, as we noted at the beginning, the issue of anti-authoritarian rebellion and political idealism. Written in the shadow of the French Revolution, Shelley’s legendary first novel evokes on the one hand the idealism and the spirit of rebellion that led to the Revolution and, on the other, the mayhem, the anarchy and the reversal of hopes it left in its wake. Shelley’s engagement with this thematic takes in an incipient critique of colonialism—an evil she views as an integral part of the masculine urge toward ego-centric achievement which, to her, is the chief enemy of familial and communal well-being. The anti-colonial element of Shelley’s political and social critique, however, deepens in her later novels—in *Valperga* (1823), for example, and especially in *The Last Man*, which we shall study in the next chapter.

Re-framing ‘the Science Question’ in *Frankenstein*

Frankenstein started receiving serious attention from scholars and critics in the late 1970s; over the decades a critical consensus seems to have formed about the science in the novel vis-à-vis the discursive and cultural category of gender. Critics have argued it with different emphases and from various critical vantage points but, in most analyses, the crux of this interpretive consensus has been to view Frankenstein’s science as a negative manipulation of nature, an attempt, specifically, to usurp woman’s creative power through scientific technology.⁴

Although there is much to be said for this view, it represents only one way of looking at the science in the novel, a perspective that sees woman’s reproductive function *only* as power and equates reproductive technologies to male attempts to undermine or usurp that power. This is also partly a function of what Maurice Hindle identifies as “the tendency to read

today's concerns back into the novel, to take its 'message' about 'obsessive scientific pursuit' for granted as a prefiguring of science's often dangerous advances in the twentieth century" (29–30).⁵ While it is culturally rewarding to read past texts in the light of present concerns I pursue a somewhat different line here. Instead of reading *Frankenstein* as a critique of technological violation of nature, I see it as a subversion of the thematic itself of nature-versus-culture and as a critique of both the Baconian conception of modern science—a conception symptomatic of this hierarchical opposition in cultural thinking—and the gender divisions created and sustained by this discursive and attitudinal schism.

The theoretical base of this argument is provided by Ortner's analysis of the universal cultural devaluation of woman in terms of the conceptual categories of 'nature' and 'culture'. Ortner's analysis, in turn, builds on de Beauvoir's diagnosis of 'the woman problem' as being the result of socio-cultural factors arising from woman's procreative function. Accordingly, my position on the science question in *Frankenstein* is in non-alignment with the critical consensus that sees woman's reproductive function purely as her cultural power.

Some feminist analyses of *Frankenstein* have dwelt on Shelley's critique of the destruction of the familial by the workings of (male) Romantic egoism while some others have emphasized how it inscribes "the unresolvable contradictions in being female" in patriarchy (Mellor, *Mary Shelley* 115–26; Johnson, "My Monster" 250). I perceive both these aspects of the novel as functions of Shelley's critical engagement with the universal cultural ideology that defines *man* as an autonomous being separate from and in control of his natural environment—an ideology replicated in the paradigm of modern science through its insistence on 'objectivity' and 'mastery' of nature and the natural, to which realm woman is perceived to be closer than man.

I define this ideology as a universal one rather than as a function of the historically specific moment of Enlightenment anthropocentrism (Shelley's intellectual heritage) for I understand the concepts of 'nature' and 'culture' in the philosophical-anthropological senses in which Ortner defines them. Distinguishing 'nature' and 'culture' as "conceptual categories," Ortner defines "culture" as the composite of the processes of "generating and sustaining meaningful forms . . . by means of which humanity transcends the givens of natural existence, bends them to its purposes, controls them to its interest". 'Culture' is thus "broadly equated with human consciousness, or with the products of human consciousness (i.e., systems of thought and technology), by means of which humanity attempts to assert control over nature" (72). Women's relative confinement in and

identification with the realms of the natural and the familial—consequent upon her natural reproductive function and her culturally imposed role of sole/primary care-giver to the child—is thus a function of this universal ideology of defining man in terms of his opposition to and mastery of nature (Ortner 76–83).

Modern science, as conceptualized in seventeenth-century Europe, sharpens this schism basic to cultural thinking as has been shown by feminist theoreticians of the philosophy and sociology of science, like Carolyn Merchant, Evelyn Fox Keller, and Brian Easlea. Nature, in this ideology of science, is conceived as a female *thing* to be possessed and controlled by man, whose affective detachment from his *object* effects a divorce between the rational-material ('masculine') and the affective-ethical ('feminine') categories of experience and values.

That *Frankenstein* recognizes a gender-based division of cultural functions has been observed by Kate Ellis ("Monsters in the Garden") and by Jean Hall, both of whom relate this aspect of the novel to Shelley's critique of domestic affection in the context of the (bourgeois) family. Mellor too connects the novel's representation of the gendered domains of activity to Shelley's critique of the nineteenth century bourgeois family (*Mary Shelley* 214–15). I see it neither as the result of a specifically bourgeois family context nor *merely* as part of Shelley's critique of gender-bias in the familial structure itself.⁶ Rather, I read in *Frankenstein* Shelley's response to the deep-rooted universal cultural ideology that defines man in terms of his transcendence of nature and the natural, with which woman is more closely identified than man.

