

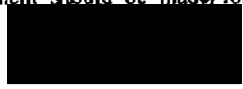
2475/4094

MONASH UNIVERSITY
THESIS ACCEPTED IN SATISFACTION OF THE
REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

ON.....25 March 2003

.....
Sec. Research Graduate School Committee

Under the Copyright Act 1968, this thesis must be used only under the normal conditions of scholarly fair dealing for the purposes of research, criticism or review. In particular no results or conclusions should be extracted from it, nor should it be copied or closely paraphrased in whole or in part without the written consent of the author. Proper written acknowledgement should be made for any assistance obtained from this thesis.



Transformations: Feminism and the Posthuman

Kim Toffoletti
BA/BSc (Hons)

Thesis submitted for the degree of Doctor of Philosophy
Centre for Women's Studies and Gender Research
School of Political and Social Inquiry
Monash University
2002

Table of Contents

| | |
|--|-----|
| Figures | iii |
| Abstract | iv |
| Declaration | v |
| Acknowledgements | vi |
| Introduction | 1 |
| Chapter One The Posthuman as a Productive Transformation for Feminism | 12 |
| Chapter Two Beyond Signification: Simulation, Representation and the Posthuman | 36 |
| Chapter Three Plasticity and Play in Transforming Barbie | 63 |
| Chapter Four Fatality, Catastrophe and Simulated Monsters: Negotiating Difference in Posthuman Figurations | 86 |
| Chapter Five Media Implosion: Posthuman Bodies at the Interface | 114 |
| Chapter Six Cloning Matter and Compromised Visions | 139 |
| Conclusion | 165 |
| Bibliography | 171 |

Figures

1. Barbies at the market
2. *Mechanical Animals* CD cover
3. Centre page from *Mechanical Animals* sleevenotes
4. Francisco Goya, *Saturn Devouring One of his Children* (1820-3)
5. TDK advertising poster
6. Stelarc, *Handwriting* performance (1982)
7. Stelarc, *Ping Body* performance (1996)
8. Patricia Piccinini, image from *Protein Lattice* series (1997)
9. Patricia Piccinini, image from *Protein Lattice* series (1997)

Abstract

Transformations: Feminism and the Posthuman, argues that posthuman figurations create productive possibilities for feminist formulations of subjectivity. I critically consider the ways in which posthuman figurations enable a new feminist exploration of subjectivity in the techno-age. Jean Baudrillard's theory of simulation provides the framework through which I assess posthuman images circulating in the popular sphere, in order to offer a new politics for the subject. Configurations of subjectivity, identity and the body that are located in a myth of the original or natural are contested in favor of articulating selfhood in terms of transformation.

Declaration

This thesis contains no material that has been submitted for examination in any other course or accepted for the award of any other degree or diploma in the university and, to the best of my knowledge and belief, contains no material published by another person except when due reference is made in the text.



Nov 2002

Acknowledgements

I am indebted to Anne Marsh for her intellectual generosity and calming influence, alongside her willingness to undertake the practicalities of reading and responding to the draft stages of the thesis. Her spirited commitment to the project, faith in my ideas and continual encouragement, has contributed greatly to the completed product.

I would like to acknowledge JaneMaree Maher for her assistance in seeing through the final stages of the project. A great motivator, JaneMaree brought clarity to my swarm of ideas. Thanks also go to Rachel Fensham for her inspiration and enthusiasm in the early stages of my candidature. Maryanne Dever has guided and advised me throughout my time in academia.

To my family, few words can express how much I appreciate your constant support and belief in what I do. A million thanks.

For Dan...

Introduction

This thesis is about the posthuman. It is a study of posthuman images circulating in the popular cultural sphere, and the productive possibilities such figurations can offer for feminism.

Posthuman figurations function as sites of unstable signification that formulate new understandings of the relationship between women and technology in an age of the digital, the informational and the biotechnological.

Transformations: Feminism and the Posthuman establishes a way of theorizing posthuman representations that configures subjectivity beyond the limits of signifying practice. Through the analysis of visual texts, I assess the modes through which the challenge to signification works as an enabling strategy for feminist engagements with posthuman figurations. By contesting the structural foundations of signifying practice, I investigate the ways in which posthuman representations function as a new politics for the subject. In this regard, the posthuman is an in-between subject; creating the possibility for feminism to imagine subjectivity in terms of transformations, pleasures and potentialities. The significance of this formulation resides in its location between feminist discourses of technology and the representational economies in which images are constructed.

At the heart of this argument is a theory of simulation. Jean Baudrillard's writings on the visual enable new articulations of the subject at the advent of the twenty-first century, where digital, biological and information technologies invite a reconsideration of what it means to be human. While the role of image culture in subject formation is predominantly understood as the site where meaning and identity are secured, the possibilities for disabling identity at the level of the image remain largely unexplored in feminist studies of technology. This has prompted me to consider the impact of the visual on formulations of the subject.

Simulation is strategically deployed in order to establish a theory of posthuman figurations at the collapse of the relation between representation and reality. I re-think a structural approach to representational practice that upholds a system of meaning reliant upon an origin or referent. By dissolving the relationship between the sign and reality, Baudrillard's theory of simulation encourages an engagement with representations and subjectivity that is beyond signification. A theory of the image is vital to my project, as it makes possible an understanding of how

posthuman figurations may create new articulations of the subject that exceed dialectical thought, and the impact of such images upon notions of identity, body and selfhood.

In the new order of media, communication and information technologies, a relationship between the organism and the machine emerges that contests organic bodily boundaries, the locus of identity and the status of the human. Clear distinctions between what is real and what is virtual, where the body ends and technology begins, what is nature and what is machine, fracture and implode. As dualistic modes of thought are destabilized, humanity is forced to re-think a human condition predicated upon a myth of the original and the natural. From this dissolution of binary thought the potential emerges for alternative embodiments, new formulations of the subject and fresh means of experiencing the world through posthuman figurations. These entities are neither real nor imaginary, but products of a simulation order in which dichotomies of value implode as the sign/origin relationship collapses. It is at this point of implosion that the transformative potential of the posthuman resides, and also where I situate my analysis.

The necessity to imagine alternative modalities for the subject is what feminist theorist Rosi Braidotti promotes when she writes:

What counts as human in this posthuman world? How do we rethink the unity of the human subject, without reference to humanistic beliefs, without dualistic oppositions, linking instead body and mind in a new flux of self? What is the view of the self that is operational in the world of the "informatics of domination"? (Braidotti 1994b: 179).

Braidotti's questions recognize the difficulties of theorizing subjecthood in an increasingly technologized world. The tension between the subject and technology in her statement echoes Heidegger's aphorism regarding the status of the subject in technology (1977). For Heidegger, articulating subjective experience in relation to the technological restructuring of society is pivotal to transforming established understandings of being. Yet it is also necessary to go beyond Heidegger to consider the transformation of the subject outside of technology's dehumanizing force.

While asking us to engage in a way of thinking 'without reference to humanistic beliefs', Braidotti's interrogation prompts a cascade of inquiries with respect to theory, methodology and ontology (1994b:179). Indeed, for the purposes of this thesis, Braidotti's questions motivate my analysis of how the posthuman affords new possibilities for re-thinking the subject. In line with

feminist political endeavors to imagine alternative female subjectivities, I theorize posthuman figurations without recourse to essentialist or monolithic notions of 'woman'. Doing so disrupts myths of the originary and natural.

Feminist debates pertaining to the relationship between women and technology provide one model through which the workings of the posthuman may be contextualized. This is because the study of the posthuman is in many ways an extension of the question of *man*'s relationship to technology, and accordingly, the status of the human. From this perspective, I find it appropriate to consider feminist approaches to technology as a way of understanding the posthuman. I survey the shifts in feminist conceptualizations of technology to chart how the human/technology interaction has been interpreted by feminism. A reading of the posthuman is developed that brings together feminist studies of technology and a theory of simulation.

One of the cultural spaces in which these processes are enacted is popular image culture. I have chosen a diverse range of visual sites through which to analyze the posthuman phenomenon. These include advertising, CD cover-art and contemporary art practice. What connects each text is an ambivalence that destabilizes meaning and problematizes origins, opening up spaces for new articulations and representations of posthuman experience. While the ambivalence associated with the 'threat and promise' of technology has been recognized within feminist studies of technoscience, the productive possibilities of such ambiguities for subject formation have remained considerably under-theorized.

By examining the associations between shifts in contemporary social operations and engagements with representational practice, *Transformations* provides a way of thinking about the subject and image, which is not founded on origins. The posthuman figurations I use operate as sites of contest, challenging an established set of values based in dialectical thought. A tension between the human and technological is indicative of the posthuman figuration. And it is this tension that disrupts traditional understandings of selfhood, identity, the body and reality. By advocating a transformative subject, I attempt to theorize subjectivity beyond the oppositional structuring of self/Other upon which a politics of identity and difference has been forged.

Underpinning this reformulation of the subject is a shift in contemporary social relations that sees narratives of time, space and history as radically altered by engagements with technology. The limits of the body and identity are called into question by an acceleration of information and

media. Origins have no place in an order of simulation where history is replayed in the endless propagation and proliferation of signs. History disappears when the original and the real no longer exist as coherent categories. The posthuman inhabits this space beyond the real where time and history defy linear progression. It disrupts origin stories, contesting understandings of being, and creating the potential to configure the subject outside of temporal narratives of evolution and progress.

My use of Baudrillard differs from other feminist engagements with his scholarship that predominantly take the form of critical response to his theories on seduction (Gallop 1987, Plant 1993). Instead, it is the representational economy of simulation offered by Baudrillard that I argue proves tactically useful to a feminist analysis of representations of the posthuman. Baudrillard's falling out with feminism over his writings on seduction and attitude toward women has resulted in little productive engagement with his work from within feminist analyses of image culture.

Jane Gallop's engagements with Baudrillard's writings on seduction in 'French Theory and the Seduction of Feminism' (1987) are indicative of feminism's rightful unease with his provocative and often radical assertions regarding the nature of subject relations. In this article, Gallop denounces Baudrillard for 'seeing feminism as stupid, wrong, mistaken' (1987: 114). Alongside her critique of his theory of seduction as maintained within a contradictory logic, Gallop is particularly apprehensive of the manner in which Baudrillard speaks to women from a position of superiority 'that knows the truth of the feminine and the masculine and can thus, from this privileged position beyond sexual difference, advise women how best to combat masculine power' (1987: 114). By establishing Baudrillard as a male theorist who claims to know what is best for feminism, Gallop dismisses the possibility of a productive exchange or dialogue between feminism and his work.

Gallop acknowledged in her analysis that very few Anglo-American theorists were familiar with Baudrillard's work, and at that time only a small selection of his writings were available in English (Gallop 1987: 111). This relative inaccessibility of Baudrillard's texts, alongside Gallop's initial critique, appears central to the lack of dialogue between feminism and his scholarship. Since Gallop's infamous attack on Baudrillard's theory of seduction, his work has become widely recognized and accepted within English-speaking academia. Despite Baudrillard's considerable contribution to discursive fields such as visual, cultural and media

studies, feminism has largely dismissed the productive possibilities that his writing might hold for a feminist political project, failing to negotiate points of engagement, or common ground between feminist theoretical strategies and Baudrillard's work.

It is not important here to defend Baudrillard on the topic of seduction. The seduction debates constitute but one aspect of Baudrillard's theoretical output, and are sufficiently explored by both Keith Goshorn and Victoria Grace (1994: 257-291, 2000: 158-164 respectively). Rather, I look elsewhere in his body of work to consider how simulation might function as an enabling strategy for feminist engagements with posthuman representations. I strategically deploy Baudrillard's writings for a feminist project to make sense of the posthuman in a climate characterized by the abundance of signs and the implosion of meaning.

I acknowledge that feminist political projects and Baudrillard's theories are not always complementary. Particularly problematic are Baudrillard's antagonistic statements directed toward a feminist politic in texts such as *Seduction* (1990a) and *America* (1988a). Indeed, some of the most vehement criticism of Baudrillard's attitude to women manifests from male theorists' critiques of these texts (Gane 1991b: 57-65, Kellner 1989: 143-150).

Recent trends see Baudrillard's contribution to the critique of identity politics bypassed by feminism in favor of Deleuze's productive spin on desire, bodies and becoming.¹ Meaghan Morris and Keith Goshorn, however, have considered the possibility of productive alliances between feminism and the theories of Baudrillard (Goshorn 1994, Morris 1988).² Yet not until Victoria Grace's comprehensive and overdue feminist engagement with Baudrillard's writings, *Baudrillard's Challenge* (2000), has a sustained and thorough critique of the work of Baudrillard and his intersections with feminist theory been available. In keeping with these constructive critical approaches, I suggest that Baudrillard's writing can facilitate a dialogue between feminism and popular culture by providing a context in which to reconfigure the relationship

¹ Feminists such as Braidotti denounce Baudrillard's 'nihilistic trend' toward the implosion of differences (1991: 122-123), in favor of Deleuze's dynamic and affirmative politics of the molecular and multiple as a way of figuring the female subject without origins. See Braidotti, Rosi. (1994b) 'Toward a New Nomadism: Feminist Deleuzian Tracks; or, Metaphysics and Metabolism', In Constantine V. Boundas and Dorothea Olkowski (Eds.), *Gilles Deleuze and the Theater of Philosophy*, New York and London: Routledge, 159-186. See also Buchanan, Ian and Colebrook, Claire (Eds.). (2000). *Deleuze and Feminist Theory*, Edinburgh: Edinburgh University Press, for an introduction to the key writers on Deleuze and feminism.

² Morris does however, ultimately concede that Baudrillard's strategies risk returning to 'the prison-house of language' (1988: 210).

between bodies, representation and technology. The proliferation of media and signs in a culture of simulation is central to an understanding and engagement with posthuman figurations and notions of self.

Chapter One establishes the argument for posthuman figurations as ambivalent sites that contest the limits of prevailing feminist debates of the subject and technology. I commence the thesis with a review of how the posthuman has been understood and theorized within cultural theory, in particular by feminist articulations of the posthuman. An analysis of posthuman literature reveals the need to think critically about the role of the image in the construction of meaning and formulation of the subject. It is through the lens of Foucault's genealogy that I approach the posthuman. The posthuman has been predominantly imagined in terms of a crisis in humanism, precipitated by twentieth century digital and cybernetic technologies. For the most part, this crisis has been favorably received, deployed by post-structural thinkers as a mode of displacing the unitary humanist subject in favor of multiple and shifting configurations of selfhood.

The two key feminist texts on the posthuman that I assess are *Posthuman Bodies* (1995), by Judith Halberstam and Ira Livingstone, and N.Katherine Hayles' *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999). These feminist engagements with the posthuman stress the importance of embodiment in a brave new world of information technologies. There is no desire to leave the body behind in an act of masculinist transcendence of the body through technology. In maintaining that technology alters how the world is experienced through bodily enactments, such feminist approaches to the posthuman largely uphold the distinctions between the material world and its virtual counterpart. *Transformations* moves beyond current literature on the posthuman by exploring the role of representation upon understandings of the posthuman at the point where the material and the virtual collapse. This study speaks to feminist scholarship on the posthuman by taking into account the economy of the visual in which images of the posthuman circulate, and the ensuing shift in feminist conceptualizations of the operations of representation upon subject formation. I argue that posthuman figurations manifest in the context of simulation culture; an economy of representation that problematizes assumed understandings of reality, the body and identity.

The tendency of feminist analysis of the relationship between women and technology has been to interpret technology as largely beneficial or detrimental to women. I position myself within this debate as neither affirming nor critiquing technology itself. Instead, I critically assess the

feminist dialogue informing this relationship to facilitate a better understanding of how figurations of the posthuman operate in popular culture. I argue that such figurations belie easy distinctions of good or bad, circulating rather as ambivalent and contested sites that disrupt the fixity of meaning formulation predicated upon dialectics.

In the critical debates that have emerged from feminist dialogue about the relationship between women and technology, I take issue with a materialist or essentialist feminist rhetoric that considers technology as a violence upon the integrity of the female subject. Rather, my position is more closely aligned with that of feminist cultural thinkers such as Donna Haraway and Judith Halberstam, who advocate the dissolution of absolutisms pertaining to the gendered subject and locate this argument at the collapse of the status of the natural contra the technological.

Chapter Two establishes Baudrillard's theory of image culture as tactically useful to a feminist analysis of representations of the posthuman. I engage with Baudrillard's writings throughout the thesis to argue for a manifestation of the posthuman as a historically specific formulation intimately associated with the deconstruction of the body. His studies of simulation, the hyperreal and media culture provide a context in which to analyze the circulation of posthuman figurations. I explore the ways in which Baudrillard's theory of simulation may serve as a productive feminist tool to approach representations of the posthuman in contemporary cultural sites.

Having instituted a Baudrillardian framework to consider posthuman representations, Chapter Two then provides an account of the modes by which feminism has negotiated popular representational forms. The history of feminist film scholarship precedes an examination of current feminist debates about the operations of popular culture. This charts how women have traditionally engaged with popular images in the age of mass communications, while considering the possibilities that simulation theory might generate for a productive feminist engagement with the posthuman. Debates concerning the representation of women within feminist film and cultural studies analysis invariably raise questions regarding the relationship between bodies, technologies and representation. The changing status of the body in relation to both technology and representation thus forms the basis of the third chapter of the thesis.

The following chapters develop my argument for understanding posthuman figurations as transformative possibilities that reside beyond signification. I have selected four images of the

posthuman from the popular cultural sphere. These texts have been chosen for their productive ambivalence. They operate as contested sites; spaces of ongoing boundary play where meaning is up for grabs. What connects these images is an uncertainty that denies the possibility of defining the image as man or woman, real or illusion, self or Other, human or non-human. Each chapter demonstrates various tropes by which posthuman figurations challenge signification. Plasticity and transformation frame a study of Barbie in Chapter Three. Chapter Four and Five configure the posthuman in terms of catastrophe and the interface respectively, while Chapter Six is informed by the tropes of the code and the clone.

I turn to the phenomenon of Barbie in Chapter Three to further explore the possibility of an alternative relationship for women and technology precipitated by the collapse of categorical distinctions in an increasingly technological cultural climate. This section develops the themes of plasticity, femininity and technologies of consumption to argue for a reconfiguration of the body/technology relationship as a transformative process. Beginning with a study of the history of plastics, I argue that the ambivalence of plastic creates the possibility to re-think feminist debates on technology and the body, and establish a framework through which to approach posthuman representations. In this regard, Barbie acts as a 'bridging' figure between debates surrounding gender and representation, and posthuman, post-gender figurations.

I celebrate Barbie's plasticity as a strategy to challenge a materialist feminist 'return to the body' as the locus of identity. By contesting the antagonisms between women, bodies and plasticity as they are understood by materialist feminism, I propose another way of thinking about the relationship between bodies and technologies: as exceeding the limits of signifying practice via plasticity. I interpret Barbie as a 'transformer' — an in-between phenomenon that occupies the ambivalent space between the image and its referent, between illusion and the real. Re-thinking Barbie as a transformative, plastic figuration displaces a politics of subjectivity grounded in identity. What is offered in place of identity is an alternative modality of subjectivity that is not aligned with a process of identification or a practice of resistance. Perceiving the subject as transformative offers a figuration more suited to a social imaginary, in which ideas of self, truth and reality are complicated by our engagements with technology.

Chapter Four addresses the question of difference as it is represented in posthuman figurations. I interrogate established understandings of difference within the context of a simulation culture that complicates the binaries of gender difference. This is achieved through a reading of two images

from the sleeve notes to the Marilyn Manson CD *Mechanical Animals*. I interpret the Manson figuration within a history of representations of the monstrous, while also acknowledging the proliferation of new monstrous forms. Like the monster, the posthuman acts as a boundary figuration to disrupt coherent notions of humanness, reality and identity.

In a reclamation of the association between the monstrous and feminine Other, feminist revisionist projects have indicated the ways in which monster discourse offers productive and subversive means of challenging humanist subjecthood. The limitations of such an approach are considered in the context of a simulation order that abolishes the possibility of Otherness. Informed by Baudrillard's writings on catastrophe, I discuss the ways by which posthuman skin encourages a reappraisal of the semiotic production of meaning. A catastrophic mode of figuring subjectivity, as theorized by Baudrillard, sees the process of reading images shift away from a semiotic emphasis upon meaning production toward a space in which signification is exceeded.

As a means of negotiating the question of difference in an order of simulation where differences collapse, I question the efficacy of Barthes' theory of myth for an understanding of the workings of popular culture. The operations of myth, as identified by Barthes, are reconsidered in the context of Baudrillard's simulation culture. I understand posthuman figurations to function as disruptions of a naturalized vision of the world. The naturalization of culture, that depends upon a masking of the real, is problematized at the point where the relation between the real and its representation collapse. The posthuman figuration therefore circulates as a sign that invalidates the myth of the human by wresting it away from biological referents grounded in an uncontested notion of the real. The implications of the erasure of difference will also be explored.

Chapter Five develops this reworking of the image and reality in contemporary culture by arguing for the posthuman as an interface. Focusing upon a poster from the advertising campaign 'Evolve to TDK', I consider how posthuman figurations in media and communication technologies allow us to refigure bodily limits and understandings of what a body is. The posthuman as interface is used to locate the subject as neither subsumed by technology, nor positioned outside of it. Drawing on Baudrillard's writings on the ecstasy of communication, I theorize the subject at the site of collapse between the subject/object distinction. Re-thinking the body as an interface between biological and informational systems counters theories of the subject that are confined to the biological limits of the body.

The final chapter situates a study of posthuman figurations within narratives of the human genome. I contend that the representation of genetic science and biotechnology within popular culture challenges the notion of origins by circulating as a series of simulations. Through the work of Australian visual artist Patricia Piccinini, I consider the kinds of transformations that emerge from the interaction of scientific doctrine and representational practice. Using Piccinini's *Protein Lattice* series of digital images, I question the legitimization of the origin myth that forms the basis of the representation of technoscience.

Chapter Six draws on feminist critiques of science to highlight the masculinist assumptions inherent to science studies. Beginning with an examination of the natural to re-think established paradigms of the feminist analysis of technoscience, I deploy Baudrillard's writings on the model, the code and the clone to foreground the ways that posthuman figurations operate to destabilize signifying practice. The miniaturization of the body, as evidenced in the example of the Human Genome Project website, is analyzed here to challenge signifying practices predicated upon origin stories, by way of simulation.

I conclude this chapter, and the thesis, by constructing a dialogue between feminist approaches to the representation of technoscience, namely the writing of Donna Haraway, and the theories of Jean Baudrillard. Reading these two approaches together draws attention to the shared aspects of Baudrillard's work and the feminist projects of technoscience, while also emphasizing the points of difference between the two. A theory of the posthuman thus emerges that is an amalgam of feminist theory and postmodern image culture.

In claiming that posthuman figurations such as Marilyn Manson and Barbie enable new formulations of the subject, I do not wish to suggest that the meaning of the text is determined by original authors who create their own image. Rather, analyzing these images aims to create something more profound that resides between an 'original', that I argue is absent, and the representation of what is already a simulacrum. A hybrid emerges, an intermingling of the image and the author that displaces the notion of an original. Manson, the TDK baby, the mutant rodent and Barbie do not mask, or reflect reality; they become our reality.

Recent contributions to the study of the posthuman include Elaine Graham's *Representations of the post/human* (2002). Her feminist analysis explores the ways in which science fiction and popular culture advance our understandings of the posthuman within the popular sphere. This

monograph, along with Francis Fukuyama's *Our Posthuman Future* (2002) was released during the final stages of the dissertation, therefore I have been unable to include an analysis of either text within my argument. Nonetheless, I note them here as valuable contributions to the debates pertaining to the posthuman.

It is not my purpose to advocate a utopian or futuristic ideal of the subject. Nor do I imply that posthuman figurations transcend the materiality of the body or corporeal experience. I resist such readings, preferring to call into question our understandings of the real, representation, the body and identity. The potential for posthuman figurations to offer new imaginings and subjectivities does not necessitate the repudiation of corporeality. Rather, it is the process of transformation that allows for the continued renewal and remaking of embodiment and experience. I argue that these concepts cannot be understood in the same way any more. Simulation demands new articulations of the self more suited to a postmodern, posthuman experience of technology and the visual.

Chapter One

The Posthuman as a Productive Transformation for Feminism

In their edited collection *Mapping the Subject: Geographies of Cultural Transformation*, Steve Pile and Nigel Thrift ask: 'What novel kinds of discursive images of the self and experience, what different kinds of identity, what fresh image-concepts, what new maps of subjectivity, which new *figurations* are available?' (1995: 17, italics in text). In posing this question, Pile and Thrift align themselves with the sustained project of post-structural thought that endeavors to conceive subjectivity in the context of contemporary culture. In considering the posthuman figuration as a new model for subjectivity, I locate myself as part of a feminist post-structuralist project to re-think, re-map and refigure the boundaries and limits of a politics of identity.¹ This chapter establishes my argument for posthuman figurations as sites of unstable signification that disrupt conventional feminist understandings of the relationship between women and technology.

I begin this chapter with an overview of the current literature about the posthuman. I discuss the cultural significance of the posthuman using feminist principles to highlight its potential to reformulate a politics of identity. I situate my study within the existing literature on the posthuman by proposing the representational economy of simulation as the framework through which to analyze the posthuman. The second part of the chapter is committed to charting the feminist debates regarding the relationship between women and technology. I explore the possible limitations of feminist understandings of technology/subject relations for theorizing posthuman figurations by establishing a dialogue between feminist studies of technology and a theory of simulation. Feminist negotiations of the techno-human interaction are assessed in order to pursue new articulations of the subject in the context of contemporary technologies.

The deployment of figurations as a feminist strategy to imagine alternative subjectivities is not new. Alongside her own model of the nomadic subject Rosi Braidotti cites both Luce Irigaray's two lips and Donna Haraway's cyborg as two well-know feminist figurations (Braidotti 1994a: 3).² Figurations, as Donna Haraway notes, function as 'performative images that can be

¹ In keeping with Baudrillard's claim that the map precedes the territory, it is not my aim to map a pre-existing subject, but to theorize subjectivity in terms of the processes by which it may be constituted.

² I offer a more comprehensive assessment of Donna Haraway's cyborg figuration in my discussions of the women and technology debates later in this chapter.

inhabited' (1997: 11). They operate as conditions of possibility or ways of thinking that re-imagine subjectivity beyond the unitary phallogocentric subject of humanism. In order to locate posthuman representations as strategically productive figurations for feminist theorizations of subjectivity, it is first necessary to survey the various approaches taken toward understanding the posthuman.

The posthuman figuration, like the feminist figurations of Haraway and Braidotti, signals a crisis in traditional understandings of the human subject. Neil Badmington, editor of *Posthumanism* (2000), neatly summarizes this point when he remarks that 'the crisis in humanism is happening *everywhere*. . .the reign of Man is simultaneously being called into question by literature, politics, cinema, anthropology, feminism and technology. These attacks are connected, part of the circuit of posthumanism' (2000: 9, italics in text). For some time now, the notion of the subject in crisis has been the central concern of many post-structural thinkers. And it is through the writings of Jean Baudrillard, one such proponent of an unsteady and ambivalent state of subjectivity, that I choose to locate my argument for the posthuman as a productive figuration for feminist revisions of subjectivity. Throughout *Transformations*, I too challenge the notion of the human produced in various disciplinary fields, employing a genealogical approach to argue for the posthuman figuration as the product of simulation culture.

This approach, as formulated by Michel Foucault and best explained in his essay 'Nietzsche, Genealogy, History' (1984a), favors a consideration of the historical development of the posthuman in terms of a series of displacements and assemblages of interconnected materialities. Unlike a search for origins, which relies upon a linear narrative of history as its referential locus, genealogy fragments a unified, linear account of history and the emergence of the subject within it (Foucault 1984a: 77). Genealogy allows for a theory of posthuman figurations within a cultural aesthetic of simulation that contest origins, offering new modes of understanding the subject beyond signifying practice. This chapter argues that posthuman figurations, located in the context of Baudrillard's simulation order, problematize feminist constructions of technology and the subject. I establish a theory of posthuman representations at the nexus of feminist technology debates and the postmodern experience of the visual.

As early as 1977, Ihab Hassan reflected on posthumanism in the following manner:

We need to first understand that the human form — including human desire and all its external representations — may be changing radically, and thus must be re-visioned. We need to understand that five hundred years of humanism may be coming to an end, as humanism transforms itself into something that we must helplessly call posthumanism (Hassan 1977: 212).

Hassan's vision of the posthuman relies upon a new relationship to the body and self. As traditional formulations of the human are called into question by the post-structural and postmodern dissolution of absolute systems of value, so too are entrenched notions of the body and identity scrutinized. More recently, two key feminist texts have emerged that approach the posthuman with a particular regard to embodied difference. An exploration of how the posthuman has been defined in these texts situates my argument for the posthuman figuration as challenging signification.

Judith Halberstam and Ira Livingstone's edited collection of 1995, *Posthuman Bodies* and N.Katherine Hayles' *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics* (1999), establish the body as a site where what it means to be human in a contemporary age is fundamentally contested. The introductory chapter of *Posthuman Bodies* responds to the posthuman as a phenomenon that is almost post-definitional. Rather than offering a fixed interpretation of what the posthuman might encompass, Halberstam and Livingstone favor the Deleuzian concepts of multiplicities, becomings and assemblages to fragment master narratives structuring notions of bodies, identity and humanness.

For Halberstam and Livingstone, the posthuman body is located at the interstices of 'postmodern relations of power and pleasure, virtuality and reality, sex and its consequences' (1995: 3). Their posthuman bodies are the queer body, the techno-body and the contaminated body; bodies that rupture a linear narrative of the posthuman in favor of the body in crisis (1995: 3-4). The frenetic fragmentation of identities, genders and sexualities throughout *Posthuman Bodies* sits in stark contrast to the methodological approach adopted by Hayles. While Halberstam and Livingstone's collection is oriented toward discursive strategies through which the body may be productively re-imagined, Hayles privileges a historical interrogation of the emergence of the posthuman.

How we Became Posthuman examines the question of posthuman existence within contemporary society by addressing three key areas — how information lost its body, how the cyborg was created as a technological artifact and cultural icon, and how a historically specific construction called the human is giving way to a different construction called the posthuman (Hayles 1999: 2).

Hayles provides a historical assessment of cybernetics, interspersed with literary critique, to investigate how both scientific discourses and popular literary texts work in tandem to reshape notions of the human. This approach to posthuman identity charts the trajectories of cybernetic discourse and literary articulations of posthuman existence to expose the narratives of anxiety that are prevalent at the collapse of bodily boundaries. According to Hayles, the posthuman is best understood as a historically and culturally situated construction, emerging from the interplay between popular discursive formations and narratives within cybernetics and literature.

This differs considerably from the approach taken by Halberstam and Livingstone, who follow Jean Baudrillard's lead by suggesting that '(h)istory is inefficient as a method of processing meaning; it cannot keep up' (1995: 3). Like Halberstam and Livingstone, I consider the posthuman from the position of a 'past and future lived as present crisis' (Halberstam and Livingstone 1995: 4). The body and identity is not only radically transformed by everyday interactions with technology (Turkle 1984), but projected into futures without histories. As I argue in my final chapter, the death of history, as it is understood by Baudrillard, dissolves Western metanarratives, opening up the possibility for posthuman figurations to circulate as potentialities that offer multiple modalities of bodily experience.

Both Hayles' *How we Became Posthuman* and Halberstam and Livingstone's *Posthuman Bodies*, define the posthuman in terms of a productive crisis that contests old categories in favor of a proliferation of meanings, subjectivities, and positions. And while both texts address the posthuman as an embodied state, little has emerged within literature on the posthuman to suggest how such figurations might operate in a culture of simulation to radically contest notions of reality, being and identity. It is at the site of the collapse between reality and fiction, referent and image, that I locate the posthuman as a figuration that reformulates identity as a process of transformation.

A lucid review of cybernetic principles underpins Hayles' assertion that the posthuman derives from the specific moment where information is separated from a material substrate.³ She states that '(t)his separation allows the construction of a hierarchy in which information is given the

³ The term substrate is used by Hayles to connote the medium through which information is made meaningful. She states: 'for information to exist, it must *always* be instantiated in a medium, whether that medium is the page from the *Bell Laboratories Journal* on which Shannon's equations are printed, or computer-generated topological maps used by the Human Genome Project, or the cathode ray tube on which virtual worlds are imagined' (1999: 13, italics in text).

dominant position and materiality runs a distant second' (Hayles 1999: 12). A product of modernist thinking about intelligence and being, cybernetics posits the human as a set of information processes, privileging mind over body and erasing the embodied experience of the corporeal subject. The discourse of cybernetics can thus be interpreted as being at odds with a feminist politics that seeks to redress the negation of female subjectivity, embodiment and experience. It is the cybernetic myth of disembodiment predicated upon the fabrication of 'information and materiality as distinct entities' (Hayles 1999: 12) that Hayles endeavors to deconstruct by repositioning the posthuman as an embodied mode of being.

Hayles problematizes and moves beyond the cybernetic proposition that human identity is constituted by an informational pattern, rather than embodied experience. The material/informational divide is challenged through an exploration of the interplay of discursive formulations of embodied subjecthood and the cybernetic desire for disembodiment. For Hayles, it is this parallel tension between abstraction and embodiment that produces the posthuman subject. By building and extending upon feminist studies of technology, cyberspace and embodiment, Hayles puts the body back into information, revaluing the posthuman as an embodied mode of being. Contesting the divide between information and materiality challenges the construction of the cybernetic subject as disembodied. Hayles' response therefore relies upon reinstating and revaluing the body in a humanist narrative that traditionally separates man from woman, mind from matter and technology from the body (Hayles 1999: 5).

The implications of the separation of materiality and information for feminism do not go unnoticed by the author. While cybernetics disrupts the status of the human by blurring the distinction between machine and human, it is concurrently aligned with a liberal-humanist agenda that reinforces the primacy of the unified subject by 'fashioning human and machine alike in the image of an autonomous self-directed individual' (Hayles 1999: 7). Hayles expresses concern that the posthuman risks reasserting the archetypal liberal-humanist subject if the myth of disembodiment is not redressed (Hayles 1999: 5).

Emphasized throughout her argument is the necessity to critically intervene in the discourses arising from computer technology to prevent new formations of the subject being rewritten from a disembodied position (Hayles 1999: 5). I take issue, however, with the unproblematic division of the virtual and the real upon which Hayles' embodied posthuman relies. She advocates an embodied virtuality that perceives human life as 'embedded in a material world of great

complexity' (Hayles 1999: 5). Moreover, she reminds us of 'the fragility of a material world that cannot be replaced' (Hayles 1999: 49). By returning to the concept of a material reality, Hayles redresses the cybernetic myth of bodiless information, but in doing so, undermines her continued emphasis throughout the text upon embodiment and experience. While accurately noting the connectivity between 'models of signification...embodied experience as it is constructed by interactions with information technologies, and the technologies themselves' (Hayles 1999: 29), I question her failure to consider how the material world is problematized by the virtual.

It is at this juncture that I differ considerably from Hayles in my approach to the posthuman. I argue for the posthuman as a figuration that emerges from simulation culture. In a context where the distinctions between a material world and the virtual collapse, the posthuman favors imaginings that reside beyond the codes of signification and their enactments. Rather than maintain Hayles' argument that the experience of technologies alters how the body is perceived and the world is experienced via corporeality, I investigate how simulation culture, as described by Jean Baudrillard, transforms the process of signification. This, in turn, leads to alternative understandings of reality, the body and selfhood. I differentiate my work from other feminist theorists of technology by establishing a reading of the posthuman that takes into account the representational economy of simulation in which images are constructed and circulated.

Neither *Posthuman Bodies* nor *How we Became Posthuman* offer a comprehensive theorization of the visual and the circulation of posthuman images within a representational economy. My proposition that a transformation in signification allows feminism to refigure notions of identity, representation and reality does share similarities with the thesis Hayles puts forth in Chapter Two of her text. In 'Virtual Bodies and Flickering Signifiers', Hayles forges valuable insights toward refiguring the signifier/signified relationship by way of a shift from the absence/presence dialectic to one of randomness/pattern. In a world where the emerging cultural aesthetic of the digital is transforming our very mode of signification, Hayles contends that discursive formations predicated upon a presence/absence dialectic are no longer effective in making meaning in a virtual world. Theories of the subject discussed in terms of presence/absence are rendered redundant in the digital domain of simulation and virtuality, where signified and signifier have no direct relationship and meaning is no longer grounded by a fixed origin.

For Hayles, mechanical technologies of inscription display a proportionate relationship between signifier and signified. She uses the example of the typewriter to suggest that the physical act of

striking a key produces a directly corresponding letter. In the arena of digital technology, however, the signified and signifier no longer correspond in a one-to-one relationship. The computer exemplifies how a pattern of presence/absence now becomes a model of signification based on randomness. In a virtual environment, 'text-as-flickering-image' may be manipulated entirely by a single keystroke, thus fundamentally altering the signified/signifier relationship predicated upon a one-to-one association (Hayles 1999: 26).

Favoring a Baudrillardian approach to the collapse between signifier and signified in a visual economy of signification, Hayles opts to consider the effects of a pattern/randomness shift upon literary texts (Hayles 1999: 28). She proposes a theory of signification based upon pattern and randomness to replace Cartesian dualisms of presence/absence. Extending the Lacanian concept of the floating signifier, Hayles postulates that 'information technologies create what I will call *flickering signifiers*, characterized by their tendency toward unexpected metamorphoses, attenuations, and dispersions' (1999: 30, italics in text). While this concept offers an effective tool to consider how technologies of textual production affect signification, it cannot be sustained at the point where the circulation of signs have no relation to the material world. By replacing a dialectic of presence and absence with one of pattern and randomness, Hayles maintains a dualistic structure with which to consider signification, as well as establishing a divide between the material (presence/absence) and the virtual (pattern/randomness). As I explain in Chapter Two, an order of simulation collapses a mode of sign exchange against a 'real', thus confusing the very categories of virtuality and reality.

The essays comprising the final section of *Posthuman Bodies* promote ways of being where the hybrid state of the mutant, alien, monster and cyborg are no longer futuristic and utopian myths of becoming, but forms of posthuman existence. While Halberstam and Livingstone's project to generate new imaginings beyond embodied enactments informs my approach to posthuman figurations, I do not wish to imply that the posthuman represents a utopian ideal of what we are, or what the future will be. Rather, the posthuman circulates as a potentiality, possibility or process beyond a dichotomy of what is real and what is illusion. The posthuman is a point at which we never arrive. Posthuman figurations operate as sites of ambiguity, as transitional spaces where established dichotomies are no longer sustainable. From this perspective, the posthuman cannot function as a mechanism of identification for women. The posthuman disrupts a feminist reclamation of the mutant, alien and monstrous that forges a productive alliance between women and non-human Others. The posthuman does not speak from the site of

difference, but attacks the dualistic nature of value systems. When the binary codes upon which self/Other, real/illusion, and organic/machinic collapse, the posthuman figuration becomes a site of transformation that exceeds the limits of the body and identity.

I position myself against Hayles' argument that the posthuman emerges from the cybernetic model of disembodiment, and hence must be reinstated in an embodied reality. It is the very notion of reality within a context of simulation that disables a reading of the posthuman as an embodied state of being. Simulation favors proliferations and excesses that cannot be fixed within signifying practice. Figurations of the posthuman are products of the hyperreal, emerging at the site where fact and fantasy intersect.

Locating the posthuman within the context of Baudrillard's third order of simulacra operates as a means of differentiating representations of the posthuman from the realm of science fiction. According to Baudrillard, the imaginary of science fiction corresponds to a second order of simulacra, whereby the order of signs is founded upon a system of serial production materialized through mechanical and technical means (1993: 55). Yet in our current order of signs, that of the third order of simulation, Baudrillard claims the gap between the real and the imaginary is abolished, and along with it, the genre of science fiction predicated upon a utopian imaginary (1994: 212). The posthuman emerges as 'something else' that cannot be located as either analogy (first-order simulacrum) or equivalence (second-order simulacrum). Rather, the posthuman occupies a mode of signification that is founded upon hyperreality.

My understanding of the hyperreal is consistent with Paul Rodaway's assertion that 'it is important to not treat the hyperreal as specific places or situations, but as a potential way (or limits?) of experiencing an associated mode of signification found in contemporary spaces' (1995: 244-5). The hyperreal sees dichotomies of value implode in the collapse of the sign/origin referential relationship. What ensues is not the abolition of the real, but the emergence of the hyperreal as that which is *more real than real*. As Baudrillard articulates in his keynote text on the theory of the simulacra, *Simulacra and Simulation*, '(s)imulation is no longer that of a territory, a referential being or a substance. It is the generation by models of a real without origin or reality: a hyperreal' (1994: 1).

The hyperreal is deployed by Baudrillard as a strategic process to re-think traditional signifying practice based upon dualisms of a sign/origin relationship. I also wish to use the hyperreal as a

strategy to make sense of posthuman images at the site where global media, information systems and biotechnologies collide and implode. As I explain more fully in Chapter Two, it is the experience of hyperreality as a mode of signification that creates the possibility for understanding the posthuman in a way that moves beyond fixed interpretation.

Feminist studies of technology provide a valuable body of analysis through which to consider the productive possibilities of posthuman figurations for feminism. Within the critical discourses surrounding technology, feminist theory has explored the benefits and limitations of technology for configurations of the subject. By choosing to enter into a feminist dialogue on women and technology, I aim to facilitate a better understanding of how figurations of the posthuman operate in popular culture. Posthuman figurations circulate as ambivalent and contested sites that reside beyond signification, and thus prove useful for articulating issues of identity, sexuality and subjectivity in contemporary culture.

Critical accounts of the relationship between the subject and technology are largely constructed in accordance with the dialectical principles that govern Western thought. If we are to follow Baudrillard, such an approach to techno-human relations can no longer be sustained within an order of simulation that puts an end to stable oppositions. As a product of simulation culture that erodes the distinctions between real and imaginary, origin and sign, I argue that posthuman figurations cannot be located within a narrative of technology as either beneficial or detrimental to a theory of female subject constitution. The structuring of technology as either friend or foe is invalidated by posthuman figurations. Instead, such figurations offer feminism a different way of thinking about the subject/technology relationship, and in turn, a politics of identity. Baudrillard's collapse of dialectics does not signal the end of meaning, but rather generates new possibilities and potentialities for transforming the subject.

In order to critically assess how techno-human imaginings have conventionally been located within feminism, I revisit Donna Haraway's germinal text 'A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s' (1985), where her figuration of the cyborg is first proposed. As 'a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction' (Haraway 1985: 65), the cyborg is a boundary figure that contests the dualisms of nature/artifice, organism/technology and self/Other. By confusing the boundaries of nature, culture, organism and machine, Haraway challenges the myth of original unity and its intimate associations with a coherent category of the natural. The cyborg figuration

thus serves as a subversive and empowering strategy with which to reconsider women's relationships to each other, technology and notions of the human subject. Most importantly, the cyborg provides new modes of conceiving both social and bodily realities and the universal notion of women's shared experience.

The posthuman, like the cyborg, exhibits a confusion of fact and fiction, science and technology, the virtual and the actual. While the cyborg operates as an identificatory figure through which women may better understand the self in the context of changing technologies, the posthuman is mobilized as a figure that disavows identity. The posthuman does not oppose technology, but functions to complicate a dialectical mode of understanding upon which self/Other relations, and hence a politics of identity, are grounded. Read in the context of a transformation in signifying practices, posthuman figurations work against a feminist valuation of technology in dichotomous terms of good or bad. The posthuman is a figuration that exceeds signification; in Baudrillard's terms it 'disappears' in the process of transforming into something else beyond the effects of technology as affirmative or negative for women.

The cyborg operates as a positive indicator of what might emerge from the alliance between feminism and technology. In Haraway's pursuit of a techno-inspired feminist politics, her cyborg functions as a circuit-breaker to strategically disrupt an established line of thinking that locates women as irrevocably estranged from technology. This is typified by the writing of feminist scholars such as Judy Wajcman (1991), who takes the position that technology's origin in warfare and a destructive military economy promulgates a masculinist culture, and hence proves incompatible with a feminist politic. Similarly, Cynthia Cockburn writes of work and technology as strategic tools used by men to maintain power over women (Cockburn 1991). She considers technology in the sexual division of labor in the workplace as follows: '(t)he technical competence that men as a sex possess and women as a sex lack is an extension of the physical domination of women by men' (Cockburn 1985: 7). Like early debates surrounding reproductive technologies, the association between women and technology is configured as an unlikely and unproductive coupling that situates women at the receiving end of technology's threat to humanity (Arditti, Klein and Minden 1984; Spallone and Steinberg 1987). In this scenario, technology proves detrimental to women whose ultimate status is to be controlled, rather than controlling subjects. From this perspective, technology fulfills its dystopic potential as a dominating and governing force, coded masculine, over an immutable nature which is coded feminine.

Wajcman's position is in keeping with a broader trend of theorizing the relationship between technology and society as either beneficial or detrimental to humanity. For example, scholars such as Theodore Rozak and Arthur and Marilouise Kroker adopt a dystopic approach to techno-human relations, signaling the dangers of technology to our sense of self, being and existence (see Rozak 1970, Kroker 1996). Others, such as Howard Rheingold (1991) and Bill Gates (1995) espouse an uncritical and utopian rhetoric of technology as potentially beneficial to all humanity, thus failing to assess who new technologies may serve and to what means (Jones 1995). Despite her essentialist coupling of women with nature, Wajcman's project succeeds in displacing the established coding of woman as a technological threat by placing women 'outside' of technology, and thus aligning them with nature and passivity.

One of the early cultural sites where the notion of technology as a feminized threat is enacted and represented is the 1927 Fritz Lang film, *Metropolis*. In his analysis of the film, Andreas Huyssen postulates that male vision constructs the woman's body as a destructive technological artifact, thus woman becomes an object of male manipulation and control, and is denied an autonomous identity (Huyssen 1986: 75). The gendered assumptions inherent in a definition of humanity and subjectivity see women 'othered' paradoxically as both nature and technology, thus exploitable and subject to masculine mastery. Accordingly, the masculinist projection of women vis-à-vis technology and nature establishes the woman-machine as a double threat to rational patriarchal order (Huyssen 1986: 71). Like Freud's 'dark continent', the feminized 'black box' of technology occupies the status of uncontrollable and unknown territory, replaying the male castration anxiety and thus legitimating the mastery and domination of the nature/technology/woman triad by male reason.

Feminist film theorist Mary Ann Doane also interprets the technological narrative as one of social anxiety towards technology that is subsequently displaced onto the feminine. In the wake of Huyssen's analysis, Doane considers a series of contemporary science fiction films to argue that the link between the technological and feminine does not necessarily rely upon an image of the woman-machine. Rather, the terror of femininity is inscribed within symbolic systems, manifesting via the representation of technologies of reproduction (Doane 1990).⁴ Emerging forcefully in both Huyssen and Doane's scholarship is the reiteration of technology and women as incompatible entities, whereby 'representations of technology...work to fortify — sometimes

desperately — conventional understandings of the feminine' (Doane 1990: 163). This approach to representational practice limits an analysis of the posthuman because it assumes systems of meaning, or codes of signification, structure meaning as intrinsic to an image. By taking into account the representational economy in which images circulate, *Transformations* offers a mode of configuring representations of the posthuman that challenges the limits of signifying practice to generate new understandings of the subject, rather than contain formations of identity and gender within established categories.

Feminist analyses of the gendered nature of technology have provided a much needed critical intervention in a male dominated debate where the machine is equated with the feminine while remaining the exclusive domain of the masculine (Jardine and Feher 1987: 156). I argue that such a critique reinscribes liberal-humanist assumptions of a universal and masculine self, where technology serves to augment the Enlightenment disassociation of mind from matter, male from female, in a transcendence and transgression of bodily confines. In his analyses of the formation of the subject, Michel Foucault reminds us that 'the extent to which a type of philosophical interrogation — one that simultaneously problematizes man's relation to the present, man's historical mode of being, and the constitution of the self as an autonomous subject — is rooted in the Enlightenment' (1984b: 42). Thus an interrogation of the advent of the posthuman from the place of the present is both informed by, and in part historically determined by, the Enlightenment (Foucault 1984b: 43).

A genealogy of the posthuman avoids a singular interpretation of the posthuman within a historical narrative of the Enlightenment quest to understand the nature of humanity. In accordance with a genealogy that disrupts a linear account of history and subject constitution, an approach to the posthuman figured in terms of the social, political or biological 'evolution' of the modern self is rejected. It is not the purpose of this thesis to argue that the posthuman is that which supercedes the human subject, but rather to advocate the posthuman as a figuration that resides beyond signifying practice, and thus creates the possibility of transforming identity politics predicated upon self/Other relations. Thus rather than undertaking a comprehensive analysis of the various strands of humanism, I briefly consider the humanist project as a means of understanding the formulation of dichotomized masculine and feminine subject positions that underpin the current feminist dialogue on technology.

⁴ The films analyzed by Doane include *Bladerunner* (1982), *Alien* (1979) and *Aliens* (1986).

Humanism decrees the subject to be whole, self-constitutive, and forged prior to *his* experiences within the social world. More specifically, Enlightenment humanism, as it is manifest in the scientific and philosophical writings of Locke, Hume, Kant and Rousseau, is a project whereby human life and existence are shaped according to reason. In this schema, the human subject is understood as an autonomous entity, unaffected by the socio-historical and cultural forces impinging on the corporeal and everyday actions of the self. Alexander S. Kohanski (1977) situates the subject within the Enlightenment project to discover man's essence via an exploration and awareness of the self. Predicated upon an ethic of individualism, self-mastery and universalism, the Enlightenment subject transcends historical and social contexts in an attempt to understand the fundamental characteristics of humanity. Unaffected by social context, the Enlightenment subject becomes the primary locus of existence — immutable, unchanging and unaffected by the specificities of location, history, and culture. The modern self is posed as 'one that contains the ground of intentional consciousness as an inherent property, it is a self that is "self constituting" in being itself "the source and agent of all meaning" ' (Marshall cited in Prado 1995: 54).

Genevieve Lloyd offers a feminist critique of Enlightenment thought, arguing that the conventional understanding of being is intimately associated with fundamental assumptions concerning reason, rationality and maleness. Throughout her keynote text *The Man of Reason: 'Male' and 'Female' in Western Philosophy* (1984), Lloyd confronts and unpacks the gendered assumptions linking Enlightenment values of reason to the construction of the human as an implicitly male subject. According to Lloyd, the universality of reason, while challenged by relativism, is the defining feature of contemporary philosophical interrogations of the self. She notes that:

Reason has figured in western culture not only in the assessment of beliefs, but also in the assessment of character. It is incorporated not just into our criteria of truth, but also into our understanding of what it is to be a person at all, of the requirements that must be met to be a good person, and of the proper relations between our status as knowers and the rest of our lives (Lloyd 1984: ix).

In locating reason as the pre-eminent characteristic of the Enlightenment model of being, Lloyd is responding to the formulation of reason within a hierarchical logic of binary difference. She argues that rational knowledge, constructed as the transcendence, antithesis and domination of natural forces according to dialectical thinking, subsequently determines the status of the gendered subject (Lloyd 1984: 2).

Complementing Lloyd's argument from the position of the mind/body split, Elizabeth Grosz highlights the dualistic modes of thought that structure traditional notions of subjectivity. For Grosz, the dichotomization of masculine and feminine subject positions is implicitly tied to a mind/body relation prevalent throughout the history of philosophy. Grosz describes this relationship as mutually exclusive, whereby the mind is a conceptual entity, positively associated with reason, culture, public, self, subjectivity and masculinity. Incompatible with the mind is its non-conceptual binary opposite: the body. As the negation of the mind, the body, along with its correlates of passion, nature, private, Other and femininity, is relegated to the status of 'object' (Grosz 1987: 4). Grosz makes clear the connection between women and the body when she writes: 'Thus excluded from notions of subjectivity, personhood or identity, the body becomes an "objective", observable entity, a "thing" ' (Grosz 1987: 5). By extension, so does woman come to define all that is not-human, fixed to a corporeal and natural, essential state. Similarly, Helene Cixous attributes the non-existence of woman to the dual and heirarchized nature of oppositional thinking that sustains phallogocentrism via the activity/passivity divide (Cixous 1980: 91). In exposing the constructed nature of gendered oppositions, feminist critiques of dualistic thought serve as political gestures to displace phallogocentrism as the foundation of humanist subjectivity and reclaim the status of the female subject. This crisis of the modern subject informs not only feminist endeavors to assert female subjectivity, but throws into question the very origins of selfhood upon which human existence is grounded.

With this feminist revision of the Enlightenment subject in mind, it becomes evident that the most productive element throughout feminist critiques of technology is the ongoing attempt to refigure the notion of the human via a challenge to the dualisms of philosophical thought structuring human identity. The ambiguity that arises from technologies that collapse the distinctions between nature and artifice, mind and body, organism and machine, in the work of writers such as Haraway, thus offers the potential for new formations of subjectivity. In arguing that immutable and universal notions of nature, the body and technology no longer exist, the liberal-humanist subject constructed within and by these categories is also made redundant. Haraway's call for strategic alliances between women and machines in the figuration of the cyborg has been taken up and promulgated by the cyberfeminist movement.

Cyberfeminism responds to the notion of women and technology as incompatible by disturbing the parameters that define categories such as organic and inorganic, nature and machine, man and

woman. Although this strategy has been valuable in contesting gendered oppositions and promoting new affinities, subjectivities and identities, it simultaneously retains a binaristic value system that configures technology as either beneficial or detrimental for women. The rest of this chapter investigates how technology has been positioned as an affirmative tool for women and its implications for refiguring the body.

A well-known advocate of cyberfeminism, Sadie Plant argues for a radical break with traditional perceptions of technology and femininity. Contesting the negative associations between women and technology *from the site of difference*, Plant revalues the traditional coding of woman as a threatening Other. The notion of women as incompatible with technology is revised by Plant who claims that women are in fact more suited to the new economy of the digital (1996). Woman's difference, illusory nature and artifice, are equated with the outlaw zone of cyberspace. For Plant, '(c)yberspace is the matrix not as absence, void, the whole of the womb, but perhaps even the place of woman's affirmation' (Plant 1995: 60). Hers is a productive difference; a subversive strategy located within phallogentrism's technological stronghold that undermines the very illusions of power and difference upheld by masculine musings on technology. As Plant aptly puts it, '(I)ike woman, software systems are used as man's tools, his media and his weapons; all are developed in the interests of man, but all are poised to betray him' (1995: 58).

Luce Irigaray's politics of a productive feminine difference, and more specifically, her writings on the mimetic qualities of woman, inform Plant's reading of the convergence of woman and machine. In reclaiming a space for women to occupy the masculine domain of technology, Plant suggests that woman, like the computer and cybernetic system, is a simulation mechanism, performing and imitating the self in a political gesture that usurps the categorical construction of woman as nature (Plant 1995: 58-9). In this regard, my position that the posthuman is a product of simulation culture shares similarities with Plant's theories. Yet while Plant constructs the relationship between women and technology as a productive and subversive alliance, the posthuman makes no such assumptions. In a posthuman landscape, technology is neither friend nor foe, but exceeds such signifying codes to emerge as a possibility or potentiality to refigure bodies and identities outside of self/Other relations.

The project of reasserting embodied experience in accounts of subject formation and technology, particularly in cyberspace, has been prevalent in feminist challenges to phallogocentric liberal-

humanist theories of the subject.⁵ In the tradition of the cyborg, cyberfeminists endorse a productive and positive relationship between women and machines. Enacted through the work of digital artists like VNS Matrix, and online publications such as *geekgirl*, a cyberfeminist sensibility is characterized by a disruption of the traditional coupling of technology and masculinity. Cyberfeminism has been fundamental to contesting the ideological associations between masculinity and technology through its revaluation of women and the body in a technological landscape hostile to a fleshy corporeality associated with the feminine. It advocates female empowerment through the use of technology and the process of self-representation. By endorsing cyberspace as female space, cyberfeminism strives to inaugurate a female subject in a phallo-technological landscape.

One of the central concerns arising from a feminist reclamation of cyberspace is the disappearance of the material body in the virtual landscape. Such anxieties are indeed valid considering the gendered values inscribed in technology and nature. Zoe Sofia observes that technology occupies the revered status of utopian tool for phallocentric culture to transcend corporeal embodiment while it is concurrently coded as a womb-like feminine space to be penetrated and controlled (1992: 16). The desire to transcend bodily confines via technology is in keeping with the masculinist fantasy to escape the limitations of a corporeality coded 'feminine'. A techno-utopian masculinist rhetoric envisions the human merging *with* the machine. Rather than technology acting as a threat to humanity, it assists man in his endeavors to transcend bodily limitations, and hence attain a pure state of selfhood. Evidently, this desire is grounded in a fear of the feminine and its associations with the body and abjection that threaten the primacy of rational humanism. By becoming like the machine, man may control and contain the body, and accordingly, nature and the feminine. Mind, like information, is privileged over matter and materiality, as Hayles has articulated.

Plant's proposal to bridge the division between technology and the feminine reinserts the body into technology and disrupts the myth of the natural body grounded in a notion of origins. Yet not all feminists are convinced of the liberatory potential of technology for women. The work of Anne Balsamo suggests a different approach to body/technology relations. In a similar vein to Hayles' embodied posthuman, Balsamo advocates a materialist foundation to the subject's engagements with technology. She claims that 'the material body remains a constant factor of the

⁵ This is consistent with the objectives of feminist theorists of the posthuman, as evidenced in the prior discussions of *How we Became Posthuman* and *Posthuman Bodies*.

postmodern, post-human condition. It has certain undeniable material qualities that are, in turn, culturally determined and discursively managed; qualities that are tied to its physiology and to the cultural contexts within which it makes sense, such as its gender and race identities' (Balsamo 1995: 220). Similarly, Susan Hawthorne responds to cyberfeminist celebrations of the techno-human by asking us to recognize the importance of the 'real world' over virtual enactments. She is sceptical of a virtual, decontextualized cyberspace that poses a threat to the reality of women's lived existence (Hawthorne 1999). Not only does Hawthorne assume that women maintain a privileged relation to the real over the virtual, but she upholds an unproblematic notion of the real and the real body (Hawthorne 1999: 217).

I suggest that a feminism that celebrates the coupling of women and technology, and one that opposes it, both serve as political gestures to revalorize the feminine, yet risk replaying the binary dualisms that associate women with nature and the body. Within my analysis, I resist revisiting debates concerning technology, embodiment, corporeal subjectivity and sexual difference in order to move beyond what Grosz explains as an 'emphasis on women's particular corporeal experiences' and the fixity of gendered identity (1987: 14). As Hayles' exploration of the cybernetic paradigm indicates, the con/fusion between the corporeal and the cybernetic does not necessitate an absolute obliteration of bodily materiality.⁶ Rather than fearing the obsolescence of a material body through technological transcendence, I prefer to adopt an approach that considers the context in which posthuman representations circulate and the implications that an economy of simulation might have for how the self, the body and gender are understood.

As I re-evaluate the posthuman from a feminist perspective, a survey of the various debates regarding women's relationships to technologies uncovers a profound gap between the proponents of technology as beneficial, and those who deem it detrimental for women. In the project of revaluing technology and the feminine, an affirmation of the woman/technology relationship employs a deterministic 'pro-technology' approach that aligns technology with women's values and interests. This suggests that technology exists as a neutral tool outside of practices of signification upon which a traditional 'masculine' set of values may simply be substituted for 'feminine' values, paying little attention to the historical, social and cultural specificities informing the manner in which technology, the human and gender interact. This is in

⁶ According to Hayles, the posthuman is predicated upon the formation of subject constitution via the human relationship with technology that does not necessarily require the invasion of the corporeal by non-biological components (Hayles 1999: 4). This is in keeping with the function of the figuration as a site for re-imagining subjectivities that does not demand a physical transformation at the site of the body.

keeping with a vision of technology Andrew Feenberg identifies as 'instrumental' (1991: 5-6). Feenberg, however, distinguishes this from another approach to technology as 'substantive'. A substantive theory defines technology as a force that shapes the ways in which society and self experience the world, and is typified by the writings of Heidegger.

According to Heidegger, the modern subject is faced with the possibility that external forces may prefigure and determine those actions which he claims as autonomous and constitutive of his position as subject. Heidegger addresses this problem in his highly influential 'Question Concerning Technology' (1977), which poses the question of technology's essence in order to examine and reveal the nature of being. What Heidegger calls technology's *Gestell*, or enframing, is the process by which the nihilistic and totalizing tendencies of technology make absolute the definition of man's being. Thus for Heidegger, technology's status is not that of a neutral device utilized by man in his endeavor to control, master and know the self and the world. Rather, the seamless and unity of the Enlightenment subject as self-knowing is called into question by *Gestell*. While technology may enframe objects by bringing them into being for human resource, man too is enframed by technology as an object to be used and manipulated.

Disempowered as such, the subject no longer masters technology and nature, but becomes another resource in the service of technology, or 'standing reserve' (1977: 298). Heidegger speaks from the discourses of technology, presenting the subject as de-humanized by technology's invasion of human integrity. A point of crisis ensues for the subject whereby man relies upon technology in order to master the threat of nature/Other and formulate his understanding of the world, yet concurrently technology as 'other-than-human' threatens his very existence. From this tension emerges a new understanding of the subject; 'a decentred form of explanation' (Rothfield 1990: 124) that acknowledges subjectivity to be constituted within and by socio-historical and cultural determinants. As Hubert Dreyfus' interpretation of Heidegger suggests, the agency that humans can assert is not one of mastery and domination over nature and technology, but the possibility of re-thinking traditional values in order to transform our perception of reality and understanding of being (Dreyfus 1993: 307).

Heidegger's substantive approach to technology is in accordance with post-structural endeavors to refigure the subject as decentralized and destabilized, although for Heidegger, the loss of the subject to technology's control is cause for lament. Most importantly, however, Heidegger's revision of the subject allows us to recognize the historical conditions and social contexts through

which technologies alter our perceptions of self, body and identity. While for Heidegger the human subject is decentred by his relationship with technology, the psychoanalytic viewpoint of Lacan offers a theory of the split subject to displace the Enlightenment notion of intentional consciousness as the locus of being.

Contesting the notion of the undifferentiated and archetypal subject of the Enlightenment from the site of psychoanalytic theory, Jacques Lacan contends that the subject is a formation of unconscious processes prior to the potentiality of self-awareness. The unconscious is deemed formative to the production of identity, over and above reason. Lacan questions the unity and coherence of the subject, as he reconsiders its formation prior to entering the symbolic world. Fragmented and uncoordinated, the subject of the mirror phase is 'split' between its sense of alienation experienced as separation from the m/other and the anticipation of a unified self, recognized as whole in its mirror image (Lacan 1977: 4). Concomitantly, identifying the self in the mirror is a process of mis-recognition, in that the Other of the mirror image is merely an imaginary relation of the self in the real world (Lacan 1977: 4).