In order to develop this thesis I shall first put forward the specifics of my perspective on the issue of Frankenstein's usurpation of female 'power'. Frankenstein's creation is not cloning-style unisexual propagation. Although he dreams of fathering a race, his project primarily involves "bestow(ing) animation upon lifeless matter," not creating a new being of his biological self: he does not propagate himself through his Creature, except, perhaps, as an embodiment of his desires. And his ultimate goal, as he tells us, is to be able to "*renew* life where death (has) apparently devoted the body to corruption" (32; emphasis added). The text does not seem to present Frankenstein's scientific project as that of usurping the reproductive power of the female: we have no evidence that when he dreams of being the creator of a superior race Frankenstein means that it would be a unisex population. Indeed, in that case, he would have equipped his Creature to reproduce by himself. He does not do so, and the Creature begs his creator for a female companion with whom he can share a normal sexual and affective existence.

It is only after being horrified by the destructive acts and the terrible appearance of his Creature that Frankenstein comes to fear the propagation of its offspring and destroys the female monster. This act could be seen as betraying Frankenstein's fear of the female will and a free female sexuality, as has been done by Mellor and Mary Jacobus (Mellor, *Mary Shelley* 120; Jacobus, "Is there a Woman in this Text?" 100–04). But it still does not serve to characterize his original motive as that of usurping female procreative power. And if the novel shows the "systematic annihilation" of "the generative female", as Burton Hatlen observes, it also shows the annihilation of male figures—little William, Clerval, and the senior Frankenstein—through the same agency (295). Frankenstein's scientific project is more about the issue of science defining itself by objectifying and mastering nature than a male attack on the female's generative power.

The power to give birth, in the absence of the power *not* to give birth—in the absence, that is, of choice—can hardly be reckoned only as a prerogative, except in a rather asocial, metaphysical sense. Even after the advent of contraception the extent to which women can enjoy real choice in the exercise of their fecundity remains more or less contingent upon familial and social circumstances and the degree of personal autonomy they enjoy within these structures. The body politic of patriarchy, built around the institutions of marriage and the family, demands that woman serve man by giving him his progeny; this could and does result in her cultural power—the "dubious power of fecundity"—being also the cause of her cultural bondage and exploitation (de Beauvoir 160). As will be shown in Chapter 3, Atwood's dystopia *The Handmaid's Tale* is a trenchant projection of this double-bind for women.

Frankenstein does bring into play the theme of reproductive creation through images that evoke female reproductive experiences. The very young author of the novel was having a rather demanding, chaotic, unique experience with sexuality and motherhood around the period during which she conceived and wrote it—as Moers' biographical research shows us (220–222). In a creative response to that experience Shelley projects the physical and mental states associated with gestation and birthing on the scientist, who undergoes "midnight labours," faints, grows "pale" and "emaciated with confinement," and suffers from "nervous fever," anxiety and mental agitation (32, 37). By likening Frankenstein's absorption in his project to childbearing on the one hand and to the "doom" of obligatory "toil" and "slavery" on the other Shelley registers her reaction, as it were, to women's biological destiny, and gives a subversive thrust to the patriarchal stereotype of the happy mother-artist, proudly and blissfully

“occupied by (her) favourite employment” (33).⁷

Also, as Moers observes, the “motif of revulsion against newborn life” evoked by Frankenstein’s immediate rejection of his Creature is “within the normal range of (maternal) experience” and makes the book’s “most feminine” moment by projecting “the trauma of the after-birth” (218). Yet, in ideological terms, Frankenstein’s revulsion and rejection also set in motion his parental failure, his inability to nurture and acculturate his Creature. It is significant that Shelley introduces the theme of culpable parental irresponsibility in a way that evokes a new mother’s negative *post partum* experiences, which constitute an aspect of motherhood that is the most suppressed in cultural discourses. This association of what is most reprehensible about Frankenstein’s conduct with real female experience is symptomatic of the author’s ambivalence toward Frankenstein’s radical scientific project in particular and self-assertive ambition in general, a point to which we shall return.

When Frankenstein conceives his scientific project of creating a human being out of cadaver parts he, in his callous self-absorption, fails to visualize the practical consequences of such an extra-cultural creation. Indeed, he conceives his ambition “to give life to an animal as complex and wonderful as man” in the face of sobering facts: “The materials at present within my command hardly appeared adequate to so arduous an undertaking. But I doubted not that I should ultimately succeed” (31). Here what he expresses is not only his confidence in his own talents but also the practical and moral blindness that is the consequence of his self-absorption and the deficiency of theoretical reason.