This split in the subject during the mirror phase forms the basis of the human ego and serves as a precursor to the Oedipal process required for the specular 'I' to become the social 'I'. In this scenario, subjectivity and identity are neither pre-given nor universal, but are positioned and formed at the critical juncture where the subject enters the symbolic domain of language, law and culture. It suggests that subjectivity is a construct motivated in equal parts by the unconscious (the mirror phase) and the social (the Oedipal complex). Thus the subject is decentred from the locus of being, in favor of positioning within the psychoanalytic, social and linguistic orders.

Psychoanalysis structures the subject and identity as split between a masculine self and threatening feminized m/other who symbolically evokes the fear of castration. And it is from this concept of the split subject that the sexually differentiated subject arises. Feminist accounts of psychoanalytic doctrine deem this splitting of the subject not simply the basis of the ego, but the site at which sexual identity and roles are constructed and enacted in a social world. In their interpretation of the resolution of the castration complex, Rowley and Grosz reaffirm that 'Lacan removes the question of sexual identity from the realm of biology to place it crucially in the field of signification: the subject's sexual identity is an effect of its position in the symbolic order' (1990: 284).

To be a subject in Lacan's schema, is to experience desire in terms of lack. The Other becomes the object of desire. For Rowley and Grosz, it is woman who functions in relation to the phallus simultaneously as lack and excess, associated with the imaginary order as the site of pure difference (1990: 286). The object that is desired cannot be located in either imaginary or symbolic realms. Rather, it is located in what Lacan terms the real — a site of impossibility, where desire can never be fully satisfied. No singular or objective notion of reality can exist outside the self. Instead reality may only be identifiable as that which is experienced in an embodied context. In terms of signification and representation, the real is unrepresentable, beyond meaning and signification.

Post-structural formations of the subject encourage a consideration of the socio-cultural forces that inform the relations between gender and technology. One such proponent of this approach is Sherry Turkle, who shares aspects of both Lacan's and Heidegger's theories of subjectivity as forged through encounters with the social. Turkle, however, manages to avoid a fatalism that decrees the subject as enframed by technology. In this regard, she circumvents the debates that position technology as a neutral tool to be appropriated productively by women, or used against them. Rather, Turkle's scholarship seeks to explain how computer culture poses alternative means of thinking about subjectivity and the self.

In the landmark text *The Second Self: Computers and the Human Spirit* (1984), Turkle documents the responses of children, adolescents and adults interacting with new digital communications. This ethnographic study highlights how humans perceive themselves in the wake of new digital technologies and raises fundamental philosophical questions regarding metaphysics, mastery and identity in the digital age. Her approach challenges the status of the human subject by arguing that the advent of computer culture forces a radical re-thinking of who we are and the nature of being human. Central to her analysis is the question of subject predication and identity in relation to an emerging computer culture. As she explains:

Technology catalyzes changes not only in what we do but in how we think. It changes peoples' awareness of themselves, of one another, of their relationship with the world. The new machine that stands behind the flashing digital signal, unlike the clock, the telescope, or the train, is a machine that "thinks". It challenges our notions not only of time and distance, but of mind (Turkle 1984: 13).

Rejecting a dichotomized projection of technology, Turkle assesses the impact of technology on subject formation in terms of the diversity of relationships individuals may occupy to the

computer. Technology per se is neither good nor bad. Rather, it serves as a means by which the self may be articulated. For Turkle, 'the machine can act as a projection of part of the self, a mirror of the mind' (1984: 15), or as she later states, 'computers enter into the development of personality, of identity, and even of sexuality' (1984: 15). This is not to imply that the computer serves as a passive screen or neutral entity upon which the self is played out. Instead, it is an individual's self-perception and relationship to the world that is radically altered via the virtual medium.

In a challenge to Enlightenment theories of the subject, Turkle re-examines questions of determinism and free will in relation to technology and machines (1984: 23). In doing so, she poses an alternative means of thinking about the self that is no longer confined to liberal-humanist accounts of identity formation. As noted earlier, Lacanian psychoanalytic accounts of subject formation posit language as the defining feature in the constitution of the 'I'. Subjectivity is the result of a process whereby the split subject situates the self within the social world of language, law and culture. This suggests that the subject is not ready-made or pre-given, but a fragmented entity constructed in and by the linguistic order. The decentred self played out in post-structuralist and psychoanalytic analysis is made real for Turkle in the engagement of humans with computers. Elucidating her experience, she writes:

In my computer-mediated worlds, the self is multiple, fluid and constituted in interaction with machine connections; it is made and transformed by language; sexual congress is an exchange of signifiers; and understanding follows from navigation and tinkering rather than analysis. And in the machine-generated world of MUDs, I meet characters who put me in a new relationship with my own identity (Turkle 1997: 15).

Just as psychoanalytic terminology has extended into popular jargon to provide a mode of self-reference with which to articulate and understand personal experience and selfhood, so too does computer interaction offer subjects another mode of discussing the self. According to Turkle, computer culture introduces an alternative set of concepts with which individuals may articulate experience, emotion and a sense of self (1984: 161). Human engagements with the world of virtual reality may offer a space in which to play, reconsider and question the notion of 'I' and the formation of subjecthood within a socio-cultural context (Turkle 1996: 364). The utopian ideal of a virtual space devoid of 'real-life' sexual, racial and economic inequality assumes a privileged position from which to interrogate the self through computer-mediated interaction. Despite this utopian resonance, Turkle's analysis indicates the difficulties of retaining a conceptualization of

the unified subject when the boundaries between the self and technology become indistinguishable.

Turkle's study of computer/human relations makes a vital contribution to thinking toward a posthuman mode of being. An alternative means of theorizing identity is posed; one that recognizes the context, location and embodied experiences, which impact upon the formation of the subject. To be posthuman is to construct a notion of self within a culture of simulation, virtuality and the digital. It is a new mode of existence by which the subject comes into being, as distinctions collapse between nature and artifice, self and computer, virtual and real, animate and inanimate. In this regard, Turkle advocates a subject that is neither unified nor fixed, but constantly formulated and reconstructed through her/his diverse relationships with computer culture.

By examining people of varying age groups and their relationship to computer culture, Turkle uncovers a blurring of the boundaries between where the human ends and the machine begins. The computer is an 'evocative object', that 'seems to stand betwixt and between the world of alive and not alive' (Turkle 1984: 106). This notion of 'self as machine' raises the pivotal question in an analysis of posthuman being: 'what is most essential about being human?' (Turkle 1984: 24). Analogies between the self and machine, as often used by individuals to define their self or emotions, are also a site of conflict. Drawing parallels between computer and human behavior confuses the distinction between organism and machine, so that the very nature of self is questioned. Although computers are used extensively by individuals and offer a means to think about the self, what are commonly defined as essential to the human are the qualities that the computer cannot emulate. Thus for Turkle, 'human' comes to define all that the computer is not (1997: 177). Like Lacan's theory of the subject that secures identity via the process of differentiation from the m/other, the computer serves as an Other from which human identity is defined. Paradoxically, in Turkle's schema an individual's notion of self arises from a simultaneous affiliation to, and disassociation from computers. While suggesting a lack of clear distinction between computers and self, Turkle fundamentally replicates the binaries of real/virtual, human/machine and self/non-self. This proves problematic to a re-thinking of the status of the human subject as a posthuman entity, in that the self remains separable from the machine. Even though technology may impact upon how the self is perceived and experienced, the boundaries between self and Other never collapse; they remain distinct. For Turkle, computer

technology affords a means to reflect upon real life, rather than problematize the very status of the real.

For example, in critically surveying the construction of the self within a culture of simulation, namely the virtual environments of Multi User Domains (MUDS), MOOS and virtual chat-rooms, Turkle suggests the life enacted within the virtual realm often infiltrates the real life of participants. Such experiences have emerged within what Turkle perceives as a broader cultural trend. It is the context of 'eroding boundaries between the real and virtual, the animate and inanimate, the unitary and multiple self, which is occurring both in advanced scientific fields of research and in the patterns of everyday life' that enables a new cultural aesthetic and philosophy of existence (Turtle 1997: 10).

MUDs offer an interactive space where multiple users from vastly different locations and contexts may simultaneously engage in a simulated adventure fantasy. The creation of a social space within the machine provides a fantasy world where individuals may formulate imaginary personas and enact alternative lives. Traditional perceptions of identity are complicated when the distinctions between virtual and real environments collapse and the player's 'real' life is affected by their actions in virtual space (Turtle 1996: 357). An example of this is the phenomena of gender swapping in virtual reality environments. Turtle interprets the practice of virtual gender swapping, enacting a persona of the opposite gender within a MUD, as serving multiple purposes. Firstly, it facilitates consciousness-raising about gender issues (Turtle 1997: 214). By virtually engaging with the concerns faced by individuals of the opposite gender, the user may attain an awareness of gender issues that may subsequently translate to real-life situations. Secondly, a female playing a male character, or vice-versa, exposes gender as a construct. Turtle's interviews with participants who play a character of a different gender further suggest that the act of gender swapping serves as a 'vehicle for self-reflection' (1997: 219) and gives 'people greater emotional range in the real' (1997: 222).

Despite the evident crossover between virtual and real domains in a MUD scenario, Turtle retains the notion that MUDers perceive their engagement with virtual reality (VR) as a means to gain a greater truth regarding the real (1997: 216). Rather than contesting the distinction between virtual and real life, Turtle maintains a dualistic perception of the two domains. In refiguring this problematic, I propose that a more effective means of configuring self and identity resides in contesting the very status of real and virtual, machine and organism, self and Other. It is within

an image culture of simulation that the categories of embodied experience collide with virtual experience so that the two are no longer separable. As I establish in the following chapter, it is within a representational economy of simulation and the digital that a posthuman, post-gender existence emerges.

The theoretical perspective offered by Turkle encourages one to think through the relationships between the real and virtual, nature/machine and human/non-human. Yet in distinguishing between real life and life on the screen, Turkle fundamentally maintains the categorical distinction between the two, albeit complicating the status of each. I wish to formulate an alternative perspective on the phenomena of the posthuman. I establish a way of theorizing posthuman figurations that circumvents a binaristic approach to technology. *Transformations* articulates how posthuman figurations, in the context of simulation, act as sites of unstable signification that confuse traditional understandings of the relationship between women and technology, affording new possibilities for the subject in technology as transformative.

The moment in which I situate the posthuman is the economy and aesthetics of simulation. In the next chapter, I engage with Jean Baudrillard's theory of simulation to explore how it may function as an enabling strategy for a feminist approach to posthuman figurations. If, as De Lauretis maintains, gender is a construct produced within and via the process of representation, the technologies representing the gendered subject also produce that subject (1987: 5). In the case of a representational economy of simulation founded upon the digital, the specificities of digital culture produce a subject whose status as simulation problematizes the originary foundations upon which woman is correlated with the body. By dissolving the association between representation and a material referent, simulation culture offers a space in-between illusion and reality where a multiplicity of potentialities and possibilities for the subject reside.

As a genealogical approach suggests, women's relationships to technology, and their implications for theorizing the self, emerge from numerous varied and often contradictory positions. Throughout *Transformations*, I construct a genealogy of the posthuman through the interplay between and across the writings of Jean Baudrillard on postmodern signification, post-structural feminist analyses of representational practice, and feminist debates pertaining to the body and technology. A genealogical survey of the emergence of the posthuman serves to expose the complexities by which subjectivity is redefined and refigured via the interaction and interrelation of individuals with their technologized surrounds.

Chapter Two

Beyond Signification: Simulation, Representation and the Posthuman

I claimed in the previous chapter that the posthuman is a figuration that disrupts traditional understandings of the relationship between women and technology. In order to assess the cultural implications of posthuman figurations upon feminist understandings of the self, subjectivity and identity, I deploy Jean Baudrillard's writings on simulation as a way of reading the posthuman. This chapter begins by establishing Baudrillard's theory of simulation as the conceptual framework through which to enter into a critical engagement with posthuman figurations.¹ I examine the shifts in how the visual is experienced through technology to substantiate the claim that posthuman figurations offer a strategically useful and productive means of imagining new modes of subjectivity in the digital age.

Charting the representational economy in which images are constructed locates posthuman figurations within ongoing debates regarding reality, representation and subjectivity. Moreover, a critical examination of the changes in representation ushered in by technology highlights the impact of representation upon subject formulation. In developing an analysis of pre-modern, modern and postmodern experiences of the visual, I assert that the visual and the real are understood and experienced in new ways within the representational economy of simulation culture.

The conclusion of this chapter is devoted to contextualizing feminist debates concerning the representation of women within the popular cultural sphere, with the aim of posing Baudrillard's account of simulation as an alternative modality for feminist interpretations and engagements with representational practice. I consider two current feminist modes of theorizing women's relationships to popular culture and mass media representations. This serves the purpose of historicizing feminist interrogations of representational practice, as well as examining the ways popular culture operates from a feminist perspective.

¹ For a lucid introduction to the history of simulation and its contemporary theoretical incarnations (including the theories of Baudrillard alongside those of Debord, Eco and Virilio), see Cubitt, Sean. (2001). *Simulation and Social Theory*, London: Sage Publications.

Baudrillard's theory of simulation describes the economy of sign value within consumer society. The evolution of his writing on the sign can be traced from a Marxist framework that considers the role of the sign as it relates to the formation of the social within capitalist modes of consumption (Baudrillard 1981; 1998a, originally published in 1970). In order to move beyond Marxist-inspired semiotic analyses of representation, I circumvent Baudrillard's early semiological examination of the circulation and operation of sign systems in society. It is Baudrillard's later approach to the production of the social order in terms of the simulation effect that is of interest for a study of the posthuman. In his investigation of the simulacrum as the disappearance of the real, Baudrillard provides the theoretical frame through which I critically engage with posthuman imagery.

As Baudrillard reminds us, the postmodern experience is primarily of the order of the visual. It is within a representational economy of simulation 'swamped by indeterminacy' (Baudrillard 1993: 2) that I locate popular representations of the posthuman as productive figurations for feminist understandings of subjectivity. Sean Cubitt notes that 'simulation is a philosophy of reality and our changing relations within it' (2001: 1). Accordingly, I argue for simulation as a framework for reading posthuman figurations and the experience of society, life, representation and reality as virtual.

For a feminist theoretical project, simulation offers a mode of engaging with images of the techno-human interaction that helps us to understand our present cultural situation. As established in Chapter One, the posthuman figuration is located at the intersection of digital media, biotechnologies and global communications, collapsing and exceeding the boundaries that once differentiated fact from fiction and illusion from reality. According to Baudrillard, in our present culture of third and fourth-order simulation, we can no longer discriminate between once opposing entities such as self/Other and male/female. Dialectics as a mode of understanding self, society and identity is no longer adequate. Consequently, meaning is rendered indeterminate, fluid and unfixed, allowing for conventional gendered understandings of bodies, technology and subjectivity to be refigured. It is at this site of collapse that simulation may operate as a powerful strategy for feminism to engage with posthuman figurations.

Simulation culture emerges, according to Baudrillard, at the point where the law of value predicated upon the 'reality principle' can no longer be upheld:

The reality principle corresponds to a certain stage of the law of value. Today the whole system is swamped by indeterminacy, and even reality is absorbed by the hyperreality of the code and simulation. The principal of simulation governs us now, rather than the outdated reality principle. *We feed on those forms whose finalities have disappeared. No more ideology, only simulacra* (1993: 2, italics in text).

In calling for simulacra over ideology, Baudrillard distances himself from structural relations between the referent and representation established by laws of exchange value. His challenge to traditional understandings of the operations of signification denounces both Saussurean and Marxist models of value exchange as the constituents of social reality. The principle of simulation posed by Baudrillard problematizes an understanding of value that depends upon the dialectical dimensions of language and commodity exchange. This is achieved through the extermination of a system of reference upon which both production and signification depend (1993: 6-7). Thus for Baudrillard, while ideology maintains the reality principle by constructing a false relation between the object and its representation as sign, simulation dissolves the distinction between the two.

Baudrillard locates a shift in social operations. He observes that a new sign system, based in image culture, has replaced Marxist modes of figuring social reality. What constitutes reality, for Baudrillard, is no longer the operations of consumption and production typified by the industrial age, but an emerging order of media, information and technologies. The circulation of signifiers has replaced the exchange and consumption of commodities. In effect, Baudrillard rejects a system of values and meanings based upon laws of commodity exchange for one of symbolic exchange.

In a postmodern culture that is widely influenced by media, new technologies and mass communications, Baudrillard claims that objects are freed from material form to exist only within a network of signs. The process of symbolic exchange is described as:

a gigantic simulacrum — not unreal, but a simulacrum, that is to say never exchanged for the real, but exchanged for itself, in an uninterrupted circuit without reference or circumference. Such is simulation, insofar as it is opposed to representation (Baudrillard 1994: 6).

By repudiating traditional theories of social operations predicated upon the value relation between object and sign, Baudrillard asserts that the proliferation of signs and images in post-industrial society ensures that signs are no longer exchanged against a real, but may only be exchanged

against each other (1993: 7). In short, signs exist and derive value in their relation to other signs. The value of a sign cannot be traced back to a real object in the real world. The sign fails to operate as a reflection of reality and is thus liberated from any external or material referent in a process that Baudrillard terms the 'emancipation of the sign' (1993: 7).

Baudrillard's strategy yields the revolutionary possibility of the liberation of meaning from the sign. The sign no longer refers to an external reality, and cannot be understood as a relation between reality and representation. As a result, the dialectical definition of the real against representation is destabilized, creating an indeterminacy of meaning to replace the determinacy of the signification. Moreover, Baudrillard claims that the quest for meaning becomes irrelevant in a context where media, the masses and the spectacle are indistinguishable. It is these 'forms whose finalities have disappeared' (Baudrillard 1993: 2) that now constitute the value system of a postmodern techno-society and inform our experience of the visual.

Simulation theory offers a mode of understanding society, which exists outside of the reality principle, making possible a transformation in how representation and subjectivity are theorized. Baudrillard is aware of the connection between the circulation and operation of the sign and the interpretation of images. He outlines three orders of the sign that correspond to three significant shifts in viewing experience — the pre-modern, modern and postmodern. This classification of value systems offers a framework through which to explore how the experience of vision impacts upon understandings of subjectivity. Distinguishing between the orders of simulacra at this juncture assists in clarifying how the contemporary experience of the image differs from earlier relations between representation, meaning and subjectivity. If the posthuman manifests within the order of the hyperreal, as I argue, then simulation affords a new way of engaging with posthuman figurations, a way that exceeds structural equations between a referent and reality. Simulation is the third order of simulacra that Baudrillard names in the production of the image. Accompanying the third order of simulation are the first order of the counterfeit, and the second order of production.

The first-order simulacrum corresponds to the period from the Renaissance to the Industrial Revolution. Baudrillard identifies the counterfeit as the dominant mode of representation during this time, describing its operation as the '*imitation of nature*' (1993: 54, italics in text). Functioning by analogy to an original object, the first order of the sign thus maintains the difference between origin and referent, artifice and nature: 'value developed on the basis of a

natural use of the world' (Baudrillard 1999: 5). The second order of signs sees the original referent abolished by a process of infinite reproduction, made possible by industrial mechanization. Exchange value is the dominant schema of the commodity stage. The difference between the first and second orders is explained by Baudrillard in terms of analogy and equivalence. Both are orders of artifice that maintain a notion of the real, with the first order being the 'counterfeit of man where the technique is to submit everything to *analogy* and to the simulacrum-effect' (Baudrillard 1993a: 53, italics in text). In contrast, the second order is dominated by 'a technical principle where the machine has the upper hand, and where, with the machine, *equivalence* is established' (Baudrillard 1993: 53, italics in text).

In the third schema, the equivalence of serial production is superseded by an order of structural value. Third-order simulacrum sees the code as the 'new *operational configuration*' of the production of the image (Baudrillard 1993: 57, italics in text). The only point of reference in the third phase is the model, from which all forms manifest (a concept I return to later). Baudrillard has also identified a fourth order of signs; the order of the fractal or virus. This stage of value is typified by the abolition of all points of reference. As Baudrillard states:

At the fourth, the fractal (or viral, or radiant) stage of value, there is no point of reference at all, and value radiates in all directions, occupying all interstices, without reference to anything whatsoever, by virtue of pure contiguity (Baudrillard 1999: 5).

How might visual images be interpreted in a context where no point of reference exists? What are the political implications of this upon theories of subjectivity? The advent of digital media presents a challenge to visual representation as it has been theorized from the Renaissance, through modernity and the advent of photography. Unlike the Renaissance construction of a one-to-one relation between reality and its representation, or the mechanical reproducibility of analogue photography that retains an association to an objective reality, digitization problematizes a representational economy predicated upon notions of the 'original' and the 'copy'. As Baudrillard has indicated, the emergence of new technologies sees the laws of value understood in terms of reference to nature (first-order simulacrum), commodity (second-order simulacrum), the code (third-order simulacrum), and the fractal (fourth-order simulacrum).

While Baudrillard presents the orders of the image sequentially, the introduction of a new order does not necessitate the abolition of the old. Instead, they may function simultaneously, with particular orders constituting the dominant schema during their corresponding cultural eras.

Baudrillard explains these formal distinctions in terms of particles, whereby the discovery of a new particle 'does not replace those discovered earlier: it simply joins their ranks, takes its place in a hypothetical series' (Baudrillard 1999: 5). The contemporary experience of the visual, I suggest, is no longer locatable via a link between the original object and its reproduction, but may be better understood in terms of Baudrillard's theories of the simulation model and fractal pattern.

The emergence of new technologies corresponds with changes in representation and how visibility and reality are understood and experienced. Much has been written about the virtual dimension of the digital age creating a different mode of being for the subject. And while the rhetoric of transformation, speed and newness is often associated with contemporary and futurist digital technologies, debates surrounding the subject of modernity suggest this has long been the case. The impact of technology upon the status of the human has concerned many thinkers throughout modernity. Although current narratives of digitization suggest new modes of being, seeing and experiencing the world, technologies such as virtual reality are perhaps as Geoffrey Batchen claims, 'not something peculiar to a particular technology or to postmodern discourse but...rather one of the fundamental conditions of modernity itself' (1996: 28). Modernist precedents inform a reading of the subject as transformed by social, scientific and technological phenomena. By establishing a dialogue between modern and postmodern theories of representation, I locate the posthuman within an ongoing economy of technological representation, beginning with the viewing technologies of the Renaissance.

The refiguration of the subject associated with the advent of electronic networks is preceded by a history of representation and viewing dating back to Renaissance times. Technologies of visualization, such as cinema and photography, are informed by codes of perspective established in the Quattrocento that aimed toward 'the immediate translation of reality in itself' (Heath 1981: 30). Attempting to break from the flatness and surface of Medieval imagery, Renaissance vision championed a realism and solidity of form that denounced the metaphysical, superhuman and quasi-iconic images of the Middle Ages. What resulted was an experience of vision as a one-to-one correspondence between 'reality' and its 'representation'.

Fundamental to this new style of depicting the world was the implementation of a geometrical perspective that privileged a central vanishing point. By drawing the eye toward the centre of the image, one-point perspective created a balanced, harmonious, homogenous and unchanging space. The Renaissance rendering of the image was not so much a mirror or reflection of reality,

but a space constructed to reproduce the dimensions that a single, unmoving eye might see (Panofsky 1991: 29). In this sense, any attempt to translate reality is revealed as a flawed one, as the experience of viewing is determined by the psycho-physiological space of the subject, coupled with the fact that the world is seen through two moving eyes (Panofsky 1991: 31). What Renaissance perspectival space created for the subject was, according to Erwin Panofsky, 'an objectifying sense of the real'; an image of the world as ordered, solid, grounded and rational, through the use of mathematical principles (1991: 67). Accordingly, the self was positioned as a coherent, unified entity in this ordered visual world. Simultaneously, the advent of perspective created a sense of endless infinity within the depiction of a systemized external world, functioning as 'an extension of the domain of the self' (Panofsky 1991: 68). These dual aspects worked to *create* the illusion of a rational world-view grounded in the objective lens of the all-seeing eye, rather than to *reflect* a given reality.

Technologies of visualization constituted by geometrical formulae and various perspectival machines thus contributed to the emergence of a rational view of space in the Renaissance. An experience of the visual was based upon recreating human perception and constructing a one-to-one correspondence between the real world and the representation of space (Manovich 1996: 230, Veltman 1996: 220). Indeed, the technical apparatuses employed by artists of the Quattrocento were precursors to the viewing technologies that emerged during nineteenth-century modernity and those preceding photography such as the camera obscura, stereoscope and phenakistiscope (Crary 1992: 16).²

The emergence of modernism in the nineteenth century signaled the next significant cultural and social shift in the experience of vision and the relationship between representation and the subject.³ The specific conditions of the nineteenth-century urban metropolis (the architecture of shopping malls and arcades, transport such as rail, steamboat and automobile), caused a transformation in the subjective experience of temporality and spatiality and the experience of

² While the camera obscura was developed in the Renaissance, the first documentation of the optical principles underpinning the camera obscura is to be found in the writings of Aristotle. This knowledge was passed on through eleventh-century Arab scholars to form the basis of the viewing technologies of the Quattrocento. See Gersheim, Helmut. (1965). *A Concise History of Photography*, London: Thames and Hudson, 10-11.

³ David Macey observes that 'the idea of modernity always implies that of a break with or departure from something earlier, and "modern" is often used as the opposite of "traditional" ' (2000: 259). Macey reminds us of the different traditions of the new by distinguishing between historical understandings of modernity in the Renaissance, seventeenth-century enlightenment period, and modernity of the nineteenth

vision. In the context of new urban technologies and industrialization, the rational world view and one-point perspective of the Renaissance was replaced by a mobility of vision suited to modern city life and its ensuing characteristics of uncertainty, flux and movement.

The experience of modernity, as argued by Marshall Berman, emerges from an environment that promises both 'adventure, power, joy, growth, transformation of ourselves and the world — and, at the same time...threatens to destroy everything we have, everything we know, everything we are' (1982: 15). The ensuing implications for the subject of modernity are immense, creating a subject caught within a dialectic offering both the radical potentiality of transformation, and its flipside — the loss of the real and a coherent notion of selfhood, identity and place in the world. This new modernist sensibility, like the debates concerning the subject of electronic networks, produced a new way of seeing and experiencing space and life.

The subjective experience of modernity is typified in the figure of the *flâneur* (Baudelaire 1964). A panoramic style of observation embodied by the *flâneur* relied upon the movement of the inherently male viewer through public space and was intimately associated with the transformation of public life and modern consumer culture (Buck Morss 1986: 105). By walking through urban space, the *flâneur* dismantled the harmonious configuration of Renaissance one-point perspective and the immobility of the subject. In its place, a modern experience of vision was formulated to accommodate the radical changes and flux of an urban experience. This, in turn, ushered in a perception of the subject as fluid and mutable. As the *flâneur* figure of the urban nineteenth century exemplifies, cultural and technological shifts radically affect the aesthetics of reception, creating, in the instance of modernity, a vision of the world and the subject as destabilized, uncertain and ambivalent.⁴

While urban technologies contributed to the modern experience of vision, they also played a significant role in the construction of gender. For example, while the *flâneur* signaled an active, masculine style of observing modern life, women occupied public space primarily as objects of consumption for a male viewing subject — namely as prostitutes (Buck Morss 1986: 119). Women were denied the viewing status of the male *flâneur* due to the gender distinction

century. See Macy, David. (2000). *The Penguin Dictionary of Critical Theory*, London and New York: Penguin, 259-60.

⁴ Benjamin has portrayed the modern city, with its crowds, speed and urban flows in terms of the shock of new stimuli upon the *flâneur* as viewing subject (1968a: 176-7).

determining the occupation of public and private space.⁵ As Gillian Swanson points out in her article '“Drunk with Glitter”: Consuming Spaces and Sexual Geographies' (1995), however, the prostitute transgressed the sphere of the private to illegitimately occupy the public, masculinized space of modernity. Accordingly, women who invaded the public, masculine domain were construed as deviant and pathological. Swanson argues that:

in the second half of the nineteenth century an exchange develops between the meanings of prostitution — embodying working-class urban femininity — and those of the middle-class female consumer, establishing the two ends of a spectrum of pathological sexuality whereby women in general become identified as a disturbance to public life (Swanson 1995: 82).

For Swanson, the female consumer of modernity comes to signify urban pathology (1995: 80).

'It was as a consumer that the *flâneuse* was born', claims Freidberg (1993: 34). And it was predominantly the aesthetic experience of the mall that Freidberg argues produced of a new kind of gendered observer intimately tied to consumption and a commodified form of looking. Freidberg's study of the *flâneuse* suggests that women could legitimately occupy public space as consumers. Her analysis grants women the position of viewing subjects in modernity, and in relation to the modern. A commodified form of looking, whereby women moved materially through space and time, offered one mode by which the female visual experience was sanctioned. The other mode of female mobility proposed by Freidberg involved the consumption of technologically mediated visual experiences. Such vision machines created virtual movement through space and time for the viewer.

Freidberg charts the social context and new technologies that influence the process of visualization and the positioning of a female subject, in order to problematize the gendering of the *flâneur*. The survey of the streets conducted by the *flâneur* mobilized the virtual gaze of vision machines such as the panorama and diorama. (Freidberg 1993: 20-31). As a result, Freidberg argues that 'machines of virtual transport (the panorama, the diorama, and later, the cinema) extended the virtual gaze of photography to provide virtual mobility' (1993: 4). This mobilization of vision is crucial to understanding the changing experience of perspective and space with the advent of new technologies and their impact upon the female subject. Just as the

⁵ The gendered distinctions between public and private space are effectively explored by Griselda Pollock in the context of art produced by male and female artists of modernity. See the Chapter 'Modernity and the

consumption of contemporary digital and electronic media challenges the status and boundaries of the body,⁶ the gendered subject of modernism experienced a transformation in both the processes of viewing and subsequent experiences of corporeality. In noting that women's encounters with viewing technologies enable new conceptions of the body, space and identity, Freidberg disrupts traditional formulations of the subject that deny the specificities of gendered experience. In terms of the subjectivity of the observer, the *flâneuse* exists as a modernist precedent of how women negotiate spatiality and temporality within the context of consumer, mass culture.⁷

Photography was another technology of visualization that promoted a new engagement between the spectator and the image. While the panoramic vision of the moving *flâneur* mobilized the gaze so that the spectator actively and physically participated in the shaping of visual surrounds, the advent of photography saw the spectator become increasingly immobile (Freidberg 1993: 28). The camera transformed the visual by creating an image independent of the spectator. By distancing the spectator from the active viewing process, photography encouraged the proliferation of both technology and the image, a proliferation equated with the 'triumph of a mass culture' (Sekula 1986: 4, italics in text). Photography signals a shift in visual experience from notions of an 'original' toward mass reproduction and the copy.

This position is best explained in Walter Benjamin's influential essay 'The Work of Art in the Age of Mechanical Reproduction' (1968b). For Benjamin, the mechanical means of production opens up, for the first time, a way of imitating an original through a copying process. The potential for infinite reproduction of an object by mechanical means offers a democratizing corrective to what Benjamin decries are the outmoded and elitist concepts of authenticity, essence and aura associated with the myth of origins. Reproduction is deemed to function as a

Spaces of Femininity' in Pollock, Griselda. (1988). *Vision and Difference: Femininity, Feminism and, Histories of Art*, London and New York: Routledge, 50-90.

⁶ See the argument of cyberfeminists as outlined in Chapter One of this thesis for the ways in which internet technologies have reconceptualized bodies and corporeality.

⁷ In a feminist methodological tactic to refigure gendered stereotypes of women and consumption, Meaghan Morris' analysis of the space of the contemporary shopping mall bypasses an interpretation of the act of consumption in terms of the objects consumed by women, to instead consider the 'unique sense of place' created within the modernist space (Morris 1993: 318). This contemporary redressing of a female relationship to modernity signals a shift in conceptions of the female observer as consumer, favoring instead to identify the ambivalence and indeterminate relationship of women with the spaces of consumption. See Morris, Meaghan. (1993). 'Things to do with Shopping Centres', In Simon During (Ed.), *The Cultural Studies Reader*, London and New York: Routledge, 295-319.

revolutionary and egalitarian mode of liberation from the tyranny of tradition and authenticity, and the authority that underpinned both (Benjamin 1968b: 220).

Photography, for example, establishes an experience of the visual as a copy that displaces the 'aura', or uniqueness, of the original form. While this results in a challenge to the concept of authenticity, serial reproducibility and the decline of the aura still upholds the distinction between what is real and what is artifice. Whereas the authority of the original is undermined by mass reproduction, it nonetheless retains its status as an original in Benjamin's schema, although 'the quality of its presence is always depreciated' (Benjamin 1968b: 223). Baudrillard's formulation of the industrial simulacrum is heavily indebted to Benjamin's writings on reproduction. Indeed, he acknowledges the centrality of Benjamin's work to his own model of serial reproduction as the dominant system of value of the second order. Baudrillard, however, differs considerably from Benjamin in his formulation of a third order of the image where the very notion of a real and its artificial reproduction collide and implode.

This distinction between the real and the copy is maintained if photography is interpreted as a mechanical means of providing a direct, unmediated image of an external reality. Photography in this context is conceived as complementary to empirical, scientific notions of truth and objectivity. When considered as a triumph over realism, photography enables an accurate recording of reality by mechanical means that permanently fixes an image. The empirical and objective eye of the camera thus ensures 'photography's privileged connection to the world' (Krauss 1985: 28).⁸ In *Camera Lucida*, Roland Barthes observes that regardless of the construction or physical manipulation of the image, photography's status as an image resides in an indexical relation to the real (2000, originally published in 1980).

Barthes discerns two orders of the photographic image, the *studium* and the *punctum*, to explain the operations of the photograph upon the viewing subject. For Barthes, the *punctum* is the 'element which rises from the scene, shoots out of it like an arrow, and pierces me' (2000: 26). While *studium* relies upon established codes and modes of reading and identification with the

⁸ At the same time that photography was being heralded as an indexical tool for capturing an accurate and objective depiction of the world, it was employed to create pictorial effects that focused upon the manipulation of the image using expressive qualities such as light, posing, soft focus and composition. Influenced by art practice, this use of photography created an image, rather than reflecting a given reality. See Bartram, Michael. (1985). *The Pre-Raphaelite Camera: Aspects of Victorian Photography*, London: Weidenfeld and Nicolson. In both instances photography maintained an experience of vision predicated

image, it is the notion of the *punctum* that interests me, as it signals a shift away from structural interpretations of the relationship between reality and its representation to disrupt the unity of the photograph. Although photography maintains an indexical relation to the real, Barthes does not configure this in terms of structural relations, but as a 'kind of subtle *beyond*', where the image 'pricks' the viewer (2000: 59, italics in text). From this perspective, the *punctum* reclaims some element of the essence of the image. This essence is found in the fleeting and transitory existence of the image at one moment in space and time, rather than a concrete indexical relation between image and referent.

Barthes appears to reclaim an 'aura' for the photograph in the form of the *punctum*, which acts as a mystical or subjective device in a culture of simulation posed by Baudrillard. One could argue that Barthes revalues the photographic image, particularly if the photograph is read against digital simulacra. Martin Lister astutely notes that the 'newness' of digital imaging risks creating a false dichotomy between 'new' and 'old' forms of lens based media (1995: 8). Thus the mechanically reproduced copy, proposed by Benjamin to liberate the image from the tyranny of origins, regains its status as 'image' via its connection to the real, over and above the inauthenticity of digital data that cannot ever represent reality. Indeed, Baudrillard attests to the strategy of simulation to generate the illusion of the real, as opposed to the representation of reality.

This brings me to the current stage of the image whereby the visual experience is mediated by digital technologies. I argue that new forms of visual culture ask for another kind of engagement with the real. Unlike earlier modes of figuring the visual, digitization problematizes a representational economy predicated upon notions of the original and the copy. In a culture of simulation, the relationship between the real and its image is not one based upon an opposition of meaning, whereby difference is maintained through a system of dialectics. Simulation does not reproduce reality. Rather, Baudrillard claims that:

all forms change from the moment that they are no longer mechanically reproduced, but *conceived according to their very reproducibility*, their diffraction from a generative core called a "model". We are dealing with third-order simulacra here (1993: 56, italics in text).

In effect, Baudrillard is contesting a material critique of representation, offering instead the post-material potentiality of simulation that denies meaning as derived from an origin or referent.

upon a relationship between reality and representation, as noted in Sontag, Susan. (1977). *On Photography*,

Replacing a myth of origins is an understanding of reality and meaning as generated from an already established structure of codes and values.

The postmodern subject of mass media and communications networks thus differs from the subject of modernity at the point of the collapse of signification. While the modernist subject of nineteenth-century lifestyle and technologies was a subject in flux, a protean precursor to the contemporary fragmented figurations of identity, Baudrillard's subject of postmodern relations disappears as the object becomes increasingly more prevalent. Following Baudrillard's trajectory, the explosive characteristics of modernity have been substituted for a culture of postmodern implosion. The ensuing collapse of signification liberates the object, rupturing the subject/object dichotomy upon which traditional notions of subjectivity are predicated. The ambivalent and transformative qualities of the postmodern subject are not based upon a modernist reassertion of the subject, but on the postmodern experience of life as a system of signs devoid of any relation to the real.

I echo Baudrillard in claiming that the visual image is no longer determined by the process whereby a referent in the real precedes the mechanically reproduced copy, as typified by the photograph. The image emerges as an act of approximation through the generation of models. In a culture of simulation the visual is experienced *as* simulation models. The metaphysics of the code prevails as the mode by which meaning is generated, thus ensuring that *reality is always already reproduced* in the form of the model. By presenting the simulation model as the dominant mode of exchange within contemporary society, Baudrillard abolishes the determinacy of the sign in favor of the indeterminacy of the code (Baudrillard 1993: 57).

Evident in Baudrillard's third-order simulacra is a shift from the experience of the image as a reproduction of the real world, towards the generation of the real through simulation. This is the hyperreal discussed in Chapter One as a mode of experiencing signification in contemporary life as *more real than real*. The hyperreal signals the end of the subjective experience of vision, typified by the Renaissance and modern periods. Perception located in a subjective viewer, such as the *flâneur*, is abolished by the dominance of binary codes that constitute 'the new operational configuration' of contemporary society (Baudrillard 1993: 57, italics in text).

The simulation model thus acts as a circuit-breaker in conventional understandings of meaning production and sign value by disempowering the signifier. When the image 'has no relation to any reality whatsoever', it comes to exceed signification (Baudrillard 1994: 6). The code erases all referents. Its signals are free-floating and illegible, bypassing the possibility of coherent interpretation (Baudrillard 1993: 57-58). The subversive potential of a theory of simulation for feminist understandings of posthuman figurations resides in the transgression of the code and the disappearance of meaning.

It is important to note that simulation does not signal the end of the real. Rather, it operates as a fatal extreme that dissolves the opposition between the real and representation, allowing for multiple, diverse and competing generations of meaning and reality. This 'fatal strategy' is not based on dialectics, but serves as a productive catastrophe that puts an end to stable oppositions (Baudrillard 1993: 3-4). Binary thinking collapses within a culture of simulation as difference is annihilated, opening up meaning and the potential 'for all possible interpretations' (Baudrillard 1994: 17). As meaning is no longer a question of opposites; true or false, origin or copy, real or representation, simulation creates the possibility for multiple meanings, interpretations and engagements with cultural texts.

In this regard, Baudrillard's theories suggest an affinity with the agenda of post-structural feminisms that aim to subvert the hierarchies of binary thought upon which subjectivity has conventionally been determined. The challenge to representation brought about by the displacement of the real as the reference point of all meaning disturbs traditional formations of subjectivity. Yet the indeterminacy that informs Baudrillard's vision of the subject, and postmodernism more generally, has been criticized for erasing the potential for agency in the subject. Rosi Braidotti's comments typify the view that the 'death of the subject' is incompatible with a feminist political project:

one cannot deconstruct a subjectivity one has never been fully granted; one cannot diffuse a sexuality which has historically been defined as dark and mysterious. In order to announce the death of the subject one must first have gained the right to speak as one; in order to demystify meta-discourse one must first gain access to a place of enunciation (Braidotti 1991: 122).

The most prominent criticism leveled at Baudrillard reiterates a broader claim against postmodernism — that the collapse of all divisions tends toward the erasure of political, social and cultural meaning crucial for the positioning of the subject. Sean Cubitt critiques simulation

(not only Baudrillard, but simulation theory in general) as a 'pessimistic theory, a theory of the endless reduplication of the same' (2001: 5). He refutes the notion that simulation constitutes a universal order of social relations, claiming that simulation theory is 'geographically specific, and does not seem to illuminate the relentless reality of Third World exploitation' (Cubitt 2001: 138). I can only assume that he is referring to simulation theory as geographically specific to the First World, thus subscribing to what Appadurai critiques as an inadequate model of centre-periphery relations in contemporary global interactions (Appadurai 1990).

Moreover, Cubitt takes issue with the explanation of simulation theory in terms of a consumerism that seamlessly and unproblematically pervades all aspects of contemporary life (2001: 138). As my analysis of modern and postmodern technologies of visualization illustrates, however, simulation does not exist as a totalizing condition, but operates as the dominant aesthetic, political and discursive framework through which we interact with both pre-modern and modern forms.

The main problem Cubitt identifies with simulation theory is its emphasis upon the relationship between representation and reality. Cubitt argues that by making reality its major cause for concern, simulation theory ultimately 'seems to lay claim to a universal account of everything, including the supposedly abandoned completion of grand narratives' (2001: 150). For Cubitt, reality is the 'wrong problem' for simulation theory to address. Instead, he argues that the way forward for a theory of simulation resides in an analysis of communication. While Cubitt's suggestion to focus upon the role of communication within postmodern culture is indeed a valid one, I take issue with his assertion that Baudrillard fails to deconstruct grand narratives, and that simulation becomes a new truth that replaces pre-existing metanarratives. Yet regardless of whether Baudrillard has succeeded in his project to escape such totalizing tendencies, his theory of simulation remains important because it complicates empirical and universal notions such as history, reality and the subject.

In light of such criticisms, does Baudrillard's writing constitute a legitimate political and social theory for feminism? If we are to believe Baudrillard, the question of difference can no longer be accounted for when dialectics 'disappear'. What feminism stands to gain from a disruption to binarized systems of meaning is the possibility for new imaginings of subjectivity that exceed traditional formulations of the body and identity. By contesting the value system inherent to dialectical thinking through the tropes of implosion, systematic reversals and fatality, Baudrillard collapses gender systems that establish a normalized structure of masculine and feminine. These

issues are taken up more fully in Chapter Four of this thesis. In the context of third-order simulacra, posthuman figurations operate as sites of unstable signification that disrupt the fixity of meaning and an unchanging notion of being. From here, feminism may formulate a new understanding of the relationship between women and technology. By challenging binary hierarchies, Baudrillard's theory of simulation enables a theory of posthuman figurations outside of the current feminist dialogue that situates technology as either good or bad for women.

My critique of the writings of Hayles and Turkle highlighted a proclivity toward upholding the differentiation between the virtual and the real. Turkle's argument that the virtual allows us to reflect upon the real attests to the limitations of feminist thinking that fails to problematize the relationship between virtuality and reality. Such distinctions are rendered problematic by posthuman figurations that occupy the site where the virtual and the real collapse. Mike Gane reminds us of Baudrillard's agenda to 'show that no adequate analysis of systems of representation can, simply, refer to the 'real' world (the referent), as if this was unproblematic' (Gane 1991a: 95). I thus take issue with a model of virtuality predicated upon an opposition to reality. For if the virtual remains distinct from what is real, how might we understand contemporary experiences of visual culture that radically recast the category of the self? In the current climate of information technologies, communications and media, there is an increased emphasis upon the virtual that is significantly altering how we perceive ourselves as subjects. In what other ways might the virtual be understood so as to better engage with posthuman figurations that are neither real nor virtual, fact not fantasy, material or informational but something else beyond signifying practices of technology?

Posthuman figurations manifest at the point where the distinctions between the virtual and the real collapse. This dissolution of values occurs within the specific temporal and spatial context of the hyperreal, opening up another way of thinking about virtuality and reality that does not see them as separate categories. Traditionally, representation functions to uphold the distinction between what is considered fantasy and what is valued as real. I return to this concept in Chapter Four where I deploy a theory of simulation to distinguish posthuman figurations from fantasy incarnations such as the monster. In the meantime, I suggest that an interrogation of the real encourages a transformation in how the body is experienced within contemporary cultural conditions. The following chapters are devoted to critically assessing the modes by which this transformation has enabled the rupture of the signification process.

Baudrillard's understanding of the virtual does not exist in opposition to reality. Indeed, it cannot legitimately occupy the site of opposition to the real, if we accept Baudrillard's premise that the real has been displaced by a culture of the hyperreal. Hand in hand with the death of the real comes the death of the illusion:

For reality is but a concept, or a principle, and by reality I mean the whole system of values connected with this principle. The Real as such implies an origin, an end, a past and a future, a chain of causes and effects, a continuity and a rationality. No real without these elements, without an objective configuration of discourse. And its disappearing is the dislocation of this whole constellation (Baudrillard 2000: 63).

When the real is abolished, so too does illusion disappear (Baudrillard 1995: 105). Virtuality does not create an illusion of the real, as the discourses surrounding the virtual reality phenomenon assume. Rather, the virtual signals the end of illusion. According to Baudrillard, in an age of electronic communication and digitality, machines are not requisite for the experience of virtuality, as life itself has become simulation (1995: 98). An overview of the first and second orders of the sign has established that illusion is fundamental to the status of the image as constructed via the opposition of the real and its representation. Accordingly, as third-order simulation fails to differentiate between real and representation, the illusion of reality inherent in the process of representation is no longer possible. Illusion is abolished because the real no longer exists.

Although simulation abolishes the real and illusion as oppositional categories, it operates to maintain the illusion of reality. Baudrillard calls this the strategy of deterrence; a strategy whose primary function is to conceal that the real is no longer real, effectively functioning against reality by maintaining the illusion of reality (1994: 7). The threat of simulation for the status of the real lies in its potential to approximate reality, while maintaining no referent in reality. While simulation undermines origins it also operates to perpetuate myths of origins and authenticity by upholding the appearance of a real. It does so by employing a strategy of deterrence. Reality is thus no longer a case of location in a referential signifier, but has become, as Baudrillard argues, '*an effect of the sign*' (Gane 1993: 141, italics in text). The reality principle is thus maintained by the approximation of the appearance of the real. As a result, the difference between the order of the real and the order of simulation become indistinguishable.⁹

⁹ To make his point about the strategy of deterrence as the mode by which simulation functions against reality to signal the death of the real, Baudrillard uses the well documented example of Disneyland (see *Simulacra and Simulation* 1994: 12).

Posthuman figurations offer a way to consider what is at stake for notions of identity when the reality principle is abolished, along with all other traditional dialectical value systems. The death of the real does not imply that there can be no meaning inasmuch as it offers potentialities for alternative modes of being, experience and making meaning. Approached through the framework of Baudrillard's theory of simulation, posthuman figurations provide a strategically useful and productive means of imagining alternative modes of subjectivity for a feminist political project. In the context of simulation, subjectivity is renegotiated as a process of *dis-identification* with representations that cannot and do not ever represent reality.

As a product of simulation culture, the posthuman resists identification, resists being conceived in terms of traditional ontological formulations. Posthuman figurations cannot be contained within a model of fantasy versus reality. Rather, they signal the point of hyperreality where oppositional terms implode. In their critique of the culture industry, Adorno and Horkheimer explain the interpretation of the work of art in much the same manner; as a process of transcending reality whereby unity, form and content are bypassed in favor of 'those features in which discrepancy appears: in the necessary failure of the passionate striving for identity' (Adorno and Horkheimer 1973: 131). Although Adorno and Horkheimer denounce modern society's inability to separate art from life, and representation from reality, much of what they observe within 'The Culture Industry: Enlightenment as Mass Deception', forms the basis of postmodern theories of the subject and society (1973, originally published in 1944).

The simulation model also proves problematic for feminist theorizations of representational practice that are predicated upon strategies of identification or resistance. This is because conventional feminist engagements with popular culture are complicated in a media climate where the distinctions between cultural spheres collapse. The writings of Australian 'postfeminist'¹⁰ Catharine Lumby and the recent work of British subcultural theorist Angela McRobbie are indicative of an engagement with popular cultural terrain that contests the antagonisms between consumption and representation typified by a second-wave feminist approach to representation and mass culture.

¹⁰ See entry under 'Postfeminism' in Gamble, Sarah (Ed.). (1999). *The Routledge Critical Dictionary of Feminism and Postfeminism*, New York: Routledge, 43-54, for a broad explanation of the term and the key arguments and positions of postfeminism. See also Parkins, Wendy. (1999). 'Bad Girls, Bad Reputations: Feminist Ethics and Postfeminism', *Australian Feminist Studies* 14 (30), 377-385 for an analysis of the ethical implications of a postfeminist position.

Catharine Lumby's interrogation of the relationship between feminism and mass media, *Bad Girls: The Media, Sex and Feminism in the 90s*, contends that feminists and women require a more complex means of engaging with popular images in the age of mass communications and media. Examining the discourses of pornography and censorship that ignited fiery feminist debate in the 1980s, Lumby argues that a shift has occurred in both media and audiences, and that feminists require alternative tools to think through media images. She suggests that feminist critiques of mass media that determine images as 'sexist', 'degrading' and 'insulting' to women have themselves become a dominant point of view that 'is out of touch with the way people consume images' (Lumby 1997: introduction xxv). It is Lumby's agenda to 'take issue with feminist readings of media images and offer alternative accounts' (1997: introduction xxiv). I also challenge how representational practice is theorized from a feminist perspective, examining the debates on female subjectivity and representational practice to afford a new politics of the subject.

The body of feminist film analysis of the 1970s and early 1980s significantly influenced how women now approach and decipher media images from a feminist perspective. Arising from the urgent political climate of second-wave feminism, feminist film aesthetics radically challenged the phallogocentric mode of interpreting and positioning women via the practice of representation. Interrogating the masculinist depiction of women at the site of the cinematic image brought to the fore previously unchallenged assumptions about spectatorship, the gaze, psychoanalysis and its role in gendered subject constitution (Mulvey 1989a); stereotyping and constructions of femininity in visual representation (Kuhn 1985); as well as Althusserian debates regarding the material effects of representational systems on women's lived realities (Gledhill 1984, Creed 1987).

Likewise, the pornography debates spearheaded by Dworkin and MacKinnon in the 1980s were fundamentally concerned with the connection between a practice of representation and its effects upon the status of women within a phallogocentric cultural, social and political economy (Dworkin 1981, MacKinnon 1979). Marxist theorizations of production and consumption and an Althusserian model of ideology and representation were instrumental to these debates. In his highly influential essay 'Ideology and Ideological State Apparatuses', Althusser formulates an account of the subject as constituted by ideology (1984, originally published in 1971). Unlike Marx, for whom ideology functions as a set of values or beliefs, Althusser locates ideology firmly

within a set of material practices (1984: 39). Althusser is careful to stress ideology's function as an illusion; that which alludes to reality (1984: 38). While ideology does not represent reality, for Althusser, the representations that constitute ideology have a material existence (1984: 39). That is, ideology exists as an imaginary relationship between individuals and the world in which they live, and it is the tangible and material process of interpellation or hailing, through which the subject is inserted willingly into the social order.

Althusser proposes that interpellation is a function of ideology, whereby the subject is recruited or 'hailed' by the practices of existing social orders (1984: 48). The subject comes into being by responding positively to the hail of ideology. In a feminist materialist landscape, women were positioned as objects of masculinist consumption; recruited into the social order by the hail of ideology. In accordance with an Althusserian schema, the victim status of women did not reflect a pre-given reality, but actively constituted their existence as secondary subjects. The representation of women within a phallogocentric signifying economy functioned to produce women's status as victims of a patriarchal society.

One approach adopted by feminism to remedy ideology effects involved encouraging positive depictions of women. To counteract the construction of women as objects of oppression by a masculine visual economy, feminist film theory endorsed women's representation of themselves as a way of creating more truthful and realistic reflections of female experience. Another strategy typified by Mary Kelly's multimedia artwork *Post-Partum Document* (1973-1979), refused the depiction of women altogether. Kate Linker explains the rationale behind Kelly's reluctance to represent women in the following manner:

on the one hand, it provides a protest against the body's use as an object, and against its appropriation to the sexist doctrine of essential femininity. And on the other, it acts to locate femininity within the field of desire, played out across a series of psychic investments (Linker 1984: 403).

Lacan's psychoanalytic account of subject formation is particularly relevant in this instance, as it is woman who signifies both male desire and lack. The body of feminist theory described here maintains an understanding of the social order in terms of Baudrillard's second-order simulation, whereby the distinctions between reality and illusion are upheld. While the notion of a real located in the material reality of women's experience is the basis for this feminist political project, the real also operates as its limit point.

Despite the productive and polemical interventions of feminist film theoreticians, an increased engagement with French post-structuralism in the areas of literary deconstruction typified by Jaques Derrida and the later writings of Roland Barthes, the psychoanalysis of Jaques Lacan and Julia Kristeva, and Michel Foucault's politics of power/knowledge, has inspired feminist reconfigurations of subjectivity and meaning as multiple, unfixed and fluid. While Baudrillard's theory of simulation has failed to register significantly with feminist post-structural thinkers, ideology debates have nonetheless been rendered problematic by post-structuralism more generally for the following reasons.

First, ideologies fail to inscribe the same affects upon different bodies. No longer is the text all-powerful in making meaning, but emphasis has shifted to the audience to construct meaning and elicit individual, affective responses to the text.¹¹ Second, subjects may choose to reject or resist the hail of a particular ideology, as exemplified by Jill Dolan's formulation of the female spectator as a 'resistant reader' who intervenes in the naturalization of an ideological stance within a particular cultural text (1998: 289). Moreover, Foucault's view of power as dispersed and interchangeable has assisted in challenging women's relationship to consumer capital (Foucault 1980: 186-7, 1984c). Rather than existing as oppressed victims of masculinist representational practice, women are empowered to resist, but also to actively consume and produce media.

Baudrillard's challenge to ideology, however, does not locate an active, resisting subject. The content of the message delivered by ideology is of little concern to Baudrillard. For as the image cannot represent reality, the question of meaning becomes one of media form rather than content. The theoretical perspectives offered by Baudrillard therefore encourage a review of not only traditional manifestations of the subject, but theories of the subject within postmodern dialogues that uphold the distinction between subject and object. Chapter Four of this thesis addresses the implications of this position for feminism more fully.

¹¹ Central to this paradigm shift in practices of reading and reception is Barthes' pivotal essay 'The Death of the Author' Barthes, Roland. (1977). *Image, Music, Text*, London: Fontana, 142-148. For a contemporary feminist cultural studies analysis of the affective responses to popular texts see Ang, Ien. (1985). *Watching Dallas: Soap Opera and the Melodramatic Imagination*, (Della Couling, Trans.), London and New York: Methuen.

In light of engagements with a post-structuralist critique of the unified subject, feminist aesthetics has undergone a radical shift away from psychoanalytic, ideological and material-realist concerns with the meaning of representation toward a focus upon the discursive constructs and practices shaping the text, the reader and modes of production. Integral to this shift is the repudiation of the notion of women's shared experiences and oppression that underpins a second-wave feminist politic, and the recognition of difference within and between women that contests the myth of a unified, monolith Woman.

Contemporary feminist approaches to issues of representation and reception that deconstruct the categorical construction of Woman include performance critic Elin Diamond's suggestion that the female performer 'look back' at the spectator in an attempt to disrupt the Oedipal construction of woman as fetish object by the spectator's gaze. Here the myth of realist representation is fractured as the performer intercepts and returns the gaze of the spectator (Diamond 1997: 54). Mulvey revisits the notion of woman as connoting 'looked-at-ness' with regards to the question of spectatorship by offering multiple positions of identification for both the female and male viewer of the filmic text (1989b). Lesbian film criticism contributes another means of redefining and interpreting filmic narrative and gendered viewing roles by questioning notions of spectator, desire and the practices of viewing (De Lauretis 1994). Feminists writing in the context of Third World difference formulate a telling critique of the myth of unified womanhood. The scholarship of Trinh T. Minh-ha and Chandra Mohanty fractures the stability and unity of a universal female subject and solidarity among women. By exposing the tendency of white, western feminism to construct the Other woman as an object of inquiry, Trinh and Mohanty interrogate the practices of a feminism that speaks for women in much the same way that many feminist commentators have accused patriarchy of doing (Mohanty 1991, Trinh 1989).

In the context of contemporary art practice, Cindy Sherman's photographs work to challenge realist assumptions about women and representation within popular culture. For example, by invoking the politics of the masquerade in *Untitled Film Stills* (1977), Sherman denies the fixity of woman's identity, instead opting for an indeterminate and often ominous critique of how femininity is constructed by Hollywood filmmaking. Sherman re-assesses the politics of a feminist materialist production of imagery that stands as a totalizing reality of women's experience. Rather, she creates what Mulvey describes as 'a re-representation, a making strange' of representations of femininity (1996: 67). Positioned concurrently as producer and object of consumption, Sherman collapses the distinctions between subject and object, referent and real. In

this regard, Sherman's tactic of representing the artifice of woman shares with Baudrillard's agenda a disruption of the association between an image and its referent.

Lumby also takes a postmodern approach to feminist representational theory. Although no direct reference is made in her text to the writings of Baudrillard, her argument is consistent with his assertion that the proliferation of signs in contemporary image culture registers as a significant shift in social operations. Lumby recognizes that reading images is a subjective endeavor, which results in the construction of many meanings, depending on the viewing position occupied by the subject. She positions the consumer as constituted by 'multiple selves' or 'schizophrenic fragments' (Lumby 1997: 24). Like the viral nature of postmodern feminism (Kirby 1994: 122) and the media, these fragmentary positionalities are unstable, in flux, constantly mutating according to differing contexts, and able to be subverted from within (Lumby 1997: introduction xxii). By elucidating the complexity of media images that are often deemed harmful or discriminatory to women, Lumby fractures the myth of a monolith Woman as object and thus victim of an equally immutable institutional construct termed 'media'.

As an alternative to the disempowering tactic of dismissing the mass media as degrading to women, Lumby advocates a critical engagement with images that negotiate notions of reality, power, and the production of meaning without recourse to traditional feminist debates (1997: 25). In according women a more productive and critical relationship to mass media, Lumby avoids situating women as either resistant to, or complicit in constructions of feminine stereotypes. As evidenced in her interpretation of the consumption of pornography, Lumby asserts that pornographic material is not only the domain of heterosexual men, but it is actively consumed by some 'women, gay men, lesbians and bisexual people' (1997: 103). This suggests that engaging with representations is not simply a matter of resisting or complying with cultural constructions of gender and sexuality, but requires a nuanced understanding of the negotiations between consumption, desire and embodied situatedness. Like Baudrillard, who confuses the distinctions between subject and object, image and referent, Lumby offers the subject an alternative mode of engaging with mass media forms, be they digital simulations, advertising billboards, pornography or CD covers. No longer is identity structured as a mode of resistance against dominant norms, but rather it is abolished as a coherent category in the complex and shifting mediations between media, representations and subjectivity.

Angela McRobbie also explores the shift in how women, in particular young women, engage with media and communication forms. Prevalent throughout McRobbie's work is a concern with the relationship between young women and the consumption of popular cultural texts. Her recent scholarship reconciles the tradition of subcultural studies with a postmodern feminist approach to popular culture and consumption. She reconsiders her prior analysis of girls and magazine culture in the late 1970s, an analysis understood as cultivating an oppressive masculinist ideology of femininity to which women aspired (McRobbie 1978).

In the Culture Society: Art Fashion and Popular Music (1999) sees McRobbie explore a younger generation's attempts at negotiating the relationship between popular culture artifacts and a feminist politic (McRobbie 1999: introduction xi). In revising her studies of girls' magazine culture as a site of female oppression, McRobbie interrogates the relationships between consumption and representation for a new generation of women. She highlights the conceptual shift from a 1970s materialist feminist engagement with the image, typified by the aesthetics of second-wave feminist film theory, toward a mode of producing and interpreting images informed by a postmodern culture of the image, as identified by Baudrillard.

Charting the manner in which women have engaged with magazines reveals a transition from 'angry repudiation' to 'the theory of ideology' to a focus on 'women's pleasure' to a 'return of the reader' (McRobbie 1999: 47). The trajectory outlined by McRobbie is closely aligned with the way feminists have negotiated visual images. This suggests congruent trends in feminist thought that have shaped engagements with popular culture throughout the seventies, eighties and nineties. From here, McRobbie proposes a new stage of analysis that recognizes the 'new sexualities of the nineties, the relationship to feminism and finally, through this relation to feminism, the reconceptualization of the social relations of production and consumption' (1999: 48).

Using the example of girls' magazines as a popular cultural product, McRobbie reveals how the popular may serve as a form of teenage rebellion against both patriarchal institutions and strands of moral feminism that condemn sexualized images of women. In other words, the idealized images of women traditionally denounced by feminism are now willingly consumed by a new generation of women who disassociate their politics from an earlier generation of feminism. Referencing the writings of Brunsdon on the constitution of female subjectivity, McRobbie notes that young women actively 'draw from feminist discourse and repudiate it when engaging with

the work of previous feminist scholars viewed as authoritative texts' (1999: 84). This is the result, in part, of a generational defiance against earlier strands of feminism and older feminists, viewed by younger women as authoritarian figures, who are unwilling to relate or engage with the views and concerns of younger women (McRobbie 1999: 126).

McRobbie is careful to avoid reiterating the claims of feminists who uncritically celebrate the affects of female cultural consumption. Instead, she is concerned with the characterization of a feminist materialist position of production contra a cultural concern with consumption (McRobbie 1999: 32). In a critique of consumerist studies as primarily occupied with a celebration of consumption as an empowering site for the manifestation of new social identities, McRobbie strives to re-think both production and consumption in consumer culture (1999: 37). She rightly explicates the intimate association between these two strands of cultural studies and the necessity to revisit the materialist aspect of cultural analysis.

In challenging the consumption/production dualism, McRobbie's position is consistent with Baudrillard's claim that simulation collapses the distinctions between consumers and producers. As discussed previously in this chapter, Baudrillard argues that there is no longer any difference between consumption and production in the order of simulation. For what is consumed in contemporary social relations is not objects, but signs. Both McRobbie and Baudrillard recognize the inadequacy of Marxist categories of analysis for understanding the relations between representations and subjectivity. Yet McRobbie's contribution to the study of representation differs significantly from Baudrillard's position in that she acknowledges the moral and ethical responsibilities of 'doing' cultural studies. This is imperative, I believe, to a feminist re-thinking of how popular culture operates.