While his persistence and scientific genius do actually enable him to produce a human creature, his real failure inheres in his inability to give that creature a human life. Even in the creation of the being the failure of theoretical, scientific reason is signaled tellingly by the grotesqueness of the Creature’s appearance which was no part of Frankenstein’s design. Despite choosing “beautiful” features for the Creature the final product of Frankenstein’s fanatic toil is horrid to look at (34). Given that this is the single most important thing about the Creature—the reason for his terrible rejection by human society—as well as the most crucial circumstance in the novel’s plot, this unintended result of Frankenstein’s technology could be taken as a measure of Shelley’s lack of faith in theoretical reason (as distinct from pragmatism and affective sensitivity) as the cornerstone of scientific speculation.⁸

Frankenstein greatly contributes to his Creature’s misery by making him into a being of gigantic proportions. Merely because he feels impeded by “the minuteness of the parts” of the human frame, he decides to make

his creature “eight feet in height, and proportionably large” (32). This betrays a criminal lack in him of the necessary awareness that what he is working on will be an autonomous being capable of human feelings, and that it will be his responsibility to give that being a tolerable existence in human society. Frankenstein’s exclusive focus on his project to bestow life on inanimate matter makes him blind to everything else, including the fact that the life he would create would only begin with the infusion of the “spark of being” into the assemblage of dead matter—that life is not one supreme moment but a process consisting in a “chain of events and existence” determined not by the manageable sureties of science but by the complex contingencies of nature-in-culture (34, 100).

Through the disastrous results of Frankenstein’s ambitious technological experiment Shelley makes the point that any attempt to treat the natural aspect of the human animal to the exclusion of the cultural is untenable, for it is through a constant interpenetration of the natural and the cultural that the human constitutes and expresses itself. Frankenstein’s failure inheres in his inability to provide his Creature with a cultural environment conducive to the growth of healthy emotions and in his failure to establish it in the network of relations—the “chain of existence and events”—that is the essence of the nature-culture continuum constituting human life (100). We may note here that “existence,” denoting the biological, is said to form a “chain”—not a graded binary opposition—with “events,” denoting the cultural. It is through a combination of a deficiency in the real-world perception that life unfolds in a cultural matrix and a lack of affective attachment to the being created that Frankenstein dooms his Creature to a miserable existence.

Frankenstein’s scientific ambition, although partly altruistic, is inspired in large measure by egoism. Recognizing the “variety of feelings that bore [him] onwards”, he muses on his ultimate wish to “renew life” in dead bodies even as he dreams of being “the first to break through” the “ideal bounds of nature” and of claiming complete “gratitude” of “a new species” (32). And the primary consequence of Frankenstein’s transgressive ambition is his alienation from the realm of the affective and the familial, and the destruction of his family itself. He is perceptive enough to point this out himself as he expresses his state of mind while he has been toiling at his project:

. . . but I could not tear my thoughts from my employment, loathsome in itself, but which had taken an irresistible hold of my imagination. I wished, as it were, to procrastinate all that related to my feelings of affection until the great object, which swallowed up every habit of nature, should be completed. (33)

In proposing the fulfilment afforded by familial mutuality as a salutary way of defining and realizing the self, Shelley advances Walton's career as an alternative to Frankenstein's. Although Walton sets out toward the North Pole on a quest to satisfy his imaginative drives, he is ultimately shown to be mindful of the welfare of his crew, and returns to England. And, unlike Frankenstein, he balances the claims of the self with those of relationships—as his frequent and affectionate letters to his sister show. His abandonment of his expedition—seen along with the fact that he is the ultimate survivor—serves to emphasize the moral value of curbing the claims of the self in the interest of the relational within a familial/communal context.

The emphasis Shelley puts on familial acculturation and social embeddedness is particularly strong in her presentation of the Creature's life. When abandoned, the Creature is a gigantic baby. Unsupported by any familial or social context, he is totally helpless and goes about learning about his own basic needs and teaching himself necessary skills for survival. In this 'natural' state he evinces the instinct for self-preservation and comes to feel compassion for the De Lacey family. His compassion subsequently engenders his desire to make their acquaintance. By thus showing the natural instinct for compassion leading directly to the social instinct for establishing relations, Shelley marks a fluidity between the state of nature and that of culture, and undoes the conceptual hiatus between 'nature' and 'culture' that is central to Rousseau's philosophy (O'Rourke 317–318). This conceptual separation, basic to patriarchal thinking, got a fillip from the Romantic/Rousseauistic discourses on the superiority and the primacy of the natural. The Creature's career is one major locus of Shelley's critique of this conceptual and discursive schism.

In the Creature's life-story Shelley both expounds and undercuts Rousseau's concept of the 'natural man'—the pure animal being of the human creature that gets corrupted by the artificiality and decadence of civilization. Save the first outgoing emotion of the Creature that makes him turn to its creator in a gesture of clinging dependence, all his feelings of sympathy and benevolence are aroused in response to his cultural environment, as is his sense of right and wrong. The Creature himself points this out to Frankenstein when he concludes the anecdote of the De Laceys thus: "Such was the history of my beloved cottagers. It impressed me deeply. I learned, from the views of social life which it developed, to admire their virtues, and to deprecate the vices of mankind" (85). Cultural documents in the form of books give him "an infinity of new images and feelings"; Goethe's *"Sorrows of Werter"* gives him the sense of "something out of self" and Plutarch's *"Lives"* teaches him "high thoughts" and