McRobbie's revised form of cultural studies abolishes the binary between consumption as potentially liberating and modes of production as oppressive. Rather, she observes that 'consumption might also bring some degree of enjoyment beyond the grim reality of earning enough to feed a family' (McRobbie 1999: 40). Acknowledging the complicity of production and consumption in the constitution of subjectivity disrupts a binarized approach to these two facets of culture. This strategy is of value to the extent that it offers a productive relation between cultural production and an empowered mode of consumerism that contributes to the making of the self.

Central to the re-interpretation of practices of reading offered by a post-ideological feminist critique is the dissolution of definitive mainstream and marginal alignments between subjects and cultural practice, precipitated by new technologies that decentralize unified notions of the media and subjectivity. In their respective analyses, Lumby and McRobbie unpack the oppositional positioning of the subject as either resistant from the margins or blindly compliant with the mainstream; either 'active resisters' or 'cultural dupes' of popular culture. By tracing complex modes of engagement with the popular media, Lumby and McRobbie establish new frameworks, in which feminists may locate the multiple modes of consumption and current technologies of production. In the process, the project of resisting a masculine representational economy, as advocated by second-wave feminism, is made redundant by a postmodern feminist analysis. Such an analysis recognizes that countercultures cross over into mainstream discourses, and that distinctions between production and consumption are problematic. McRobbie argues that:

we should be less surprised than we sometimes are that the space of political articulation in culture from groups who have grown up under different historical conditions from those on the left, or even those within the anti-racist orbit of the late 1960s, is entirely different. It cannot be neatly anchored into a more familiar and therefore more comfortable language of socialist analysis (McRobbie 1999: 116).

McRobbie acknowledges the need for a means of thinking through culture and subjectivity outside of the centre/margin dualism of the Socialist Left. Writing on the question of banality in cultural studies, Meagan Morris also advocates a move away from pop-theory derived from a 'Left populism' that rehashes familiar arguments about consumption, subversion and pleasure (1990: 21). In line with this turn in feminist cultural studies, I deploy the writings of Baudrillard in order to continue to problematize the relationship between feminism and popular culture. For this argument, simulation functions as a potentially productive strategy for women to engage with contemporary popular representations and better defines the relationship of the subject with the current climate of information technologies and new media.

When the relationship between feminism and popular culture is questioned, it becomes apparent that traditional approaches to a politics of identity are no longer adequate to figure subjectivity as it exists across and in-between the demarcations of political, social and cultural forms. Baudrillard's order of simulation alerts us to the failure of identity based upon self/Other relations. He provides an alternative mode of thinking through popular culture that accommodates subject formations beyond an identity politics based upon the oppositional positioning of self and Other. By pursuing simulation as the framework through which to

understand posthuman figurations, I offer a theory of the subject more suited to negotiate complex mediations with popular culture in the context of mass communications and information technology. As a process of exceeding signification, simulation requires us to re-think the relationships between bodies, materiality and representation. Chapter Three thus explores what is at stake for the body when the distinctions between the virtual and the real are crossed.

Chapter Three

Plasticity and Play in Transforming Barbie

Every Sunday morning, in a suburban shopping centre carpark, people can be found buying and selling their pre-loved goods. Like its counterparts in London and Amsterdam, the Camberwell Market is a mingling of professional sellers and locals clearing out the unwanted contents of their wardrobes and garages. Young girls often split the cost of a stall, spending the morning together selling their 'junk'. Other stallholders can be found week after week at the same site, making a living from second-hand clothing and antiques. Angela McRobbie writes of the fleamarket as 'an oasis of cheapness, where every market day is a "sale"' (1997: 193). And it is the potential pleasure of finding a bargain that encourages me to trawl through aisle upon aisle of clothing, bric-a-brac, trinkets and records.

I approach a stall. Carelessly laid out on the asphalt floor is a line of Barbie dolls in various states of undress (Fig.1). They appear unkempt and unloved, stripped of their glamorous ensembles and petite shoes. The dolls are surrounded by old household items, keeping company with empty chocolate boxes, sunglasses, a pair of secateurs, a silver goblet. Each of the objects waits to be purchased, taken and used in another context. Barbie too, waits to be transformed again. I want to photograph the Barbies among this array of discarded forms. I adjust the lens of my camera and frame my shot. The stallholder jokes about charging a photographer's fee. After all, my engagement with the dolls is a form of consumption.

Barbie is a form so pervasive within contemporary popular culture that she hardly requires description. Taut, rubbery limbs extend from her compact, plastic torso. Like armor, her plastic shell forms a distinctive configuration of the body as contained and controlled — defended against the possibility of rupture. A synthetic sheen radiates from her surface, evoking a sense of smoothness and fluidity, despite the awkward joints noticeable between her plastic core and her waist, her head and neck, and her limbs. Something else resides beyond the rigidity of the mould. Barbie inhabits a form that is neither entirely inflexible, nor prone to dissolution. Instead, a sense of tension is indicated by the tautness of her body; a build up of energy with the potential to mutate, metamorphose and reformulate. All the while, the possibility of rupture is denied by the

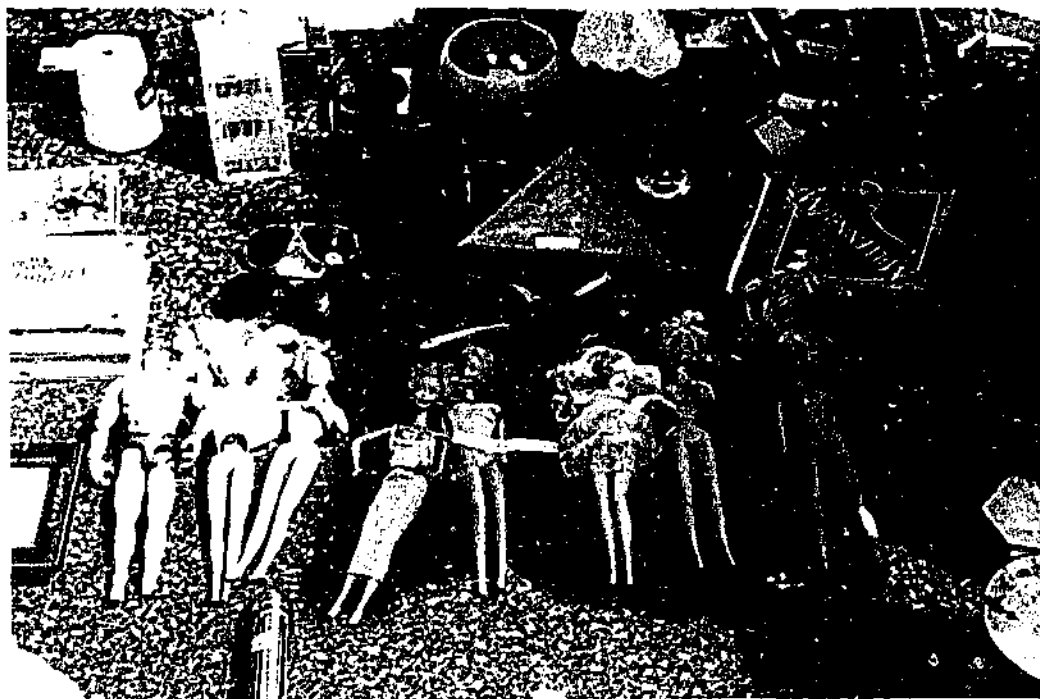


Fig. 1.

elastic and malleable properties of her plastic frame. Barbie is neither unitary, nor fragmented: she is a transformer.

In this chapter I argue for an interpretation of Barbie as a transformer who exceeds the limits of phallogocentric signification, and I explore the implications of this for a politics of identity. In order to postulate a narrative of Barbie as a transformative figuration, I begin by charting the history of plastics. As a product whose 'substance is very much her essence', as M.G Lord decrees, the notion of plasticity lies at the heart of refiguring Barbie (1994: 73). Plasticity suggests the potentiality of the subject that resides at the point of collapse between virtuality and reality. The history and theory of plastics indicates the ambivalence inherent in its formulation, use and meaning. In this regard, I champion Barbie's plastic form as an unstable referent that functions to disable, rather than determine meaning.

From here I consider the relationship between plastics and femininity in the form of the mannequin, arguing that the construction of the modern mannequin as the emblem of consumption, artifice and femininity informs conventional feminist critiques of Barbie. Such feminist commentators critique the unobtainability of Barbie's white, hairless, slender and smooth form as a model that is endlessly replayed, etched in the cultural psyche as an ideal code for femininity.

Yet I argue that it is Barbie's very impossibility that ensures the body's disappearance, allowing us to re-think the falsity that equates Barbie with the notion of a real woman. Baudrillard's concept of the 'trans' state is pursued as a strategy through which Barbie's form may be refigured as residing beyond the limits of the corporeal body. In this regard, Barbie anticipates the posthuman figuration that displaces signs of the body to a space beyond signifying practice, so that they may circulate as pleasures, possibilities and potentialities, beyond the fixity of meaning.

I address the limitations of feminist critiques that interpret Barbie as a fixed codification of ideal femininity through a study of the gendering of children's play. I then interrogate feminist analyses of the postmodern celebration of plastic bodies and transformative subjects. The latter part of this chapter considers the limitations of a materialist feminist approach to the body in relation to technologies of consumption that situate the female subject as a victim of power-effects. By emphasizing the plasticity of the body, Barbie offers a mode through which the self may be negotiated beyond an essentialist 'return to the body', highlighting the potential for

technology to offer multiple embodiments with multiple affects for the subject. The collapse of resistance-based politics in an age of technological uncertainty can be charted through Barbie's plastic form, which in turn, exposes the limits of both a politics of identity, and signifying practice. Beyond signification, I claim, is transformation.

The confused cultural space that plastic inhabits is evidenced by the multiple definitions accorded to plastic in the Oxford Concise Dictionary (1995), which include 'artificial' and 'insincere', as well as 'formative' and 'creative'. And while plastic is primarily defined as 'any number of synthetic polymeric substances that can be given any required shape', its derivative term 'plasticity', suggests a mode or element of being that emulates plastic's variable qualities. I define plasticity as a productive postmodern quality through which I re-think subjectivity and the body as transformative. Accordingly, my understanding of plasticity is informed by the current order of the simulacra, characterized by Jean Baudrillard as the point at which reality and artifice collapse.

Susan Bordo too observes that plasticity has become a 'postmodern paradigm' (1991: 106). For her, the plasticity of the postmodern paradigm resides in postmodernism's tendency toward a multiplicity of subjective positions. Bordo maintains that such positions erase the historical and social conditions that determine the subject. I contest her claims and argue instead for plasticity as a contextual, yet unstable state of ambivalence that opens up the possibility for transformation in subjectivities and bodies. A critique of her argument, along with that of other materialist feminists, is offered later this chapter.

Plastic is the definitive symbol of the mid-twentieth century, a period characterized by 'artificiality, disposability, and synthesis' (Fenichell 1996: 5). Its indeterminacy also situates it within the territory of the postmodern, marked by the destabilization of hierarchies such as authenticity versus reproduction, and high versus low culture.¹ While the materiality of plastic is rapidly being extended by the virtuality of the microchip, plastic's importance in the information age is noted by Steven Fenichell, who argues that the definition of post-industrial, postmodern society as the information age, could equally be termed the plastic age:

¹ The constitutive tendencies of a postmodern aesthetic and its comparison to modernist ideals are effectively and succinctly drawn out in Hassan, Ihab. (1993). 'Toward A Concept of Postmodernism', In Terry Docherty (Ed.), *Postmodernism: A Reader*, New York: Columbia University Press, 146-156.

Plastic provides us with the material prerequisite for information storage and retrieval, both analog and digital. From photographic film to audio- and videotape, from computer discs to CD-ROMs and CDs, plastic not only imitates natural materials, it allows us to recreate an entirely new world of the visual and aural imagination and record it for instant replay, as well as for posterity (Fenichell 1996: 5).

This new world of simulated phenomena that plastic inhabits and, in part creates, challenges notions of authenticity by destabilizing a modernist paradigm and undermining the ideals of autonomy and origins that structure an identity politics of the subject.

Despite the prevalence of plastic in contemporary consumer society, its associations with modern, industrial society also require consideration. Initially conceived in the nineteenth century as a miraculous substance offering limitless possibility, plastic's appeal resided in its ability to imitate the material world (Meikle 1995: 12). In Jeffrey Meikle's survey of the history of plastic, Celluloid is cited as the first organic-based plastic to be formulated in 1869. It was in 1907 that a chemical, synthetic plastic was invented, and given the trade name Bakelite (1995: 5). As plastics boomed in the post-war period, the sense of wonder and utopian potential of plastic was accompanied by its growing status in the vernacular. Alongside the celebration of plastic as a mode of endless potential and human mastery, its status as *unreal* rendered it a source of derision. Deemed vulgar and inauthentic for its commonality and transience in a throwaway culture, plastic acquired an alternative interpretation as fake, dehumanised, unreal and valueless (Meikle 1995: 7). The work of Evelyn Waugh is cited by Dick Hebdige as an example of this perception of plastic as inauthentic and aligned with mass culture (Hebdige 1988: 50).

Fenichell asserts that plastic is not only a substance we interact with daily, but has penetrated the human body in the form of prosthetics, artificial joints and valves (1996: 5). The prevalence of plastic within consumer culture and its increasing penetration of the anatomical corpus, has created an ambivalence toward its status in the cultural psyche. Perceived as a material of endless consumption, plastic suggests twin values. On the one hand, Meikle distinguishes plastic as representing the ideals of equality, democracy and accessibility (1995: Chapter Six). The counter-argument expressed by Roland Barthes sees plastic undermine a value system based upon origins.

For Barthes, plastic signals a negative turn away from origin toward imitation, thus displacing the wonder of nature for plastic's prosaic character of artifice and inauthenticity (1973: 97-8). Barthes describes how plastic can be made to reproduce rare materials such as diamonds and silk,

ensuring that the authentic can no longer be distinguished from the original (1973: 98). Plastic erases the value difference between things. As Barthes states:

The hierarchy of substances is abolished: a single one replaces them all: the whole world *can* be plasticized, and even life itself since, we are told, they are beginning to make plastic aortas (Barthes 1973: 99, italics in text).

The implication of the widespread use of plastic is, for Barthes, the devaluation of the natural world. Plastic's potential for endless transformation and infinite reproduction is, however, observed by Barthes as freeing man from dependence upon natural materials, so that 'the very itinerary of plastic gives him the euphoria of a prestigious free-wheeling through Nature' (1973: 98).

This idea of freedom from nature is well documented, and is best explained by Heidegger in 'The Question Concerning Technology' (1977). According to Heidegger, technology offers the potential for man to master nature. The once unknowable domain of the natural may be brought under control, or 'enframed', by technology. This ensures that man is no longer at the whim of volatile, natural forces, but instead may appropriate nature as a human resource. Heidegger observes an indeterminate positioning of technology in relation to the subject. While technology offers man control over the natural elements, it simultaneously threatens his integrity, and he risks becoming a 'standing reserve' in the service of technology (Heidegger 1977: 298). Underlying this argument is the gendered opposition of self/Other, nature/technology, that retains the myth of a unified, masculine subject whose existence is jeopardized by the double threat of woman as both technology and nature; uncontrollable and to be controlled (Huyssen 1986).

The ambivalence toward technology that Heidegger observes is also present in many perceptions and understandings of plastic. As a product of chemical and industrial technologies, the myth of plastic as artifice and inauthenticity replays the gendered assumptions concerning mass culture and production. Previously I have suggested that the coding of the feminine as threatening informs the value systems inscribed upon women's associations with technology. These assumptions are also embodied in the mannequin, which Hal Foster classifies as a 'mechanical-commodified' form (1993: 126). Displaying the ambivalence of both the machine and the commodity, the mannequin emerges as an uncanny, deathly double: both mechanistic and

vitalistic.² Foster goes on to note that the ambivalent status of both the commodity and machine within the popular psyche is primarily understood 'in terms of feminine allure *and* threat, of the woman as erotic *and* castrative, even deathly' (1993: 134, italics in text).

The mannequin may thus be considered as the quintessential modern emblem of consumerism, femininity and artifice, prior to the advent of Barbie. As Foster states, 'the mannequin evokes the remaking of the body (especially the female body) as commodity' (1993: 126). In her study of the mannequin as an advertising technique particular to a French sensibility, Tag Gronberg likens the mannequin to the car, whereby both are 'acknowledged as the product of industry' (1997: 377). The industrial origins of the mannequin are reiterated by Baudrillard, who distinguishes the mass production of the automaton by its location in a productivist mode of the second-order.

The mannequin represents a modernized form of femininity, typified by consumerism. Like the female *flâneuse* discussed in Chapter Two, the mannequin inhabits modern spaces of consumption, such as the department store and shop window. Moreover, the mannequin functions explicitly as a simulacrum of the female form. Gronberg notes, however, that the specific characteristics of the modern mannequin strive to de-emphasize feminine qualities. The modern mannequin is differentiated from more traditional 'realist' wax forms by stylised limbs, the erasure of facial characteristics, and the use of textured gold and other metallic substances upon its surface. Gronberg concludes that the mannequin does not attempt to represent the feminine, but functions as a 'cancellation of the conventional signs of feminine beauty' (1997: 379). The ambivalence in the mannequin's status as both real and unreal is in keeping with Foster's interpretation of the mannequin as an uncanny form.

This erasure of femininity on the mannequin's form functions to create a 'disturbing violence, an evocation of woman suffocated through representation of the female body as "gilt" in silver or gold' (Gronberg 1997: 386). Moreover, this violence is accentuated by the mannequin's status as fetish object of the male gaze. Her featureless face is unable to return the gaze of the male spectator. Gronberg understands this violence as tied to the mechanization of the female

² Foster's use of the uncanny derives from Sigmund Freud's psychoanalytic accounts of the uncanny as 'that class of the frightening which leads back to what is known of old and long familiar' (1955b: 220). The potency of the uncanny depends upon its dual aspect as both not known and familiar (1955b: 220-1). See Freud, Sigmund. (1955b). 'The "Uncanny"'. In Sigmund Freud, *The Standard Edition of the Complete Psychological Works of Sigmund Freud (vol XVII An Infantile Neurosis and Other Works)*, (James Strachey, Trans.), London: Hogarth, 219-256.

consuming body, as a mode of policing or controlling the threat of the consuming female.³ She states:

These mannequins substitute...for the female consumer in particular: a 'légion d'idoles' stands in for the crowds of women shoppers on the urban street enabling the circumscribed and demure gaze of the non-Western woman to be fantasized as a (reassuring) alternative to the active and desiring look of the woman shopper. The woman shopper — the woman who 'wants' — was an ambivalent and threatening figure (Gronberg 1997: 391).

Gronberg's remarks are consistent with the body of literature, from Heidegger through to Huyssen and the work of feminist scholars, that equates technology with destruction, and subsequently a threatening femininity that requires control. The form of the mannequin embodies the equivalence constructed between woman as consumer, and mass reproduction and mechanization.

This association is well documented throughout surrealist art practice, which often represents the mannequin as a fragmented and fractured female body. Rosalind Krauss argues that the surrealist break-up of the female form functions as a sign of the constructedness of the category 'woman', and is thus in keeping with the surrealist project of the *informe*, which aimed to dissolve the formal categories organizing reality, such as sexual difference (1985: 19-20). In his interpretation of Hans Bellmer's *Poupée* works of 1934-5, Foster also suggests that Bellmer's dismembered dolls stand for something more than an example of the mannequin as a fetishistic and voyeuristic image of woman. By considering Bellmer's distorted mannequins in light of fascism, Foster locates something beyond the fetishization of woman, whereby the masculine subject confronts the possibility of his own dissolution in an act of identification with, or becoming of, the fragmented female form (1991: 94).⁴ And while Krauss and Foster attempt to re-think the mannequin beyond its associations with the fetishization and objectification of women, I argue that many feminist critiques of Barbie unproblematically replicate the assumptions played out between the mannequin, femininity, consumerism and bodily violence.

³ This is consistent with Gillian Swanson's argument, discussed in Chapter Two, that the female subject of nineteenth-century modernity, who occupies public space, is constructed as pathological and deviant.

⁴ It is beyond the scope of the current argument to consider fully the representation of women in surrealist practices. In addition to the analyses put forth by Foster and Krauss, see the following texts: Belton, R.J. (1995). *The Beribboned Bomb: The Image of Woman in Male Surrealist Art*, Calgary: University of Calgary Press. Finkelstein, H.N. (1979) *Surrealism and the Crisis of the Object*, Michigan: University

By locating Barbie within a history of automatons such as the mannequin, I make explicit the way in which she displays aspects of both the modern and postmodern cultural condition. Barbie acts as a 'bridging' figure between debates surrounding gender and representation, and posthuman, post-gender figurations. Building upon my arguments regarding the representational economy of simulation, I suggest that new forms of visual culture change not only the way we approach images, but our understandings of bodily modalities and experiences. As I have established, using the work of Baudrillard, simulation culture transforms the process of signification by destabilizing a coherent association between the real and the image. Figurations such as Barbie thus function to encourage alternative understandings of the body and self as transformative, rather than bound to an established system of meaning. I claim that the ambivalence of Barbie's plastic body creates the possibility of re-thinking the associations between the body and representational practice, thus establishing a framework through which to approach posthuman representations.

For the most part, Barbie exists as a point of fascination, conflict and rancor for a generation of second-wave feminists. Early semiotic and sociological critiques of Mattel's famous doll position her as a 'perfect icon of late capitalist constructions of femininity' (Urla and Swedlund 1995: 281). Interpreted in this context, Barbie signifies fixed gender roles, heterosexual norms and consumerist values to which women must strive. Those who interpret Barbie as a mainstream cultural commodity marketed toward the white, heterosexual girl, take the position that Barbie encourages women to be consumers (Mutz 1983, O'Sickey 1994, Rogers 1999). Moreover, Barbie is deemed to embody the notion of woman within capitalist culture as a commodity to be purchased, consumed and manipulated.

Ann du Cille extends the argument that Barbie symbolizes the commodification of gender difference to examine the merchandising of racial difference in the form of multicultural Barbies. Identical except for their dye-dipped bodies, du Cille maintains that the plethora of multicultural Barbies on the market collapses difference into a pluralism of 'sameness' that fails to displace the dualisms of self/Other (1995: 556). In this argument, Barbie is problematic as her marketability relies upon the consumption and negation of cultural difference. This is evidenced in the development and marketing of a range of black Barbie dolls, given the names Shani, Asha and Nichelle. For du Cille, the cultural currency of these dolls is explained in terms of their

difference to Barbie, while maintaining the key attributes and features that make Barbie desirable — her long thick hair, small waist and petite facial features (1995: 559-60). As the exotic Other, these dolls can never displace the primacy of Barbie, maintaining the status of deviants that uphold Barbie as the original. When interpreted as the epitome of racial and gender commodification, Barbie offers little more than a harmful and exploitative image of femininity.

Yet the construction of Barbie as an ideological tool of white patriarchy is problematic in much the same way as second-wave feminist film theory posited representations of women as unrealistic and stereotypical. To suggest that Barbie fails to represent reality is to deny the status of representation as fantasy that may be negotiated in various ways by different consumers. Catharine Lumby's argument is particularly relevant here. She claims that our engagements with popular media can no longer be understood in terms of one fixed interpretation, but function to produce a multiplicity of readings, pleasures and responses (Lumby 1997).

A counter-narrative thus emerges that refigures Barbie's mainstream reputation as an icon of femininity and consumption. Re-reading Barbie in this framework relies upon the oppositional strategy of citing Barbie as the site of subversion or resistance. Jacqueline Urla and Alan Swedlund argue that the radical re-appropriation of Barbie by camp culture offers a space for queer identity through resistance to the heteronormative, gendered ideals Barbie is said to represent. For example, Barbie's stereotyped representation of femininity is parodied by drag queens, while her male counterpart Ken is reinscribed with gay identity in order to challenge the rigid gender roles and conventional modes of consumption embodied by Barbie (Urla and Swedlund 1995: 304).

Barbie is thus interpreted as a site through which identity may be forged as different, or Other, to the norm. The strategy of claiming identity through resistance challenges the notion of Barbie as operating to create a 'shared identity' between those who desire and own Barbie commodities within the popular mainstream (Urla and Swedlund 1995: 282). Yet the resistance strategy of opposing the dominant trend to identify with established Barbie ideals and values, ultimately fails to displace the self/Other dichotomy from which a politics of identity gains currency.

When I see the Barbies at the flea market, I am stuck by their 'objectness'. It is not the notion of Barbie as a passive object-model of the feminine that I am implying by this. Neither do I consider the disheveled and trashed Barbies, half-naked with hair unkempt, as indicating some

sort of resistance to an ideal of feminine beauty. What fascinates me is the very erasure of specificity that distinguishes them from the surrounding assortment of items. In *The Transparency of Evil* (1999), Baudrillard proposes that categorical distinctions between things become contaminated in a culture of simulation, so that:

Each category is generalized to the greatest possible extent, so that it eventually loses all specificity and is reabsorbed by all the other categories. When everything is political, nothing is political any more, the word itself is meaningless. When everything is sexual, nothing is sexual any more, and sex loses its determinants. When everything is aesthetic, nothing is beautiful or ugly any more, and art itself disappears. This paradoxical state of affairs, which is simultaneously the complete actualization of an idea, the perfect realization of the whole tendency of modernity, and the negation of that idea and that tendency, their annihilation by virtue of their very success, by virtue of their extension beyond their own bounds — this state of affairs is epitomized by a single figure: the transpolitical, the transexual, the transaesthetic (Baudrillard 1999: 9-10).

Barbie too erases the specificity between self and Other, object and subject, real and illusion by operating as an endlessly proliferating sign of the body that explodes any possibility of articulating the 'truth' of the female identity. When stripped bare of her frilly, feminine accoutrements, Barbie reveals nothing. Breasts shooting upward, legs splayed — she is a hyperfeminine signifier who makes sex meaningless under the burden of its relentless proliferation. The excesses of her plastic form — longer-than-long legs, masses of blonde hair, and breasts like rocket launchers — exceed the limits of phallogocentric signification by virtue of their hyperfemininity. Baudrillard claims that within the fractal, or fourth order of the sign, the proliferation of the unbound signifier creates a viral, or fractal replication that liberates value from any point of reference. This allows us to consider Barbie's culturally pervasive form as something beyond the reiteration of feminine codes of behavior, or a bodily ideal. Rather, the 'trans' state signals a contagion; an invasion of all categories by each other.

The cultural situation typified by viral contamination sees Barbie disperse value across her synthetic form. She does not reflect an ideal image of femininity. Instead, the indeterminacy of meaning refracts off her plastic body. Plasticity implies process, and like its definition, the many forms plastic may take are ambiguous and contradictory. The generative potential of plastic resides in its ability to become any shape. It is transformative, contaminating the distinctions between natural and artificial, subject and object. In the market, the Barbies are lined up, a chain of reproductions without value hierarchies. Moreover, these Barbies sit alongside an assortment of mechanically reproduced goods, each object a simulacra that contaminates the distinction

between what is authentic and what is fake. Valuation is made impossible. Meaning disappears in the endless propagation of signs.

Simulation disrupts value systems through which meaning is inscribed, and thus allows us to think of Barbie as operating differently to a representation of reality. By advocating the dissolution of all values, Baudrillard eschews a productivist logic of modernism based upon identity, reality, knowledge and truth. I too advocate this strategy as a way of reconsidering Barbie beyond signifying practice.

Another approach to Barbie that avoids interpretation based on dichotomies of self and Other, good or bad, can be found in the work of Erica Rand. Taking to task Gramscian theories of ideological hegemony and counter-hegemony in the context of Barbie play, Rand calls into question the seamlessness of an identity politics predicated upon self/Other identification. Her sociological study of Barbie consumption entitled *Barbie's Queer Accessories* (1995) indicates the indeterminate and often contradictory manner in which people position themselves with regards to Barbie. Particularly illuminating are the questions raised concerning queerness in relation to mainstream and marginal discourse and the acts of cultural subversion employed as political strategy by queer Barbie play (Rand 1995: Chapter Two). In this analysis, Rand astutely acknowledges the 'unfixed place of resistance' within tales of subversive Barbie play. Making the point that resistance does not necessarily fall into the dichotomous opposition of conformity/subversion and mainstream practice/marginal counter-practice (1995: 101), Rand highlights the nature of the postmodern subject as contradictory and multiple, and in doing so, contributes to displacing a model of subjectivity that relies upon binary thought.

Rand unproblematically assumes that resistance functions as a strategic possibility for the making of the subject. And while she argues that resistance is unfixed, and hence cannot be located within a fixed power dichotomy, Rand reinforces the necessity of resistance for contemporary subject formation. I acknowledge that Rand's study of Barbie play complicates identity formation predicated upon self/Other relations. Yet ultimately, she retains resistance as a cogent category for differentiation, and accordingly, a theory of social identity. Although I share Rand's commitment to configuring Barbie in ways that move beyond the limitations of structural interpretation, I find her use of resistance inadequate to consider the role of representation in the context of an economy of simulation.

Barbie inhabits a hyperreal space that confuses the distinctions between centre and periphery, consumption and production. As these boundaries erode, figuring identity in terms of a self/Other dichotomy becomes increasingly problematic. The consumption of Barbie by marginal groups (such as black women, gay men and lesbians), as well as Barbie's appropriation of marginal discourses for consumption (as in the marketing of multicultural Barbie), is indicative of the growing ambivalence undermining the stability of the subject as categorical distinctions collapse. This confused cultural space demands an understanding of subjectivity beyond identity politics. As Baudrillard reminds us, the failure of self/Other relations in our contemporary cultural climate is based upon the impossibility of resistance in an era of hyperreality where all categories — political, sexual and aesthetic — become liberated 'after the orgy' of modernity (Baudrillard 1999: 3).

When the value system based upon the relations of subject and object, real and virtual is confused, Baudrillard's observations lead to the conclusion that there is no Other to resist. No longer may the subject simply 'identify' or 'resist identifying' with popular icons such as Barbie and the multiple meanings she evokes. Instead subjects experience a range of contradictory and competing positionalities within postmodern mass culture, provoked to a large extent by the pervasiveness of technology. In the third order of simulation that abolishes the real as a coherent category of analysis, Barbie becomes a sign, inhabiting multiple spaces and forms, as indicated by the pervasiveness of the Barbie brand across different media. The proliferation of media and communication sees Barbie inhabit the world of advertising, internet culture (she has numerous websites devoted to her), as well as marketing and movies. Not only is the Barbie doll marketed for consumption, so too is the merchandise displaying her brand name, such as magazines, pencil cases, clothing and keyrings. The recognition of the Barbie brand attests to her cultural reach beyond her status as a doll.

In claiming that '(o)nce I used to analyse things in critical terms, of revolution; now I do it in terms of mutation' (Gane 1993: 43), Baudrillard locates an alternative strategy for the subject to deploy in an age of media networks and communications where revolution is no longer possible. An analysis of the subject must therefore take another form; a form that I propose is transformative. The term transformer suggests a person or object with the ability to transform, as well as denoting a technological instrument used for the control of an alternating current by increasing or decreasing voltage. Like this transformer of electronics, Barbie is a sign-switcher in constant process; inhabiting the site that alternates between the real and the virtual.

Barbie's promise lies in her plasticity. It is plastic's material and symbolic ambiguity that allows for the generation of alternative understandings of the relationship between the body, technology and representation as transformative. The plastic constituting Barbie's frame displays properties of firmness and flexibility. A lightness, or synthetic sheen radiates from her smooth form, evoking a sense of instability or a state of flux. Like the stretched rubber band of a catapult, her elongated limbs are taut and filled with potential energy. Barbie is ready to metamorphose. Yet tension is an unstable state. The risk of snapping accompanies the potential to be flung into another place or become another form. An uncertainty is created by a plasticity that threatens to transform into something else. It is the instability of value systems that allows for this play in form. Barbie, like her plastic body, is an unstable referent. 'Against the differential play of value', Baudrillard observes (1998b: 4), is a 'dual play of form: reversibility and metamorphosis' (1998b: 4). Metamorphosis is explained by Baudrillard as:

a happy catastrophe: it is the ceaseless changing of the one sex into the other, of ideas one into the other, of tones, words and colours. It is the changing of the human into the inhuman and on through the total cycle of appearances, forms and substances respectively: vegetable, mineral, animal and human. And why not of other superhuman forms once the human is no longer the be-all and end-all? (Baudrillard 1998b: 4).

One of the central propositions to emerge from Baudrillard's critique of value systems is the destabilization of meaning. The dissolution of fixed systems of meaning does not, however, imply the abolition of the subject and the body. As Kristeva reminds us in *Powers of Horror* (1982), the tensions between the multiple and dynamic self and a coherent sense of self must be sustained if we are to avoid the dissolution of the subject. This state of tension is reflected in Kristeva's 'subject in process', whose unresolved and discontinuous state disrupts systems of meaning, ordering and understanding.

The unresolved state of the subject may be likened to the unresolved status of Barbie's plastic body. It is a subject of potentially endless transformation that inhabits the space between rupture and rigidity. In the context of the hyperreal that sees dichotomous value systems annihilated, the transformer cannot be fixed within a system of meaning. Barbie's plasticity exceeds signification by residing beyond any relation to reality. The space of the hyperreal offers the possibility for bodies to re-appear as imaginings beyond the fixity of embodiment. This is not to deny the material conditions of existence, but to suggest that in engagements with cultural artifacts, the primacy of the subject is destabilized by the object, creating the potential to re-think subjectivity

as transformative according to particular contexts. These are contexts that may change over time. Figuring the subject as transformative averts the rupture associated with the breakdown of a unified subject located within a fixed and rigid form, yet the subject does not disappear entirely. Transformation evokes subjective positionalities in flux, whereby bodies and selves negotiate technologies that impact upon how the world is lived and experienced.

By offering Barbie as an example of a transformative figuration of subjectivity, I do not intend to position her as a literal embodiment of the plastic subject. Rather, my aim is to reconfigure the idea of plastic in the cultural psyche, as a means of breaking down the unity of the subject in favor of a more fluid conception of self. As Fenichell states: 'We mould plastic. And plastic moulds us' (1996: 9). Figuring the posthuman as plastic, as a potentially transformative entity, is a process of recognizing the necessity for new engagements with cultural conditions that confuse hierarchical binaries of self/Other, mainstream/marginal and real/virtual.

In a contemporary popular cultural context, the trademarked term Transformers commonly refers to the 1980s toy phenomenon that 'transforms' from the conventional model of a car/truck/boat into a towering robot machine-man, or cyborg entity. Transformers are not exclusively for boys, but are marketed to them, and appeal to traditional associations of masculinity with technologies of warfare and industrial and automotive machinery (Wajcman 1991). By playing with toys such as Transformers, the idea of transformation is actively encouraged and legitimized within male body culture. The link between transformation and masculinity is noted by Marsha Kindler in her article 'From Mutation to Morphing: Cultural Transformations in Greek Myth to Children's Media Culture' (2000). Kindler highlights the primacy of masculinity in Greek mythic narratives of transformation, and the continued association of men with transformative capabilities in popular cultural contexts, such as *Teenage Mutant Ninja Turtles* and *Mighty Morphin' Power Rangers* (Kindler 2000).

An active process is required each time a boy chooses to 'transform' the Transformer from its vehicle state to a machine-man and vice versa. In this schema, the dualisms of man/culture/activity contra woman/nature/passivity, are reinforced. If we are to maintain the dichotomous positioning of women with nature and passivity, Barbie, as a standard object of girls' doll play, cannot be interpreted as a transformative entity. Judy Attfield identifies the prevalence of such dichotomous thinking in her examination of the different types of joints in the design of Barbie compared with those of the boys' toy Action Man. Her study illustrates how

Barbie's limited and simplistic joints render her more suited to posing than motility (Attfield 1996: 82). Comparing Barbie with Action Man's moveable parts and complex ball and swivel joints, Attfield concludes that the 'cliché of "feminine" as passive and "masculine" as active is literally embodied in the design of the toys' (1996: 85).

To counter this assertion, Mattel markets Barbie's transformative capabilities in terms of the endless range of clothes and accessories available to both Barbie and the consumer. According to Kindler, Mattel's advertising techniques represent Barbie as permanent and unchanging 'hardware', which is supplemented by a range of prolific, high-turnover and ever-changing accessories or 'software'. Similarly, multiple version of Barbie are available to the consumer, making it possible (and likely) to own a number of different Barbies that nonetheless maintain a common identity as Barbie. Kindler concludes that Mattel's portrayal of Barbie as fixed ultimately functions to restrict her shape-shifting capabilities (2000: 77).

For example, a recent visit to a local toystore revealed Barbie's latest incarnations as a photographer's model, as well as the fairytale characters Snow White and Cinderella. In the past, Barbie's careers have included being an astronaut and a female president. From this perspective, Barbie displays a malleability in the multiple personas and roles she enacts, while retaining a coherent identity. This interpretation of Barbie finds its theoretical complement in Judith Butler's notion of performativity. For Butler, gender roles are performative enactments that ensure the materialization of female bodies through the reiteration and citation of the discursive codes of feminine ideals (Butler 1993). Interpreting gendered bodies as constructed entities serves as a strategy to counter the myth of Woman, and the notion of femaleness an essential and inherent quality. Indeed, Barbie's hyperfeminine features imply that gender itself is a simulation; an artifice that is reproducible, rather than a natural characteristic. The transformations Barbie may undergo, however, are limited to the changing of accessories, careers and roles. And, while one might choose to celebrate the postmodern proliferation of identities and possibilities that Barbie presents to young girls, her identity and perceived bodily boundaries remain intact.

Each of the studies referenced above calls into question the gendered assumptions associated with child's play, yet uncritically presupposes that toys prefigure an adult world. This is in keeping with Barthes' perception that toys are fixed within a universal system of meaning, thus allowing us to make sense of the 'real' world. He laments the inability of toys to 'offer dynamic forms' through which the subject may transform the self, particularly in the case of plastic toys (Barthes

1973: 53). Barthes equates plasticity with a fixity akin to death; a destroyer of nature, humanity and the pleasure of child's play (1973: 54-5). Hence Barbie, with limited motility in her plastic limbs and a plastered on smile, can never qualify as transformative when figured in terms of Barthes' structural analysis, the marketing and design of toys, and feminist critiques of cultural consumption. While it is the dualistic thinking implicit in configuring Barbie as static and passive that Attfield and Kindler astutely recognize, both studies assume the material fixity of Barbie's body as the limit point to thinking beyond established interpretations. I contest such limitations by claiming that the plasticity of Barbie's form challenges the notion of the body as the contained and unchanging site of subjectivity.

Looking again at my photograph, I am struck by the trio of dolls on the left of the picture — a headless male doll and two Barbies. They bask in the full sun, cut off from the rest of the group by a shadow that envelops the remaining dolls. Arranged neatly above the Barbies are three pairs of sunglasses. Above and to the right of these are three lipstick cases. Each of the objects is plastic, their difference residing only in the degree of their malleability, and the mould in which they have been cast. The primacy of one object above another is made redundant when configured in terms of process. As evidenced by this haphazard collection of junk, plastic exhibits the potential to become any form. Plasticity, as Barthes reminds us, erases all difference — 'the whole world *can* be plasticized' (1973: 99, italics in text).

Neither do the objects made from 'natural' substances — the glass bottles, the wooden bowl or the metal secateurs — have greater value than the plastic Barbie, by virtue of their authenticity. They are no more or less authentic or real than the plastic toy. No primacy is accorded to an original in this random arrangement of objects. Although Barthes derided plastic's ability to simulate reality, it can no longer be construed as an imitation of nature. Plastic does not strive for equivalence with the real, rather the simulacra is reality. As a substance of simulation, plastic dissolves the opposition between the real and what it represents. Likewise, there is no 'truth' to the meaning of Barbie. Barbie's place on the asphalt, among the array of knick-knacks, can be regarded as outside a fixed category of signification. She is neither a real nor unreal representation of the female body, but rather represents the possibility of transformation.

Consistent with my approach to re-thinking established perceptions of Barbie as representative of reality, is Carol Ockman's suggestion that Barbie functions as a *fantasmic* body. Ockman complicates Barbie's status as an ideal figure of femininity through Kenneth Clark's definition of

the nude. Her argument hinges upon the notion that Barbie's ability to represent an ideal without representing the nude creates a productive tension between the real and the ideal. For Ockman, Barbie's static body is timeless. She exists in a 'physical state outside of time' (1999: 83). Simultaneously, 'Barbie's accessories...produce a kind of "reality effect" that naturalizes Barbie's body, rendering it paradoxically both authentic and timeless' (Ockman 1999: 85).

Ockman concludes that the tension created by Barbie's fantasmic status culminates in signs of resistance against the ideals of womanhood that Barbie represents. She locates an example of this resistance in art practice — through the tendency of art practitioners to mutilate Barbie's form. According to Ockman, such mutilations function to critique an ideal by suggesting the potential of real violence upon the corpus. In her schema, the productivity of the confusion between ideal and real resides in an act of resistance against a real.

While this study is of value to the extent that it locates a site of productive tension between the ideal and the real, Ockman maintains, and fails to problematize, the categories of real and ideal, which sustain an interpretation of Barbie within practices of signification. As a result, Ockman largely dissolves the potentiality of the tension she recognizes; a tension that would allow Barbie to be re-configured as 'something else'. I suggest that the tension Ockman identifies cannot function to sustain the real and the ideal as dichotomous terms, but instead creates the possibility for infinite transformation at the point of the collapse between reality and representation. When the dissolution of the real and ideal abolishes the basis of meaning, Barbie demands another mode of interpretation.

The plastic potentiality of the transformative subject proves problematic for a feminist political project to assert a female subjectivity denied by the ethos of modernism. For to conceive of a female subjectivity risks re-instating elements of modernism's concern with autonomy, unity and essence, albeit in the process of attempting to undermine the privileged status of the white, western male subject of antiquity. An example of the feminist concerns surrounding the postmodern crisis of the subject is outlined by Susan Bordo, who considers these debates specifically with reference to the emergence of the body as 'cultural plastic'.

In a rigorous attack upon plasticity as a postmodern paradigm, Bordo accuses popular culture of falsely espousing 'the rhetoric of choice and self-determination', and suggests that postmodern theories of subjectivity operate instead to efface the material and social realities of lived bodies

(Bordo 1991: 109). According to Bordo, the cultural practices of shaping, or constructing the body through plastic surgery or attending the gym are symptomatic of the postmodern tendency toward homogenization and normalization. In speaking of the plastic postmodern subject as capable of endless transformations, Bordo expresses concern for the integrity and status of the human body and the erasure of gender and race difference. It is the normalizing power of cultural imagery that Bordo argues perpetuates 'a construction of life as plastic possibility and weightless choice, undetermined by history, social location, or even individual biography' (1991: 110).

The ideology of technology as Bordo puts it, creates an industry that defies the history, materiality and mortality of the body by promising its endless transformation, correction and replacement (1991: 106). Bordo is emblematic of a feminist response to contemporary image culture as a misinterpretation of the subjective experience of lived reality. The totalizing quality of such a mindset based upon structuralist semiotics maintains top-down power relations that suffocate agency on the part of the subject and impose victim status upon women who 'strive' for a beauty ideal. Much like feminist film theory of the 1970s, the debates surrounding technology and the body lapse into a determinism that decrees representation as paramount to reflecting a given reality. Meaning becomes fixed within the mould of the plastic body. By reading consumption as a universalized and abstracted signifying system, what we experience is a consumption of code (in this case femininity), which reproduces systems of sexism and inequality. Yet, as Baudrillard has indicated, reading the body this way is no longer adequate when hyperreal, postmodern culture disrupts a code of equivalence based upon dichotomous value systems. The code no longer functions to uphold the relationship between an image and its referent, but abolishes meaning as located in the real by acting instead as a model from which the real is produced.

Bordo makes the claim that postmodern rhetoric has invaded contemporary cultural sites such as the American talk show Donahue, which she considers to be an example of the 'postmodern conversation' now prevalent within the popular sphere. She accuses television of promulgating a postmodern 'anything goes' mentality that presents a 'grab bag' of undifferentiated and homogenizing notions of difference, where '(a)ll sense of history and all ability (or inclination) to sustain cultural criticism, to make the distinctions and discriminations which would permit such criticism, have disappeared' (Bordo 1991: 115). Postmodern feminism's endeavors to deconstruct the hierarchical dualisms structuring difference and the unified subject are denounced by Bordo. New constructions of subjectivity are dismissed as plastic, artificial multiplicities that

can never acknowledge the reality of women's lived experience (Bordo 1991: 117). I maintain that the arguments Bordo raises against postmodernism only serve to reinforce the dualisms underpinning hierarchical thought that position reality above simulation, nature contra artifice, and self against Other.

Bordo also contests an approach to the postmodern body as a site through which women may actively produce themselves as subjects. She attacks the ability to transform the self as a matter of individual choice; a notion that denies what Bordo considers are larger social inequities that allow only certain subjects particular freedoms. Bordo considers this problematic for a feminist political project that is founded upon improving the cultural, social, political and economic positions of *all* women. Plastic surgery and body sculpting are thus dismissed as control mechanisms that produce the body, while falsely positioning women as empowered and active subjects.

Drawing heavily on Foucauldian notions of the body as produced through power-effects, Bordo argues that postmodern theory erases the 'disciplinary reality' of the normalization of the subject/body through the rhetoric of free-choice (Bordo 1991: 112-3). The notion of liberation and autonomy in an age of consumption and capitalism is closely aligned with the cultural constitution of plastic as a metaphor for liberation, accessibility, democracy and the cult of the individual, as noted earlier in this chapter. Bordo criticizes these very qualities within a postmodern approach to culture, which, she claims, dismisses generalizations as totalizing, preferring to emphasize the particular and the individual. Echoing these sentiments is Nancy Hartsock, who asserts that Foucault's 'stress on heterogeneity and the specificity of each situation leads him to lose track of social structures and instead to focus on how individuals experience and exercise power' (1990: 168-9).

Anne Balsamo likewise applies Foucauldian theory, in particular the notion of biopower, in her analysis of cosmetic surgeries. Her primary criticism is that the viewing technologies used in medical and scientific discourse exercise control upon the female body. The specifically technological nature of the plastic body is emphasized by Balsamo, who asserts that the technological gaze has transformed the body into a site where the physical transformation of the material body (cosmetic surgery) becomes a sign of culture (the cultural ideas of Western beauty) (1996: 56-79). No longer are representations such as Barbie key signifiers of the female technology of consumer capital, but instead material bodies themselves become the sites for cultural

ideals of female beauty. Moreover, by positioning women as objects of medico-techno discourse, Balsamo assumes women have limited access to, and knowledge of, the technologies impacting upon their bodies. As a result, women are accorded little or no agency to refigure the self in an active relationship to techno-culture. This is in keeping with the strand of feminism that considers technology as detrimental to the social, cultural and political position of women in society, as discussed in Chapter One.

In my analysis of Barbie, I consider plasticity in a different sense to the liberalist paradigm of self-determination and free-choice. Plasticity does not function as a means of reinstating the unified subject, nor of condoning the fragmented subject, but as a mode of inaugurating the transformative subject. In response to Bordo's perception of the postmodern project as lacking historical and social grounding, I claim that the discursive practices arising from postmodern understandings of subjects are contextual. Recognizing the proliferation of experiences available to the subject within any given context and at any particular moment may allow for new approaches to subjectivity. The subject occupies a contextual and discursive history, yet is able to respond to the shifting status of the popular through the various modalities of the body experienced in the technologization of everyday life.

Like the plural and decentred subject of postmodern discourse, the concept of the transformative or plastic subject allows for an exploration of the cultural and social contexts in which new figurations of subjectivity emerge. Closely aligned and in conjunction with the confusion of boundaries between marginal and mainstream in the millennial landscape is a disruption of the distinction between self and Other, organic and machinic, nature and artifice, a disruption instigated by the increasing proliferation of mechanical, technical and digital technologies in everyday life. Tiziana Terranova pinpoints this as an ontological shift in both human society and how the body is perceived and experienced within a high-tech world (1996: 167). Underlying this shift, she claims, is an increased exposure to the simulated image in popular media, in conjunction with the increased use of technology in daily life (Terranova 1996: 167). Replacing a representational economy based upon materialist critiques of gender and sexual politics with a post-material discourse of simulation and the virtual, offers a way to re-think representations, bodies, sexualities and the question of identity.

Maintaining the historical and cultural framework in which technology and women are deemed incompatible, Mary F. Rogers interprets Barbie as an icon of the cultural plastic that women's

bodies have become in a technological age — as objects to be manipulated, controlled and dominated (1999: 125). Her sentiments echo, and are informed by, the strand of materialist feminism that associates technology with the masculine desire to control and manipulate nature, and in effect, women. Writing on the plasticity of Barbie, Rogers argues that Barbie symbolizes a type of contemporary body associated with the consumption of 'new technologies of the flesh' (1999: 112). Here she posits Barbie as indicative of the plastic body of endless transformations and eternal youth, manifested via the consumption of mechanisms of control such as cosmetic surgery, fitness clubs and health retreats.

For Rogers, Barbie functions as 'an icon of an emergent, consumerist "somatics" — a technology of the body driven by the idea that our bodies can be whatever we like if we devote enough money and attention to them' (Rogers 1999: 112). The manifestation of the self as 'plastic', as Rogers conceives it, deems plasticity as not only elastic and variable but as a mould casting a fixed bodily ideal. Women are posited as victims of an anti-aging industry that promotes a normative ideal of womanhood as youthful, firm and slender to which women appear to blindly comply.

The influential notion of 'technologies of gender', coined by Teresa de Lauretis, informs the writings of Rogers, Bordo and Balsamo. The phrase speaks of the construction of gender difference by regulatory discourses of techno-social and biomedical technologies (De Lauretis 1987). Like de Lauretis, the above-mentioned critiques of the plastic body and gender constitution understand the body in Foucault's terms: as a product of power/knowledge relations (Foucault 1977: 27-9). Nonetheless, for these feminist materialists, power is never conceived beyond a top-down dynamic, which situates the female subject as the victim of power-effects. Yet I maintain that Foucault's writings in *Discipline and Punish* seek to undo the myth of a totalitarian monopoly of power, in preference to a consideration of the diffuse and unstable nature of power relations. Foucault states that:

power is exercised rather than possessed; it is not the 'privilege', acquired or preserved, of the dominant class, but the overall effect of its strategic positions — an effect that is manifested and sometimes extended by the position of those who are dominated (Foucault 1977: 26-7).

In the search for new formulations for feminist understandings of the techno-human relationship, the interrogations of Bordo and Balsamo prove limiting to a study of posthuman figurations.

Their use of Foucault's theory of power to claim that particular groups hold more power than others, only serves to justify inequality and bodily control as an effect of rigid power networks. This is indicated by Balsamo's self-stated aim to 'describe how certain technologies are...ideologically shaped by the operation of gender interests and, consequently, how they serve to reinforce traditional gendered patterns of power and authority' (1996: 10). For the purposes of *Transformations*, a materialist approach limits the ways in which subjectivities may be thought of beyond embodied enactments, or may create possibilities for understanding subject relations beyond pre-ordained codes of power and authority.

Foucault's body is disciplined and controlled by an abstract power that is primarily linked to institutions such as the clinic, the school and the prison (1977). In this schema, the body is produced by disciplinary mechanisms, such as observation and examination, that function as powers that reside outside of the body. And while Foucault quite rightly observes the role of the social in the constitution of the subject, the generative capacities and possibilities of the body are denied in his framework. I thus position myself against a Foucault-inspired feminism that configures the plastic body as a product of power-effects, in favor of the generative capacities of posthuman figurations that reside beyond the limits of signifying practice.

Although plasticity may offer unlimited potential for the body, feminist critics argue that only certain kinds of bodily transformations, structured upon desired models of femininity, are accepted and encouraged. Paradoxically, technologies of the body are marketed as offering multiple modes of transformation and regeneration, yet the writings of feminist theorists such as Balsamo and Rogers suggest that the plastic body re-inscribes a fixed ideal predicated upon the binary classification of woman as Other. This line of thinking implies that dominant norms of beauty and femininity are presented as unrealistic ideals that are near-impossible to emulate. They do not and cannot reflect the realities of women's lives.

Baudrillard astutely recognizes that 'all these formulas are reductive, in so far as they always revolve around the real — the problem being to exorcise or appropriate it' (1998b: 97). Configuring Barbie as plastic circumvents such reductive interpretations, providing instead an example of a transformative subjectivity brought about by the contestation of the real in an age of technology. In the techno-age of plastic bodies, Barbie invalidates a notion of the material body as the limit point of subjectivity. The plasticity, artifice and malleability of her form contest signification to circulate instead as signs that elude a fixed interpretation.

In this transformative state, subjectivity is not limited to identity but becomes a matter of the degree to which the subject shifts between and within unstable markers such as sex, race and gender. In this regard, Barbie serves as a tool to think through the transformation of bodies and sexual identity in a 'trans' state after the orgy of liberation. The plastic subject thus exists, not as a point of identification, but as a bodily response to the impact of technology upon how the self is perceived and interpreted. Technologies of the body and mass media influence the body in ways that open up possibilities for figuring subjectivity that depart from a unified notion of identity. I agree with Erica Rand's suggestion that Barbie does not solely exist as an ideal of womanhood; a point of idealized identification. The multiplicity of meanings and affective responses brought about by biomedical and media technologies allows for a more complex engagement with the Barbie phenomenon than simply resisting or complying with official functions and uses of Barbie (Rand 1995: 5).

Posing an alternative reading of the plastic body establishes a space to think through subjectivity in relation to popular culture. The plastic body neither conforms to nor resists culture, but indicates a transformative potential for how the subject consumes culture in a technological age and perceives the self. The reading of the subject in terms of plasticity extends the range of possible forms of embodiment, decoding the mindset that writes the plastic body as a technology of control and containment, or as fixed in the real. I consider the plastic body as a transformative potentiality that hacks into the phallogocentric codes that structure ideals of femininity, scrambling a feminist interpretation of embodiment that re-inscribes a fixed and essentialized myth of Woman as nature.

Chapter Four

Fatality, Catastrophe and Simulated Monsters: Negotiating Difference in Posthuman Figurations

I scan the spines of hundreds of plastic cases lining my shelves. Each houses a silver disc upon which music is etched as a digital code. Transformed from the live sounds of the recording studio into the 0:1 co-ordinates of the information grid, the music held on compact disc may be accessed only when decoded by the analytic machines of digital technology. Unlike the musical trace contained in the analogue system of phonography, digital recording re-presents, stores and transmits music as data (Rothenbuhler and Peters 1997: 245). To access this code, I must enter the matrix; a process of selecting, sorting and playing CDs. Without the speed and accuracy of the digital scanner, my eyes skim the titles numerous times. Clumsy, frustrated, I search the files again for the disc. Read: error. I cannot see the title. I know it is in here somewhere. My eyes lock on the CD's clear blue spine and I struggle to retrieve it from my disorderly system of classification.

INTD-90273 MARILYN MANSON MECHANICAL ANIMALS NOTHING RECORDS

Turning it in my hand, my eyes fix on the cover-image (Fig.2). Manson's face elongated and vampiric in its whiteness, with an infra-red stare radiates out at the viewer. A shock of red hair flecked with yellow and blue frames an unsettled and unsettling gaze. His distended form is pasty-white-flesh-made-plastic. His skin, while the color of a plaster cast, displays a plasticity that stretches over his frame to cover and contain his interior elements. This artificial skin, like plasticine, begs to be moulded, disrupted, reformed.

Upon a slate-grey background the contours of his form emerge, bringing with them the potential of his body for contortion and manipulation. This malleable sheath stretches firmly, yet comfortably, over a figuration neither male nor female, organic nor technological. His pulled-back shoulders accentuate a rakish torso flanked by a pair of disturbingly long arms. The viewer's eye is drawn to the small mounds on his chest and an indeterminate genital bulge. Absent are the inversions and extensions of the body that rupture the seamless skin's



Fig.2.

surface and indicate the threat of abjection. There is no sign of leaking nipples, coarse hair, the vagina dentata, the eye of the phallus, or the umbilical remnant of birth.

The cover sleeve effortlessly slips from its plastic case. Two staples pierce the centrefold image as I open it to reveal the Manson figure languidly outstretched upon a sofa constructed of grey tubing (Fig.3). One of the defining features of the Manson centrefold is his metamorphosis into a hybrid of animal, human and machine. Most striking is the transformation of Manson's lower limbs into pincer-like hoofs that define him as the 'Mechanical Animal' of the CD title. Clumsy and cartoonish in their presentation, these bovine appendages challenge the integrity of the organic body, teasing and taunting the viewer to make something of Manson's morphogenesis into animal. Neither organism nor machine, Manson destabilizes the status of the image as either representing self or Other, displacing this binary in favor of the ambiguity of a transitional state that defies a natural order. It is at this site of transition, uncertainty and the in-between that meaning and identity become problematic, and the figuration of the posthuman may begin to be unpacked.

This chapter makes the argument for the posthuman as a boundary form that calls into question ontological configurations of difference. I take the position that posthuman figurations share with the discourse of monsters a confusion of boundaries that challenges what it means to be human. Both act as boundary figures that may be strategically deployed by feminism to disrupt humanism's construction of selfhood. First I establish the continuities and discontinuities between posthuman figurations and images of the monster through an exploration of feminist engagements with the monstrous. By turning to earlier incarnations of the monstrous, namely Goya's painting of *Saturn Devouring One of his Children* (Fig.4), I challenge the ways in which feminism has approached the monster as an organic boundary figure. Through an analysis of this image, I assert that the posthuman demands to be read differently to traditional understandings of the monster.

Posthuman figurations are shown to differ from their monstrous predecessors by residing within a digital economy of representation that disrupts the organic potency of the monster figuration as productive for feminism. Accounting for the disappearance of Otherness in an economy of simulation, as it is theorized by Baudrillard in terms of the hypertelic and excessive tendencies of simulation society, I offer a reading of the posthuman that makes possible new imaginings of the subject that reside beyond the fixity of signifying practice.



Fig 3.



Fig.4.

I return to the Manson figuration to establish an argument for posthuman skin as the site of catastrophe and implosion that renders value systems, including difference, obsolete.

Baudrillard's notion of the catastrophic is strategically deployed in this analysis as a means of negotiating the question of difference and the posthuman subject when all difference is abolished by simulation. Moreover, the issue of biotechnological myth is raised in the context of catastrophe and simulation, in order to question the efficacy of a Barthesian model of myth when applied to an analysis of posthuman figurations in simulation culture. The second part of this chapter is concerned with redressing Barthes' theory of myth as a production of ideology and semiotics.

While Barthes' analysis of myth exists within a pre-determined regime of signs to position the viewing subject, I read posthuman figurations as operating within an order of simulation where the image circulates in a regime of signs with no relation to the real. New possibilities for understanding biotechnological myths emerge from this approach to contemporary culture. I contrast Barthes' structural analysis of myth to Baudrillard's order of the sign by comparing the face of Greta Garbo with the face of Marilyn Manson. This provides a framework to engage with difference as it is negotiated by representations of the posthuman.

Part feline, part bovine, part hominid, Manson is the mutant product of a perverted genetic code. Resplendent with red glowing eyes, a metallic sheen and elongated fingers, he invokes the terror and fascination of the alien-vampire-monster. Accordingly, Manson may be located within what Braidotti has observed as late postmodern, postindustrial society's fascination with 'borderline figures' (2000: 157). The popular cultural trend toward the freakish, vampiric, alien and mutant has recently been theorized by Braidotti in the context of an increasingly technologized cultural climate where 'classical iconographic representations of monstrous others' cross-over and mutate with contemporary techno-cultural artifacts (2000: 157).

As a boundary figure who resists classification within the natural order of things, Manson's posthuman is also closely aligned with the field of teratology — the scientific discourse of monsters. The posthuman, like the monster, occupies potentially contradictory discourses and signifies 'potentially contradictory meanings' (Braidotti 1996: 135). It is this ambiguity that typifies the monster, eliciting anxieties concerning the boundaries and borders of the body, subjectivity and the human. Monsters simultaneously threaten and uphold the integrity of the

human, serving as a deviant category, or marginal extreme through which the limits of normal, natural, human identity are defined and secured (Cohen 1996a: preface ix).

Various theorists have observed that the monster functions as both Other to the normalized self, and a third state or hybrid entity that disrupts subject constitution understood in terms of hierarchical binary dualisms (Braidotti 1996: 141, Cohen 1996b: 7, Shildrick 1999: 78). This ambiguity is explained by Braidotti as follows:

The peculiarity of the organic monster is that s/he is both Same and Other. The monster is neither a total stranger nor completely familiar; s/he exists in an in-between zone. I would express this as a paradox: the monstrous other is both liminal and structurally central to our perception of normal human subjectivity. The monster helps us understand the paradox of 'difference' as a ubiquitous but perennially negative preoccupation (Braidotti 1996: 141).

Braidotti has described on numerous occasions the conflation of difference with deviance and monstrosity, and the ontological grounding of difference within a dialectic where women, ethnic, racialized and non-human Others are devalued in opposition to a unified, positive, masculine model of the self (Braidotti 1994a: 83, 1996: 141, 2000: 164). Within a system of binary dualisms, the monster comes to stand for difference from the established norm, and this difference is always construed as negative. In Braidotti's words, '(t)he freak, not unlike the feminine and ethnic "others", signifies devalued difference' (2000: 164).

As already noted, however, the monster also displays a hybridity that disturbs the certainty of dualistic thinking. One example of the monster's liminal status within the cultural psyche can be seen in the construction of the relationship between the monstrous and the natural. In her discussion of conjoined twins, Margrit Shildrick locates the monster as unnatural yet not outside nature, functioning as an 'instance of nature's startling capacity to produce alien forms within' (1999: 80). The monster is aligned with nature along the dichotomized gender divisions that see femininity associated with (among others things) the body, nature, objectivity and Otherness. Yet the monster could never be defined as a natural phenomenon. Indeed, the monster acts as a benchmark against which the normal and natural are constructed and legitimated.

The question of the monstrous and its relationship to the feminine resonates with the associations between women and technology. The construction of women, technology and nature as Other to the primacy of male reason is accompanied by an understanding of women and technology as

simultaneously compatible *and* incompatible. This seemingly paradoxical and ambivalent approach to technology forged the basis of my argument that posthuman figurations reside beyond categorical constructions of technology as either good or bad for women. Like these debates, an analysis of the monstrous is preoccupied with the ambiguity that surrounds notions of the natural, the technological and the feminine.

In *Nomadic Subjects: Embodiment and Difference in Contemporary Feminist Theory* (1994a), Braidotti establishes a link between monsters, mothers and machines at the site of contemporary reproductive technology, which she argues 'displaces women by making procreation a high-tech affair' (1994a: 79). Through a survey of the history of teratology Braidotti charts a shift in perceptions of the monster, from pre-Enlightenment discourse that perceives the monstrous as 'something wonderful, fantastic, rare, and precious' (1994a: 85), toward a scientific paradigm where the monstrous is something to escape, control and suppress. Accompanying this denial of the monstrous within scientific discourse is the abolition of the monstrous power of maternal desire and imagination (Braidotti 1994a: 84-86). The status of the monster as anomalous Other to the human, masculine norm, is shared by the feminine. Moreover, it is at the site of the body, as the negation of the masculine mind and reason, that the feminine and the monstrous are associated in terms of the horror and fascination of abjection (Kristeva 1982, Creed 1993).

In charting a trajectory from the organic monsters of the pre-Enlightenment period to contemporary reproductive technologies, Braidotti claims that science strives to make perfect that which is abnormal in order to deny the wonder and fascination of the monstrous. As she explains:

Ever since the mid nineteenth century, the abnormal monstrous beings, which had been objects of wonder, have fallen prey to the massive medicalization of scientific discourse. The marvelous, imaginary dimension of the monster is forgotten in the light of the new technologies of the body (Braidotti 1994a: 88).

Yet in differentiating 'old' monsters of pre-Enlightenment times from the 'new' monsters formed through the technologization of the body and reproductive technologies, Braidotti privileges the organic monster as that which is most productive for feminism. For not only is the organic monster associated with maternal powers of desire and imagination, maintaining the primacy of the maternal in the process of reproduction, but the pre-scientific monster challenges masculine symbolic order through its status as a figure of wonder and fascination.

Braidotti expresses nostalgia for the maternal and feminine untainted by the invasion of masculinist technologies of control and classification. In doing so she replays the notions of women as incompatible with technology, and technology as unproductive for women; a position I have already critiqued. By maintaining the monster in alignment with the organic Other, she ensures that the monster and human operate as mutually constitutive terms. Braidotti argues that the advent of biological sciences in the sixteenth century marked the beginning of a flight from the feminine and a control of the monstrous and maternal, leading to a diminished wonder in the monster (1994a: 89). In claiming that modern science is a masculinist pursuit to control the natural, maternal and feminine, Braidotti implies that the new monsters of contemporary technoscience have no positive connection with the feminine. For Braidotti, the medicalization of the body denies women the agency and power of maternal reproduction.¹ Haraway contests such an approach, suggesting that the monsters of technoscientific worlds offer the promise of new and productive affiliations between the feminine, the non-human and the technological (1992: 327).

Gail Weiss has also been particularly critical of the valorization of the monstrous as a subversive feminist strategy. Braidotti's nostalgia for the marvelous aspects of the monster that have been diminished by contemporary reproductive technologies, is attacked by Weiss as failing to acknowledge that biotechnologies escape horror not through the effacement of the monstrous, but 'through a new fascination which brings its own horrifying possibilities' (Weiss 1999: 165). By replicating, rather than denying the wonder and horror of the monster, Weiss concludes that biotechnology takes away from the monster much of its efficacy as a feminist metaphor for a difference that threatens to disrupt phallogocentric models of selfhood (Weiss 1999: 174). Moreover, contemporary reproductive technologies are criticized by Weiss as re-inscribing and legitimating 'oppressive corporeal practices' at the level of semiotics, representation and the virtual (Weiss 1999: 174).

While I agree with Weiss's assertion that Braidotti's approach to new technologies via the metaphor of the monster is problematic, I challenge Weiss's point that the act of replication functions as a normalizing or banal strategy that neutralizes the potency of the monster. I argue later in this chapter, through an analysis of Barthes' theory of myth, that new myths of technology

¹ See Chapter Six of this thesis for a comprehensive engagement with feminist studies of science that expose the masculinist assumptions underpinning scientific discourse.

do not function as a naturalization of culture, but employ repetition as a disruptive, fatal strategy based upon artifice, simulation and unreality.

For the moment, however, I contend that it is not sufficient to interpret posthuman figurations through a theory of the monstrous that remains within the framework of organic difference. While Manson could easily be positioned in the continuum of the history of teratology, it is within the era that Braidotti calls 'cybernetic teratology' (1996: 141) that he belongs as one of many inorganic hybrid forms of popular culture. Braidotti interprets cybernetic teratology as a 'genetic turning point in the post-nuclear era' instigated by environmental degradation and toxic effects (1996: 141). In a challenge to Braidotti's definition, I argue that the monstrous inorganic cyber-body, while closely aligned with the teratological organic Other, is not simply the random product of environmentally instigated mutation, but is actively produced by technological and scientific interventions that refigure the limits of the body and representation.

As Braidotti's genealogy of monster discourse makes evident, the posthuman is the latest borderline figure in a long line of monsters, mutants and hybrids throughout ancient mythology, literature, science fiction and the biological sciences. I argue that within a representational economy of simulation culture, the posthuman figuration of Manson demands to be read differently from earlier renditions of the monstrous as the self's Other. As I have argued throughout *Transformations*, digital images require new modes of analysis and interpretation because the experience of the visual is altered within a culture of simulation. No longer is meaning made via the oppositional structuring of real and illusion, self and Other. Within the realm of digital image-making, the real and the imaginary are no longer separate spheres, as both categories are abolished in favor of the hypereal.

Within the history of Western painting, the posthuman is preceded by a rich and varied genealogy of freaks and monstrous entities such as the devilish creatures inhabiting Hieronymus Bosch's *Garden of Earthly Delights* (1500-1510) or the fantasy figures of surrealism, typified in the work of Salvador Dali and Max Ernst. I take as my example here Francisco Goya's oil painting of 1820-23 entitled *Saturn Devouring One of his Children* to indicate how the categories of the real and the imaginary are maintained within an order of simulacra dependent upon the inert concept of the natural (Fig.4). Goya's painting depicts the monstrous image of Saturn emerging from a murky darkness. There are no other forms or figures in the painting to situate the narrative historically or culturally. Saturn fills the frame, illuminated against the dark background by a

pool of light. His angular and muscular form grips a small, limp body. With mouth agape, Saturn is caught in the act of devouring his victim. His wild hair and bulging eyes radiate with a white luminescence that accentuates his unnatural monstrosity.

Saturn is depicted by Goya as the crazed antithesis of a humanity whose natural order is that of civility and rationality. This accords with the understanding of the monster as a figuration through which the self is defined as natural and normal, as well as a hybrid form that threatens to do away with the hierarchical dualisms upon which the human is constructed as a coherent category. As a figure of the uncanny, that which is like yet unlike the human, Saturn provides a means of understanding our place in the world. For within the logocentric order, humanness is secured against what it is not. As noted in Braidotti's study of monster discourse, a unitary and singular notion of selfhood is re-inforced and legitimated in the forms and images of the Other; the feminine, the racialized, the monstrous and the technological Other. Sigmund Freud, however, observed that the myth of the Gods acted as a cultural ideal upon which man projected his fantasies and 'attributed everything that seemed unattainable to his wishes, or that was forbidden to him' (Freud 1969: 28). As a phenomena that is more and less than human, the mythical figure is configured as both Other and ideal.

In the act of cannibalism and infanticide, the subject of ancient myth is depicted here as horrendous and unnatural, displaying the magical and mythical powers of ancient Gods, while evoking the terror of humanity's own consumption and violence. As a frightening echo of what humanity has become, or the self's Other, Saturn is an assemblage of multiple meanings within the context of the barbarism of nineteenth-century revolutionary society and the gore and terror of ancient myth. In keeping with his renditions of the stark violence and suffering of humanity, depicted in such works as *Executions of the Third of May* (1808), Goya takes an inert and unreal figure from ancient myth and imbues it with a sense of the violence of which society is capable. Functioning simultaneously as a rendition of the real and the unreal, or reflection of the self in the form of an inhuman Other, Saturn acts as a boundary figure who upholds the natural world as reality.

Posthuman figurations of contemporary society demand to be read differently to the monstrous and inhuman subject of *Saturn Devouring One of His Children*. Goya's image precedes the industrial revolution and the advent of mechanical reproducibility. By way of its production, it maintains a commitment to the notions of origins and nature. Goya upholds an unproblematic

relationship with the real within his image. The real and the natural are what the representational and the artificial are not. His imagery of the monster operates as a mirror that allows us to know ourselves as that which is not monstrous, but human.

Saturn Devouring One of his Children serves as a reminder that the idea of monstrous or hybrid figures is not new. Images of the monstrous, as precursors to contemporary hybrid forms like posthuman figurations, function as a genealogy of monstrous and mythical forms. Yet a simple juxtaposition of earlier visual forms and new modes of representing the monstrous fails to consider how the image may be understood within a context of the visual, where the difference between the real and the imaginary is blurred. Contemporary figurations of the posthuman create new possibilities for feminist engagements with the subject that reside beyond an understanding of the fantastical and transformative images represented throughout earlier imaging practices such as painting, photography and cinema. Moreover, I deem it crucial for a feminist engagement with contemporary figurations of posthuman, post-gender entities, to examine the impact of technology upon the limits of the body, and the accompanying shift in relations between the real and representation within an economy of simulation.

Contemporary incarnations of the transformative posthuman blur the distinction between the human as the site of a unified, coherent self and the non-human Other of technology. While Goya's Other remains locked in a dialectical relationship with the self, I argue that the posthuman figuration cannot be contained in such terms. As a product of simulation culture, it has no Other; no referent from which to constitute the self. Manson's image on the CD is not a representation of Manson in 'real life'. Rather, Manson is himself a simulacrum, unhinging the dichotomy between self and Other, original and representation. There is no 'original' Manson to be located outside of the image. While the monstrous inhuman of ancient myth retains the Otherness of alienation, Baudrillard argues that Otherness disappears in a culture of simulation, 'when all becomes transparency and immediate visibility, when everything is exposed to the harsh and inexorable light of information and communication' (1983: 130).

When Baudrillard speaks of the transparency of the subject, he is referring to the moment when electronic media and communication proliferate and accelerate to the point where the subject is no longer visible within the relay of information. Not only does the subject disappear in the hyperreal cacophony of visual signs and information overload, but the social system is said to

exceed its limit point, to approach an ecstatic state through the accumulation of positivities in the form of the endless proliferation of information and signs. Baudrillard observes that:

Things have found a way of avoiding a dialectics of meaning that was beginning to bore them: by proliferating indefinitely, increasing their potential, outbidding themselves in an ascension to the limit, an obscenity that henceforth becomes their immanent finality and senseless reason (1990b: 7).

By exploring what resides beyond the extremities of the social, Baudrillard is attempting to pass from a dialectical system of interpretation into a space where referential values are impossible. It is at this point of saturation by the precession of simulacra that the social is pushed beyond its limits to 'the point where it inverts its finalities and reaches its point of inertia and extermination' (Baudrillard 1990b: 10-11). This form of inertia is, however, not an empty void that is drained of all meaning, but a fatal site of excessive over-multiplication that results in a reversion or implosion of dichotomous value systems.

Baudrillard refers to this accelerated growth of the world pushed beyond saturation point as hypertelic. Like a cancer, hypertelic functions as a strategy to refute origins within a process of endless proliferation. Finality is denied by hypertelic process, whereby all value is exterminated in an overdetermination of forms (Baudrillard 1990b: 13). This overdetermination is of the order of the hyperreal, where reality is no longer opposed to falsity, but accumulates to become that which is more real than real. Accordingly, Baudrillard maintains that:

To the truer than true we will oppose the falsier than false. We will not oppose the beautiful to the ugly, but will look for the uglier than ugly: the monstrous. We will not oppose the visible to the hidden, but will look for the more hidden than hidden: the secret (Baudrillard 1990b: 7).

This excess of positivity is radically different to the struggle of dialectics that sees the beautiful oppose the ugly and the true oppose the false. Meaning is no longer a question of opposites, but of excesses that obliterate stable oppositions by collapsing inward. Manson enacts this proliferation and disappearance by exceeding the limits of the natural body.

The centre spread of the *Mechanical Animals* CD sleeve notes sees Manson stretched out on a sofa (Fig.3). This sofa upon which Manson reclines is grey and synthetic; a metallic sheen reflecting off its surface. Its tubular shape and long frame appears distorted and artificial. In this regard, the sofa complements Manson's own plastic form. The surface of his skin and the surface

of the sofa display the characteristics of artifice and technological construction. These forms give the appearance of merging into one other, demanding that the viewer consider where the inanimate object ends and Manson begins. The plasticity of the two forms implies process, a stretching beyond the boundaries of the subject's body and the sofa object upon which Manson reclines. Rather than oppose the sofa object to the Manson subject, or 'oppose the fixed to the mobile', Manson appears as 'more mobile than mobile: metamorphosis' (Baudrillard 1990b: 7).

Through this play of surfaces, the distinction between the subject and the object is disturbed. Manson's metamorphosis into a mechanical animal is made possible through the fatality of reversion, whereby his skin pushes beyond its limits, imploding in on itself to annihilate the difference between subject and object, and the structure of signification that differentiates the two. It is this process of implosion that ensures Manson's plastic body eludes rupture. His taut, plastic mould indicates containment and flexibility. His elongated limbs and distended fingers further signal an elasticity that threatens to morph, mutate and shift into something else, yet never rupture. Absolute fragmentation of the subject is made impossible by fatality, which ensures the subject disappears at its limit point. The subject does not explode outward, but disappears; its form reverses inward in an act of metamorphosis that produces *something else*.

Therefore, Manson's skin can no longer function as a boundary site that differentiates self from Other, nature from technology, and the organic from the artificial. Instead, skin signals the point of transformation and liminality where self becomes Other, nature fuses with technology and the organic cannot be discerned from artifice. Judith Halberstam has written of skin as 'at once the most fragile of boundaries and the most stable of signifiers; it is the site of entry for the vampire, the signifier of race for the nineteenth-century monster. Skin is precisely what does not fit' (1995: 163). Through a discussion of Jonathan Demme's 1991 film *The Silence of the Lambs*, Halberstam argues that contemporary images of the monster locate horror at the level of the skin, thereby disrupting the established gothic model of horror as one of surface and depth. Working across a range of scenes within the film, Halberstam illustrates how skin functions to confuse boundaries such as interior and exterior, consumption and being consumed, male and female. What ensues, she argues, is a construction of a posthuman gender founded upon mis-identity that remakes gender and the humanistic assumptions upon which identity is forged (Halberstam 1995: 176-7).

Similarly, Manson's emphasis upon his plasticity of form suggests that he exists only as surface, as a simulation without any relation in the real. Manson's grey and pasty form is a flesh that is made synthetic, digitally altered to produce the effect of a plasticine-moulded construct. The function of skin as a boundary between biological interiorities and the external invasions of technology is thus rendered obsolete. No longer is the technological/human interaction configured in terms of a prosthetic extension or invasion of the unified and organic self by technology. Instead, posthuman configurations contest the separation of the organic and machinic, the human and non-human in favor of a symbiotic and contaminated interaction whereby interiorities and exteriorities, self and Other, no longer exist. Chapter Six further explores the question of the techno-human boundary in relation to the increased prevalence and acceleration of media and communications. As Manson proliferates, both in terms of digital image reproduction, and the elasticity and endless possibilities of the body, he surpasses the finalities of binary oppositions to reside beyond the fixity of signifying practice. Indeed, Manson is that which Halberstam says 'does not fit'; that which goes beyond established categories of gendered identity.

Manson proves disturbing because he destabilizes a coherent identity that is structured by a binaristic system of meaning determining gender and race, the natural, originary and human. Unlike the monster, which functions simultaneously to destabilize and legitimate human identity, Manson destroys systems of value by exceeding the limits of the body and signifying practice, and the possibility of forging an identity predicated upon self/Other relations. In this regard, Manson shares with Barbie a plasticity of form that emphasizes fluidity and malleability. Reading Barbie as a transformer in the previous chapter opened up the potentialities of protean morphing and shifting to contest established formulations of the body as the locus of a fixed identity. The processes of repetition and reproduction evoked by plastic as a substance of simulation, imitation and inauthenticity, are evidenced in the figures of both Barbie and Manson. Constituted by plastic, a substance of transformation and simulation, Manson contests an interpretation of subjectivity as fixed, essential and originary, acting instead as a transformative subject who scrambles the binary codes structuring conventional notions of identity.

Without the bodily markers that contribute to the construction of gender, Manson defies the natural order. Manson's bodily mould encases a pair of barely-discernible breasts and an ambiguous genital bulge. These amorphous grey lumps suggest that Manson is no androgene, but a more complex figuration than either male or female. Manson's sexually indeterminate status

destabilizes identity predicated upon the oppositional dualisms of 'man' or 'woman'. Sexual status is not denied, but becomes a proliferation of possibilities opened up by the posthuman condition. Anatomical being is thus no longer a stable referent as Manson's sexual markers exceed the limits of the natural body. By blurring the corporeal signifiers of gender within a context of digital simulation, Manson not only problematizes gendered difference, but the very status of the body and embodied reality as the sites where identity resides. Gender, like skin, is a surface effect, rather than a marker of identity locatable in the body. By confusing his status as man or woman, machine or organism, Manson defies categorization in a regime of binary difference. Difference, as a marker of sexual, racial and ethnic identity is under attack.

To interpret Manson as simply negating gender difference, however, is to bypass the key dimension of the technological in reshaping the very status of the human. I argue that Manson's potency for refiguring a feminist politics of the subject lies not in the negation of sexuality, but in the opening up of difference beyond binary dualisms. The move toward a multiplicity of subjectivities and bodily experiences is instigated by the interactions between the organic and the technological. No longer the source of the authentic or natural, the shifting boundaries of the corporeal in turn refigure sexuality, race and gender as fluid and displaced terms. Manson opts for a skin that is neither male nor female, neither organic nor technological, but something new that refutes essentialist notions of the body and the natural, occasioning a range of possibilities for what might constitute subjectivity beyond the limits of the body and identity.

Manson functions as a fatal site, a place of unstable signification that cannot be contained within an economy of exchange that relies upon the dualistic nature of difference. Baudrillard tells us that crossing over into the space beyond signification sees hypertelic growth paralleled by an implosion or reversion, where that which is prolific also disappears. The transexuality displayed by Manson is one such example of an excessive proliferation of the signs of sex that pass into fatality. Baudrillard has written of transexuality as a mode of play between the signs of sex. Transexuality is not necessarily confined to an anatomical state, but is a negotiation of sexual indifference that inverts the established play upon sexual difference and its foundation in pleasure. Rather, sexual indifference focuses 'on lack of differentiation between the sexual poles, and on indifference to sex *qua* pleasure' (Baudrillard 1999: 20, italics in text). Baudrillard cites Andy Warhol, Michael Jackson and La Cicciolina as examples of a sexual ambiguity; a lack of gender specificity 'where sexuality is lost in the theatrical excess of its ambiguity' (1999: 22). Sexual indifference is everywhere. The proliferation of sex has ensured its disappearance. The

sexual ambivalence displayed by Manson ruptures semiotic order, so that coherent meaning is not only challenged, but made impossible. For Baudrillard, this fatal strategy is a catastrophic process.

I suggest that in preference to functioning as a coherent sign or meaning, Manson circulates as a catastrophic subject. Within a culture overrun by the speed and proliferation of digital technology, Baudrillard makes the point that our experience of being a subject is fundamentally altered. Postmodernism's fractured and dispersed subject in crisis no longer suffices as a model through which to articulate subjective experience. Instead for Baudrillard, the subject is understood more appropriately in terms of catastrophe. Catastrophe is the excess, acceleration and precipitation typified by contemporary society. Unlike Deleuze and Guattari's productive possibilities for the subject, catastrophe is a fatal strategy whose potency resides in the unmaking of the subject and the triumph of the object. Figuring Manson as a catastrophic subject offers a strategy to re-think the relationship between representation and reality in a way that exceeds binary thinking. As such, catastrophe offers a mode of engaging with posthuman figurations beyond the limitations of monster theory.

Baudrillard's notion of catastrophe allows us to re-conceive the relations of reality against representation, and subject versus object, upon which a politics of identity depends. Subjectivity eludes definition within a self/Other dichotomy, becoming instead a process of disappearance, catastrophe and fatality. Moreover, configuring the subject as catastrophic contests a Marxist-inspired model of the resisting subject. Understanding the subject as resistant to popular culture is a strategy that secures identity in resistance to particular aspects of culture. In this schema, subjects and object remain firmly opposed. Catastrophe, on the other hand, operates to ensure identity's disappearance within the acceleration and proliferation of popular cultural signs and artifacts.

Rather than focusing upon the centrality of the subject, Manson's catastrophic posthuman form encourages a decentralized mode of figuring subjectivity. In this sense, posthuman figurations do not pose as objects or subjects unto themselves, but act as fatal sites that displace the value system upon which subjects and objects are constructed in relation to one another. In the process of reversion, the possibility of making meaning is denied. The potential for this mode of theorizing for feminism may be located at the point where the logic of dualistic thinking is exceeded, where disappearance opens up meaning. Following this schema, subjectivity forged

upon identification with the posthuman, is made impossible. Rather, subjectivity is understood as a series of displacements, as identity cannot be secured in relation to popular images in terms of identification or resistance. Identity is abolished by posthuman figurations in favor of a model of the subject that is unstable, transformative and catastrophic.

Manson signals a catastrophe for humanism. Herein lies his potential to disrupt myths of technology that are couched in terms of good or bad. Manson is certainly no innocent; no random anomaly produced by the freak mutation of genetic material occurring naturally within the gene pool. He is not of the order of inorganic monsters defined previously in the chapter by Braidotti. Manson's slate grey sheen evokes the gleam of the microchip and sterility of the machine, firmly positioning him in the realm of digital simulation and technological innovation. Yet the posthuman figuration is not a case of technology versus nature, good versus bad. Manson makes a deliberate and considered play upon the potential of technobiological control and manipulation of humanity's future, operating as a mythic mediator in this circuit of social imaginary and scientific discourses.

As the site of confusion between both the species divide and the categorical distinctions between specialist discourse and popular culture, Manson's posthuman hybrid of animal, machine and human transforms and recodes highly specialist and often complex knowledges such as biotechnology and information technology. Manson gives the impression that he has been moulded into shape, yet can morph, implode or turn against the fixity of meaning. In effect, posthuman figurations such as Manson function as mediators between high and low; between the specialist discourses of biotechnology and popular cultural representations. According to Katherine Hayles, the posthuman can be understood as unfolding along the axis of multiple cultural and technical locations, emerging from complex, highly specialized discourses such as artificial intelligence, virtual reality and biotechnology, as well as popular culture sites including science fiction literature and popular film (1999: 247). This confusion of categories through which the posthuman emerges reflects the postmodern breakdown of the divide between high art and low or mass culture, by signaling the intermixing of biotechnological narratives with science fiction fantasy. This, of course, is the order of the hyperreal; a Baudrillardian concept I have explained as the point where fact and fantasy are no longer distinguishable. The function of the once separate disciplines of advertising, art, politics and science to stabilize meaning is abolished in the context of the hyperreal. As the distinctions between autonomous spheres no longer hold,

the production of meaning within particular categories and genres is made impossible. Meaning instead resides in multiple locations, beyond the fixity of signifying practice.

The collapse in the distinction between scientific fact and science fiction fantasy thus forces another mode of engagement with contemporary images. For when highly specific fields of knowledge and specialized discursive practices such as biotechnology converge and intermix with popular cultural sites, representations demand to be negotiated differently. I argued in Chapter Two that approaching the image in terms of simulation ruptures finite distinctions between what is real and what is illusion. By contesting a value system predicated upon binary difference, simulation encourages fluid, contradictory and partial engagements with images, complicating a model of the self as either entirely resisting or complying with particular aspects of culture.

The contrived moulding and casting of Manson's greying form is devoid of the abject markers of the organism, such as the umbilicus and nipples, implying a challenge to the limits of the natural body. I resist an interpretation that re-inscribes the myths of technology as erasing the body in favor of the abstract information of the machine, or as signaling a flight from the material and maternal conditions of bodily experience. Without an umbilicus, Manson explicitly rejects the maternal and denies the process of birth. In doing so, he questions the notion of origins in an age where the involvements of medical technologies in the birthing and reproductive processes are commonplace. Like the cyborg before him, Manson reminds us that a state of nature contra the artificial is fast collapsing. The most prevalent criticism to emerge from the associations between reproduction, technology and feminine is the suggestion that technology displaces the maternal, an argument sustained by Braidotti in her study of monster discourse. As I have argued, this position is problematic as it construes technology as masculine, and locates the feminine and the natural as its opposing terms.

Having established an argument against understandings of technology as either beneficial or detrimental to women, and posing posthuman figurations as sites of unstable signification that disrupt signifying practice, I suggest that Manson disturbs contemporary myths associated with biotechnologies. In keeping with my approach to feminist discourses on technology, I resist a coding of biotechnology as good or bad. Instead, I consider the ways in which popular culture disrupts and makes ambivalent complex and highly specialized discourses such as biotechnology and digital technologies. As I have shown, both here and in Chapter One, the dominant myths

surrounding biotechnology are those of technology and the discourse of monsters. From Mary Shelley's *Frankenstein* to Dolly the sheep, biotechnology has been intimately associated with the monstrous and that which threatens human integrity. I look to posthuman figurations to offer alternative modes of subjectivity that radically alter the conventional status of the subject within techno-scientific discourse as either victim or master of technology.

I argue that it is the posthuman figuration *as simulation* that assists in transforming myths of biotechnology that uphold established constructions of the body and identity. Writing on shopping malls, Meaghan Morris makes the observation that 'commercial culture today proclaims and advertises, rather than "naturalizes", its powers of artifice, myth invention, simulation' (1993: 306). In keeping with this approach, I want to suggest that Roland Barthes' model of the myth of culture in everyday life is no longer sufficient to explain how popular culture operates in the context of simulation.

Myth functions, according to Barthes, as a naturalization of culture in the popular psyche. Barthes makes this assertion in his key text *Mythologies* (1957), where he argues that ideology is reproduced and expressed in everyday objects via the function of myth as an everyday language (1973: 11). In the series of short essays that constitute *Mythologies* Barthes aims to demythologize myth, reflecting upon fragments of everyday life and bourgeois culture such as cars, soap powder and steak and chips. Barthes' primary concern within this text is to examine how myth functions in the spectre of the everyday, and to expose the ways in which mass culture is naturalized and normalized. Myth functions in the naturalization of culture, according to Barthes, via ideology and semiology.

As a signifying practice, myth operates as a communicative form that makes meaning (1973: 109). Barthes draws heavily here on Saussure's theories of language as a system of signs through which the world is constructed. While Barthes differs from Saussure by firmly locating myth within a historically determined sign system, Barthes nonetheless maintains a commitment to understanding the structure, rather than the content, of the text founded upon an underlying system of meaning (1973: 111). As ideological tools, myths are cultural constructs that function to mask systems of power. Myth, in Barthes' terms, is '*depoliticized speech*' (1973: 143, italics in text). In keeping with Althusser's understanding of ideology as the reproduction of dominant systems through the imaginary relation of individuals to the world in which they live, Barthes claims that '(w)hat the world supplies to myth is an historical reality...and what myth gives in

return is a *natural* image of this reality' (1973: 142, italics in text). Myth thus empties everyday objects of any political significance, rendering them natural, powerless and legitimate.

Although Barthes' concept of myth relies upon of the collapse of the artificial and the natural as separate categories and exposes such terms as cultural constructs, myth is said to operate as an ideological practice that produces reality. Compare this to the current sign order of simulation, where artifice and nature collapse in an act that displaces, rather than legitimates the real. I would like to pursue then, the culture of simulation that Baudrillard advocates as a model of figuring signification that challenges Barthes' notion of myth as a production of ideology and semiotics. I argue that a biotechnological, informational and digital age requires a different model of reading myth that takes into account how visual images are experienced as simulation models. I deploy Baudrillard's theory of simulation as a strategy to further understand how meaning operates within a cultural climate of digitization, and the implications of a politics beyond binary difference for figuring feminist subjectivity. Like Morris, I choose to reconsider the established understanding of myth as a strategy that naturalizes culture. I favor a projection of myth as a simulation that disrupts the seamlessness of signifying practice.

While Barthes' later writings such as *S/Z* (1974), *Image, Music, Text* (1977) and *Camera Lucida* (2000, originally published in 1980) signal a shift in scholarly practice away from a structuralism concerned with ideology effects and the interpretation of textual meaning, his concept of myth maintains cultural currency as a mode of explaining how representation operates within culture.² Contemporary discourses of biotechnology and digital culture are often interpreted through Barthes' theory of myth, and popular representations are thus said to naturalize or 'make safe' the hidden dangers of biotechnology. This tendency to read artifice as normalized through culture is evident in feminist debates pertaining to technology, popular cultural images, plastic bodies and the monstrous (explored in Chapters One, Two, Three and Four respectively). Limiting a study of posthuman figurations is a feminist approach to practices of representation as a misrepresentation of the real, a stance underpinned by an assumed relationship between popular cultural images and lived reality. I resist a reading of posthuman figurations in terms of ideology and semiotics. Indeed, I position myself against a second-wave feminist approach to popular

² Barthes' later turn toward the mystical, phenomenological and subjective aspects of textual meaning are discussed in Chapter Two in relation to his 1980 work *Camera Lucida*. Later, in the same chapter, I locate the shift from ideological to post-structural approaches to practices of reading and reception in reference to Barthes *Image, Music, Text* of 1977.

culture couched in such terms. Rather, I argue that the relationship between visual images and the real needs to be understood differently within an economy of simulation.

Representation functions in the order of simulation by replacing the fixity of signification with an indeterminacy that puts an end to stable oppositions. This enables new ways of configuring subjectivities and bodies within the contemporary cultural landscape. An understanding of posthuman figurations in popular representational practice depends upon a reformulation of modes of signification. As the order of exchange value shifts to a system of signs, signifying practices based upon the disclosure of a text's meaning must undergo radical transformation to accommodate the contemporary experience of the visual image as one of simulation models devoid of any relation to reality. In a culture of simulation the sign does not mask a reality, it is reality.

To further explore the changing nature of signification and its implications for popular cultural engagements, I focus on the face of Greta Garbo as described by Barthes in *Mythologies*, contra the face of Marilyn Manson. Central to this re-figuration of the concept of myth is the recognition that the face of Garbo and the face of Manson emerge from two different economies of representation — the cinematic and the digital.

Describing Garbo in the film *Queen Christina*, Barthes asserts that her 'make-up has the snowy thickness of a mask: it is not a painted face, but one set in plaster' (1973: 56). In likening Garbo's skin to a plaster cast, Barthes reveals the function of myth as that which obscures reality. Garbo's face-mask is the myth, unchanging and perfect; forever upholding the 'Platonic Idea of the human creature' (Barthes 1973: 56). Her face circulates as the sign of perfection, a sign of the real. The mask never cracks, never deteriorates. Artifice is made natural through the constancy of Garbo's face, described by Barthes as an 'absolute mask' (1973: 56). Fixed as the ideal of Woman, her face is an archetype that never changes. This mythic woman is upheld and legitimated by representation; what resides behind the mask is never exposed. For myth to function it must remain within the binaries of surface and depth, reality and artifice.

The cinematic face is Garbo's mask, her copy that confuses yet relies upon an original in order to function as myth. As Walter Benjamin has theorized, while mechanical reproduction displaces the aura of the original, there remains an original nonetheless (1968b). For cinema, like photography, is an analogue reproduction of the second order, maintained within a relationship

between an image and its reality. Upholding the distinction between the image and the real is crucial to the function of myth in Barthes' terms; myth is the false representation of a reality that resides behind the sign. Without a distinction between the real and representation, there can be no myth. Hence myth must maintain a differentiation between the image and its referent, illusion and truth. Accordingly, the face of Garbo operates as myth upon the cinematic screen by sustaining the relationship between sign and referent. For myth to mask reality, it must assume an unproblematic notion of the real. I have argued against a dichotomized projection of the real and representation throughout *Transformations*, advocating instead an understanding of posthuman figurations in terms of process and possibility.

Unlike Manson, whose fluidity of surface disrupts the categories of gender, the fixity of Garbo's face ensures that gender distinctions are secured. Although Barthes describes Garbo's face as 'almost sexually undefined' (Barthes 1973: 56), he never challenges her status as a woman. As flesh set in plaster, Garbo's face is captured and fixed within the signifying codes of meaning. The female 'face-object' resides within the order of the patriarchal imaginary. The boundaries between male and female, self and Other are maintained by the unmoving surface of her skin that retains gender in a dichotomous mould. Compare this to the plasticity of Manson's skin. Like Garbo, Manson displays the fragility of a plaster cast, yet will not break. For Manson's skin is more like plasticine than plaster. Skin, like gender, is deployed by Manson as a malleable and fluid surface phenomenon. The posthuman figuration hides no truths about gender beyond what is represented. Rather, in an economy of simulation where the relationship between the image and its referent collapse, simulation becomes reality. There is no falsity to be revealed by the simulated image. The myth of origins cannot be upheld. In accordance with Baudrillard's understanding of the shifting status of the image, Manson does not reflect, mask, pervert or obscure the absence of reality (Baudrillard 1994: 6). In a world of simulation, the sign is real.

Baudrillard's assertion that the sign can only be exchanged for itself thus problematizes a theory of myth that ensures Garbo's face is not real, but is a representation that obscures reality. In much the same manner, second-wave feminist film theorists approached the representation of women within cinema as untruthful, as distorted accounts of women's lived experience. Like Barthes' theory of myth, early feminist analyses of representation were founded upon theories of ideology and semiology, and advocated material existence and experience as the true site of women's reality.

For Barthes, Garbo represents the 'fragile moment when the cinema is about to draw an existential from an essential beauty, when the archetype leans towards the fascination of mortal faces, when the clarity of the flesh as essence yields its place to a lyricism of Woman' (Barthes 1973: 57). Here Barthes exposes the naturalization of the cultural construct Woman. Garbo is revealed as an archetype, an essence of woman constructed on the cinema screen. As myth, her face is deployed by ideology to present a false truth about Woman. Yet as Barthes claims, this myth of the Woman-ideal in fact masks a truth. The historical, social and cultural contexts that allow for the differences between women are transformed by myth into an unchanging ideal. Garbo is concomitantly coded by a phallogocentric signifier that situates woman as essence, hence as patriarchy's oppositional Other. Feminist critiques of patriarchal systems of power and knowledge have exposed the function of binary thinking upon the constitution of the subject. Woman, it was revealed, was positioned as object in opposition to a male subject, thus accorded non-existence within the paradigm of binary thought (see Grosz 1987, Cixous 1980, Jay 1991). In Barthes' schema, Garbo is positioned in a predetermined regime of signs that negotiates difference within a binary dialectic.

By signifying the archetype Woman, Garbo's face concurrently affirms and *masks* difference. As Barthes' exemplar of the female form, Garbo denies the differences between women in a process of representing difference *as* sameness, while also being positioned vis-à-vis man as radical alterity, the representation of difference *as* difference. Camilla Griggers deploys the Deleuzian notion of faciality to locate the female face as the site of a coded system actively produced and fixed by the dominant phallogocentric regime.³ Griggers points out that faciality is not a process of identification but 'a question of technology, of a machinic operation of signs' (1997: 3), whereby the mechanical gaze of both cinema and the digital structures how the viewer sees and constructs a face within this mechanism of signification. And while it is beyond the framework of this thesis to consider the possibilities that Deleuzian theory might offer for a feminist analysis of representational practice, Griggers' argument complies with an established understanding of difference in the visual sphere as both affirmed and negated.

³ The term faciality, as it is used by Deleuze and Guattari in *A Thousand Plateaus*, signals a mechanism by which the concept of the unitary, or majoritarian subject (White Man) is constructed in terms of the opposing aspects of the face (Deleuze and Guattari 1988: 176). This face is described as an overcoding system constituted by the white wall of the signifier and black hole of subjectivity (Deleuze and Guattari 1988: 167). The dual aspects of the 'white wall/black hole system' operate according to organizations of power that fix the identity of the subject within a regime of binary relations, so that 'it is a man or a

According to Griggers, the face of white woman, embodied by the Hollywood screen icon, is contained by the mechanical gaze of the cinematic apparatus. The face of woman is made to function as a means of neutralizing, containing and policing 'minoritarian forms', otherwise described as all forms of Otherness that do not comply with a model of white, bourgeois, feminized and democratized identity (Griggers 1997: 5). Griggers thus accords a dual function to woman within the economy of signs at work within the Hollywood system. The threat or difference of white woman is accommodated by Hollywood cinema so the Other of race and class is subsumed by the white woman who comes to signify 'the consumable face of democratized and feminized bourgeois identity' (Griggers 1997: 17). Garbo, as the archetypal face of white woman, operates very much in line with Griggers' mode of thinking. In both instances, difference is acknowledged, but rendered meaningless and non-threatening by the representation of race, class, sexual and ethnic difference inherent in the category Woman, as the same.

Manson contests the fixity of Garbo's face as an absolute state of the flesh. His status as a digital image, and his plastic skin, suggest a reversibility and fluidity of form akin to the virtual morph generated in digital space. While it is impossible to witness Manson change over time on a CD cover, the potential for Manson to morph resides in his status as a digital image. Vivian Sobchack considers 'implied reversibility' a key feature of the morph, stating that '(w)hether or not one actually sees the reversal is irrelevant to the "lived" knowledge of its possibility' (1994: 44). It is according to these terms that I locate Manson within the genre of the digital morph.

Sobchack's edited collection on digital morphing, titled *Meta-Morphing: Visual Transformation and the Culture of Quick Change* (2000a), provides a contemporary point of engagement to pursue the question of difference in relation to figurations of the transformative. By situating the morph within a broader genealogy of mythology, magic, 'trick' films and attractions, Sobchack invites the reader to consider the digital morph's 'continuities and discontinuities with earlier forms and figures of "marvelous" transformation' (2000a, xv). Indeed, the strength of the essays in *Meta-Morphing* resides in their awareness of the historical formation of the transformative figuration before the advent of digital technologies. This echoes my own examination of the reshaping of perspective in Chapter Two, where I argued that the modernist subject of nineteenth-century lifestyle and technologies was a subject in flux, a protean precursor to postmodernism's fragmented figurations of identity.

woman, a rich person or a poor one, an adult or a child, a leader or a subject, "an x or a y." (Deleuze and Guattari 1988: 177).

In her own contribution to *Meta Morphing*, Sobchack turns her attention to the erasure of difference as a crucial marker of identity in contemporary instances of digital morphing. The essay titled ' "At the Still Point of the Turning World": Meta-Morphing and Meta-Stasis' (2000b) argues that the digital morph circulates within popular culture as a figure that is banal and familiar, but also a site of fascination and impossibility (2000b: 131-132). Sobchack in part celebrates the uncanny and paradoxical qualities of the morph, arguing that:

It calls to the part of us that escapes our perceived sense of our "selves" and partakes in the flux and ceaseless becoming of Being — that is, our bodies at the cellular level ceaselessly forming and reforming and not "ourselves" at all (Sobchack 2000b: 136).

Morphing taps into our own sense of being a subject in flux. Sobchack claims, however, that the material experience of space and time is rendered problematic by the digital morph's 'quick-change' qualities and powers of reversibility. Sobchack is particularly critical of the manner by which the morph functions to assimilate difference and Otherness into a figure of the same. Taking Michael Jackson's *Black or White* videoclip as one of her examples, Sobchack maintains that while Otherness is purportedly celebrated in the parade of multi-ethnic and racial faces, it is concurrently denied by the morphing of one face into another (2000b: 139). And while difference is conventionally understood in terms of binary hierarchies, whereby man is privileged over woman, black over white and self over Other, Sobchack suggests that the reversibility of the morph denies the power relations upon which difference relies, presenting the myth of equality and the democratization of difference. Moreover, according to Sobchack, reversibility denies the spatiality and temporality of lived existence in which difference operates (2000b: 141-142).

This homogenization of the heterogeneity of difference in the space of popular cultural consumption is also to be found in Benetton advertising. As explained by Henry Giroux, mass advertising adopts a legitimizing function in order to 'disguise the political nature of everyday life and appropriate the vulnerable new terrain of insurgent differences in the interests of a crass consumerism' (1994: 6). The threat of difference risks destabilizing the unity of white, Western masculinity, thus difference is diffused into sameness, and denied political efficacy. According to Giroux, Benetton negotiates difference via a 'strategy of containment', whereby the potential antagonisms of difference are marketed in such a way so that differences are dissolved into a depoliticized pluralism that invokes a myth of global harmony.

As a 'digital morph' or techno-mediated mutation, Manson could be interpreted within such a framework. Barthes' understanding of myth lends itself to a reading of Manson as an image that reinforces or naturalizes meaning through a repetitive process of endless signification. His form appears decontextualized; space and time fall away as Manson hovers against a nondescript grey backdrop that gives no indication of his spatial and temporal co-ordinates. His body denies any definitive markers of sexual difference. He shuns adornment or decoration. The body is not natural, not harmonious. Rather, like the preying mantis of Surrealist iconography, Manson's stick-like form repels the viewer, posing the threat of envelopment by his spindly limbs. The very same figuration simultaneously emits a seductive synthetic sheen from his rubbery Barbie-doll legs, eliciting an evocative and playful response to the body. Fact and fiction fuse when attempting to make sense of the image. And it is this ambivalence that complicates an analysis of difference in the posthuman figuration. Therefore, I argue for an understanding of the posthuman figuration beyond the limitations of binary difference. Beyond signification, difference is dispersed, annihilated and opened up, so that identity is not enforced but destroyed.

Traditionally, the potential threat of difference is contained within a mode of signification based upon a dualism of self/Other, whereby radical alterity is denied and negated. Sobchack's study of the digital morph, feminist interrogations of difference, and Giroux's critique of Benetton, all expose difference as functioning within a binary dialectic. Even though difference in each example is negated, it still operates via a model of dualistic structures of value. Each example serves to highlight the inability of difference to be conceptualized outside of the dominant regime of dialectical thinking, by stressing the manner in which difference is absorbed and contained in the dialectical model of the self/same. Accordingly, difference within a system predicated upon binary dualisms allays the threat of the Other, because this type of difference may be controlled and knowable. How might difference be otherwise negotiated at the site of representation, so to configure the posthuman, not as the denial of difference, but as a catastrophe and illusion that moves beyond signifying practice?

It is a difference that exceeds binary dualisms, which threatens how we know the world and make meaning. For a difference that resides beyond signification or systems of value is no longer positioned as Other to a primary term. Rather, difference is annihilated so that it cannot be understood as different to something. It is same. In the case of Manson, I argue that difference escapes containment and homogenization by exceeding signification. In addition to Manson's skin, his eyes indicate another site where the myth of the biotechnological may be negotiated.

Manson's face is slightly lowered, making his eyes appear demonic as they look up and out at the world. This is further reinforced by the dark make-up that covers his eyelids and the sockets under his eyes, sweeping upwards and outwards toward his temples. His red pupils glow from their dark frame, offset by his equally luminous flame-colored hair.

The illuminating red glow of Manson's stare is reminiscent of the penetrating gaze of the disembodied lens of science. With eyes like infra-red lasers, he mimics the all-seeing gaze of the visual technologies employed by science and the military. Science and medicine have been understood by Foucault in terms of biopower, in which their analytical, neutral and objective gaze fixes and regulates knowledges. For Foucault, visual control is a form of power deployed in the service of knowledge making practices (1977).

In the tradition of the monster, Manson challenges the scientific rationale of order, classification and naming. His burning stare 'sees through' an overarching biotechnological narrative of a new world order, refusing to comply with a seamless and controlled vision of a technological future. Donna Haraway has theorized the 'New World Order, Inc.' as an imaginary configuration, a way of understanding the global configuration of culture and capital precipitated by information technologies and technoscience (1997: 6-7). Haraway's use of the term functions along the lines of ideology-effects, whereby representations both construct and reflect a contemporary cultural landscape. In the instance of posthuman figurations, it is a world of biological, informational and digital technologies in which these representations are operative. As I established in Chapter Two and will discuss further in Chapter Six, I contest an interpretation of posthuman figurations in terms of semiotic meaning production and ideology effects. Posthuman figurations do not wholly operate as a reflection of who we are, or function to define what we are not. Rather, they reside beyond the fixity of signifying codes, in a space of simulation that calls into question conventional understandings of subjectivity, the body and reality.

Manson poses as the ominous and potentially dangerous mutant monster that threatens to transform the coding of technology as either threat or savior to humanity. Manson illustrates the fear and mistrust evoked by the controlling gaze of science 'tampering' with humanity, while turning the gaze back upon the institutional structures that strive to fix meaning, to name, know and order the world. He is both the watcher and the watched, confusing the boundaries that traditionally serve as a limit point between self and Other. The interconnections and interfaces of

the techno-human interaction belie simplistic distinctions, making it impossible to judge the effects of biotechnology as either good or bad.

Manson's infra-red eyes are no window to the soul. The viewer is not welcome to gaze into them. Confronting the viewer is a laser-like stare that mimics the scanning devices of military technology, or the spaces of consumption — the beep of the supermarket scanner. As perception is made technological, Manson evokes the machine as an aspect of the self (Turtle 1980). He confuses the distinction between bodily interiorities and machinic exteriorities so that the machine becomes an integral dimension to embodiment. Manson resists signification as an inert and 'safe' product of biotechnology by simultaneously occupying the position of the body threatened by the scientific gaze, and a body who exceeds the empiricism of the scientific paradigm. Manson signals more than the threat of the Other, or the postmodern subject in crisis.

Posthuman figurations demand another kind of engagement with difference, a negotiation that eludes binary opposition. The ambivalence of Manson's skin, his sexuality and his stare, play with difference in a way that goes beyond dialectics. Manson is both appealing and repulsive; seductive and threatening. It is this ambivalence that underpins figurations of the posthuman, a point of slippage that corrupts an understanding of representation as a mirror of reality. Manson shows us that in an order of simulation, the image can be neither. The image functions instead as a catastrophic site that challenges hierarchical and dualistic value systems through the excess of the simulacra.

Manson also exceeds the limits of signification that work upon a dialectic of self/Other, human/non-human by occupying the status of the animal/human hybrid. As the site of contamination between the technological, human and animal within the one form, Manson erases any connection with a real world referent. Like many other boundary creatures, Manson indicates the breakdown in the system of meaning, which programs the distinctions between animal and human, organism and machine. What differentiates my analysis of Manson's posthuman figuration from the various studies of the techno-human relationship, is a recognition of the impact of a representational economy of simulation upon experiences and understandings of the visual and the real. Posthuman figurations circulate as simulacra, as images without origins that encourage us to engage with posthuman figurations beyond the reality principle. While we know that Manson is not 'real', simulation makes it increasingly difficult to define what the real is.

Manson is neither like us nor unlike us, but is a site where subjectivity can be re-imagined beyond the spectre of humanism.

By refuting the unified and natural human body, Manson contests the phallogocentric ideal of a stable and coherent self, and its non-human Other. Manson's is not a productive difference, as found in the monstrous hybrids of feminism that disrupts the rational order. Rather, he is indicative of an increasing indifference prevalent throughout society and culture. Manson circulates as a bad copy of humanity's vision of the future, one which disallows a coherent differentiation of the real against representation, or the self against the Other. He is a falsity that does not mask a truth or the real; a product of the hyperreal which is 'falsely that false: illusion and appearance' (Baudrillard 1990b: 7).

There is no self and Other, no flesh and mask, no mirror. Like Manson, contemporary feminist performance artist Orlan deconstructs the face as the signifier of identity by undergoing plastic surgery to render her face a pastiche of the traits of famous female faces in art history. In Orlan's surgical performances, flesh is not a boundary that maintains the self, but a site for transformation. And like Manson, Orlan confuses the boundary between subject and object, observer and observed, by remaining conscious throughout the surgical procedure. She choreographs and 'hosts' her own performance-operations, speaking to a video broadcast while under the knife (Rose 1993: 85). Both the practices of Orlan and the face of Manson emerge from a culture of increasingly prolific technology in everyday life, and are thus constituted at the site where the material and the mechanical collapse. Not only does this call into question the status of the organic subject, but it also contests the inorganic Other.

Comparing Manson to Garbo indicates how difference, in the context of sign exchange, operates beyond dialectic thought. Difference exceeds social and signifying limits to become a matter of the degree of difference within a system. Approaching difference in this manner functions strategically to disrupt the traditional function of difference within structuralist signification to make meaning of the text in terms of hierarchical binary thought. Refiguring the concept of difference is crucial to a feminist politics of representation as it enables an understanding of how images function within a post-material, post-gender and posthuman landscape.

This focus upon difference and its function within a political economy of signification is also fundamental to understanding what is at stake for women in the age of the posthuman. As a

sexually indeterminate, technologically mediated entity, Manson destabilizes the Cartesian dualisms that underpin the liberal-humanist subject, as well as a notion of female identity predicated upon positive difference. Manson dismantles the overcoding of signification that structures a coherent identity. Through his plasticity of form, he is unable to be contained by the codes of the 0:1 dualism, exceeding the limits of the signifying system to exist in a posthuman space beyond signification.

Challenging the signifying codes that construct subjectivity, language and culture offers the possibility to think about difference in another way. The articulation of difference as an oppositional posturing between self and Other, reality and representation, is rethought. Beyond dialectics, difference functions as an ongoing process of mutation that acknowledges the experiences of different bodies to various technologies, re-writing how bodies are conceived, experienced and represented. Manson encourages new imaginings for feminist formations of the subject within a climate of information technologies by destabilizing difference. Ways of figuring the self are opened up that are better suited to the emerging bodily modalities of the digital age. This is not the utopian cyberpunk dream of transcending the flesh to enter the virtual; Manson is not a seamless signifier to be consumed as the myth of a techno-utopia. Instead, as a mutant form he causes a slippage in the formation of meaning. By disrupting the limits of the body, Manson exceeds signification, challenging established notions of identity and difference, and enabling new formulations of embodied existence that possess the potentiality of transformation.

Chapter Five

Media Implosion: Posthuman Bodies at the Interface

CDs again. I'm surrounded by them as I wander the aisles of JB Hi-Fi, a franchised music discounter, stocking everything from blank tapes to car stereos, all at 'cheap, cheap prices'. Walking to the counter, with CDs in hand, I pass popular music to my left, alternative to the right. To approach the register, I negotiate the ramp and the top forty singles. Behind the current darlings of the radio charts, and less conspicuously advertised, is the often-maligned genre of country music, hidden away like an embarrassing older-relative. Having reached the counter I wait, holding my purchases and staring blankly ahead. Stacks of CDRs — blank, recordable CDs — occupy my visual field. Each silver disc holding the potential for the infinite replication of the 0:1 code. But these CDs contain no information. Their emptiness is shared by the advertising poster stapled crudely to the wall above. It's an image of a baby, resplendent with dumbo-sized ears and square, computer-screen eyes. My aimless stare takes in the poster and CDs. Neither return my gaze. As I pay for my goods, I ask the shop assistant for the poster.

The 'mutant baby' is one image from the TDK advertising campaign featuring the slogan 'Evolve to TDK' (Fig.5). This blonde-haired, blue-eyed Aryan throwback beams gorgeously out of the image. In a warped twist on the nazi eugenics project, this mutation of the 'master race' fantasy has evolved freakish sensory appendages to accommodate the increasing auditory and visual stimuli of the information age. With eyes suited for the computer terminal and ears tuned to signals from the satellite dish, the acceleration of the species is depicted as an inevitable consequence of the heightened consumption of digital and electronic media. As both a product and viewer of the media circuit, the posthuman baby complicates the place of the subject in a culture typified by the acceleration of communication.

In light of communication technologies that call into question notions of the body and the subject, I advocate the interface as an alternative mode of subjectivity that better articulates a posthuman condition. In Chapter Four the excesses of Manson's posthuman skin functioned as a catastrophic site that allowed for an engagement with posthuman figurations beyond the limits of signifying practice. Building upon the implosive tendencies of a society saturated by information, this chapter deploys the interface to sustain an interrogation of the contemporary

www.tdk.com.au



Fig. 5.

landscape of images and media. I offer a re-appraisal of how feminist thinking might configure representations of the posthuman to challenge the limits of the body and subjectivity in the context of mass media and communications.

This chapter begins with an examination of the subject in the media as described by Baudrillard. I contend that Baudrillard's account of subjectivity disables conventional understandings of the subject as either active participant or passive receiver in the information network. Working against the tendency to interpret the communication act in such terms, I argue for a configuration of the subject as interface. By imagining the body as interface, I demonstrate how women may engage with images of the posthuman that are beyond identity politics. Envisioning the body as interface system offers a strategic 'way out' of thinking about the virtual and the real as oppositional terms, and therefore alters the notion of subjectivity as it is traditionally understood in relation to technology.

Taking account of the transformation of sensoria required to absorb the implosion of information networks, I consider the implications of such figurations for female subjectivity and the body. I continue an examination of feminist debates about the body in technology to contest a materialist difference feminist approach to the body as the limit of identity. This chapter explores what is at stake when women engage with images of the posthuman that are post-gender and post-material, inhabiting a space of ambiguity and uncertainty that challenges fundamental assumptions regarding nature and artifice, man and woman, organism and machine.

The final section of the chapter explores the possibilities of the interface through the posthuman figuration of the TDK baby and the performances of Australian artist Stelarc. These analyses tie in with Paul Virilio's writing on the technologization of perception, which interrogates the cultural shift toward speed and information precipitated by new technologies. As elucidated in the theories of Baudrillard and Virilio, traditional understandings of space, time, reality and materiality are fundamentally challenged by digital and media technologies. I propose a reading of the TDK baby that critically engages with the cultural, social and economic conditions in which technology is experienced and posthuman images are visualized. My analysis maintains the position that representations of the posthuman arise from an economy of simulation typified by contemporary visual culture and mass media. Baudrillard's writings on simulation enable new modes of cultural practice that are better suited to an understanding of subjectivity as an interface, within a climate of simulated communications, information technologies and digital media.

The chubby mite in the TDK poster is depicted in a portrait pose, naked from the chest up. Wisps of baby blonde hair frame a face that radiates an ecstatic smile. Stark and solitary against a white background, the viewer is left to wonder whether the baby is a boy or girl, or where the parents of this naked, vulnerable child might be. It is, however, apparent that the image has been digitally altered. The baby is a simulation. No child in the 'real' world could possibly be born with the square eyes and oversized ears of the TDK baby. Or could they? It appears as though defining the child's gender is of less concern than the question of whether 'it' is human at all. Perhaps there are no parents. Indeed, why would there need to be if evolution accelerates beyond biological reproduction toward technologically mediated techniques of cloning and replication? The place of the subject in the media forms one half of the narrative of the posthuman that I pursue here. The other, closely aligned with the issues of species evolution and the fate of humanity, is the question of speed.

Representing the fusion of technology and humanity, the TDK baby symbolizes a type of contemporary body that emerges from the negotiations between the human subject and information and media systems. This posthuman figuration raises the fundamental issue of technology's impact upon subject constitution within high-tech environments. Baudrillard attempts to make sense of the technological developments that affect both everyday experience, projections into an uncertain future, and an ensuing politic of representation. In the essay titled 'The Ecstasy of Communication' (1983), he speaks of a subject in a 'universe of communication' which sees 'our own body and the whole surrounding universe become a control screen' (1983: 127). Subjectivity in the context of electronic communications, as espoused by Baudrillard, contests a psychoanalytic subject model predicated upon the hierarchical mirror relationship between subject and object, which privileges the subject. Instead, in the contemporary flows of media and communication, Baudrillard claims that one no longer identifies or projects the self onto representations or objects. Rather,

In place of the reflexive transcendence of the mirror and scene, there is a nonreflecting surface, an immanent surface where operations unfold — the smooth operational surface of communication (Baudrillard 1983: 126-7).

Baudrillard's displacement of a psychoanalytic model of subject constitution proves immensely significant for forging alternative understandings of subjectivity in contemporary life. In a context where the real gives way to the hyperreal, Baudrillard seeks to put an end to dialectics, to

a value system by which identity is forged through differentiation from the Other. For Baudrillard, the alienation of the subject is surpassed by the ecstasy of communication of the object. This ecstasy results from the proliferation of meaning within a context of the hyperreal that liberates meaning from its object-referent. Instead of acting as the locus of knowledge and being, the subject is constituted within the circuit of signification and meaning as a 'nonreflecting...surface of communication' (Baudrillard 1983: 127). When the subject can no longer be differentiated from media and communication networks, the limits of the subject demand to be re-thought. It is at this point of collapse between the subject and the media that Baudrillard's theory of the subject in communications invites comparisons with the TDK advertising campaign.

In a circuit where dialogue exchange exists only between different media, reading the subject in Baudrillard's terms sees the televisual eyes of the posthuman acting as screens within an auto-referential circuit (Baudrillard 1988b: 8). Douglas Kellner has interpreted Baudrillard's theory of the self as a screen in terms of the sublimation of the subject by the proliferation of media technologies, arguing that Baudrillard denies the subject a dynamic relationship with its technological surrounds. He claims that:

for Baudrillard all the media of information and communication neutralize meaning, and involve the audience in a flat, one-dimensional media experience, which he defines in terms of a passive absorption of images or resistance to meaning, rather than an active processing or production of meaning (Kellner 1989: 70).

If we are to deploy Kellner's interpretation of Baudrillard's theory of the media, the TDK baby may be easily construed as the superfluous and disengaged subject of communication networks. The oversized ears of this newborn freak act as radars to pick up signals and passively bounce back a response in the service of communication technologies. Glazed over eyes staring blankly into space might suggest that the body as the core of identity is made redundant, as humanity becomes a passive screen for media messages. This explanation upholds a model of information as a one-way, linear transmission from an active sender (the abstracted construct 'media') to a passive receiver (the universalized human subject).

Paul Virilio has defined the negation of the subject within communication as a form of negative contamination. He believes that images contaminate the subject without communicating anything. Therefore, in a society of mass contamination, no feedback, engagement,

comprehension or dialogue between parties is necessary. As a result, the subject is violated by the images and information of a media culture that it cannot respond to (Virilio 1988: 5). A linear, one-way model of communication, theorized in terms of a sender (transmitter) and receiver dialectic underwrites the approach taken by both Kellner and Virilio. In this schema, audiences are configured as a passive undifferentiated group that is subject to the hegemonic effects of mass culture (Adorno and Horkheimer 1973). If we are to follow a model of communication that interprets media and culture as the primary determinants in the production of meaning, the only possible relationship for the subject with the products of these technologies is a violent one, where information flows uni-directionally across the passive human receiver. When the self becomes a signal and the body is disassociated from the locus of identity and being, the subject's experience of the technological is universalized as a negative one.

Although the myth of the unitary subject is debunked by the negative ecstasy of communication, the primacy of the subject risks being replaced by an equally problematic conception of technology as all-powerful. There is little doubt that Baudrillard denies agency and meaning to the subject within the digitized spectres of the hyperreal. This refusal of agency may be interpreted as a tactical manoeuvre to challenge the notion of the subject in the media as a passive receiver. Moreover, it dismisses the possibility of resistance, appropriation or response by the subject to media forms (Ang 1985; Fiske 1987; Hall 1995, 1996). Indeed, Baudrillard has noted on numerous occasions the impossibility of meaning and resistance in an economy of simulation where systems of value are abolished.

As I noted in Chapter Four, Baudrillard suggests that negativity functions as an implosive gesture that radically undermines dichotomous poles of value. Negativity in the context of techno-human relations may work in favor of the subject by refiguring the relationship between the subject and technology traditionally couched in terms of a positive or negative value judgement. Rather than interpret the body as a passive screen that abolishes the subject, Baudrillard contests the idea of a relation between the subject and technology. He proposes an experience of the media that does not function in accordance with a communication model of senders and receivers. By challenging an economy of dialectics that structures meaning production and sign value, Baudrillard displaces the Heideggerian vision of the subject as 'standing reserve' and the competing myth of the subject as transcending humanity through technology.

Adopting Marshall McLuhan's formula that the medium is the message (1964), Baudrillard makes the following proposition:

the medium is the message not only signifies the end of the message, but also the end of the medium. There are no more media in the literal sense of the word (I'm speaking particularly of electronic mass media) — that is, of a mediating power between one reality and another, between one state of the real and another. Neither in content, nor in form. Strictly, this is what implosion signifies. The absorption of one pole into another, the short-circuiting between poles of every differential system of meaning, the erasure of distinct terms and oppositions, including that of the medium and of the real — thus the impossibility of any mediation, of any dialectical intervention between the two or from one to the other (Baudrillard 1994: 82-3, italics in text).

According to Baudrillard's analysis, any relation between dualisms such as sender and receiver or media and audience, is rendered impossible by a simulation economy that abolishes a dialectical system of meaning. Terms cannot be defined against one another, rather they collapse into each other, or implode under the weight of an excess of meaning and information. What this implosion creates is a type of non-communication, making it impossible to analyze the act of communication in terms of active or passive participants. By doing away with the difference between information and its recipient, Baudrillard displaces a dualistic mode of thinking traditionally associated with the unified and undifferentiated subject of modernist thought. In Kellner's reading of Baudrillard, the subject is subsumed by information; a passive rather than active producer of meaning. His interpretation relies upon maintaining a relation between the medium and the real. Accordingly, the real and the medium are upheld as coherent categories. This is very different to Baudrillard's analysis of the media, which collapses the media into the real so that the subject *is* information.

Simulation here functions as a productive irony that simultaneously displaces the subject, while advancing a framework for theorizing the subject in technology beyond identity politics. By absorbing meaning, Baudrillard's implosive simulacra occasions alternative forms of subjectivity that reside beyond signification, rather than negating the subject entirely. In 'The Ecstasy of Communication', Baudrillard offers an escape from thinking about the subject and object as irreducible terms. When the subject is no longer projected into the image or object, something else occurs that opens up possibilities for thinking about subjects outside of self/Other dualisms:

No more fantasies of power, speed and appropriation linked to the object itself, but instead a tactic of potentialities linked to usage: mastery, control and command, an

optimization of the play of possibilities offered by the car as vector and vehicle, and no longer as object of psychological sanctuary (Baudrillard 1983: 127).

Scott Lash calls this collapse of dualisms a 'flattening' of ontological and epistemological formations based on binary dualisms, resulting in 'the radical monoism of technology' (Lash 2001: 108). In attempting to make sense of contemporary social engagements as they are negotiated through everyday technologies, Lash suggests that as forms of life are flattened, stretched-out and sped-up, they become '*lifted out*' (2001: 108, italics in text). He explains this in terms of an 'opening out' of traditionally closed systems, such as the individual and the social body. They become externalized systems that are open to the movement of communication and information between each other. Exposed to the world, these once closed systems now function as interfaces (Lash 2001: 108).

Most significantly for the subject, technology's monoism implies that the boundaries once alienating the self from the spectacle dissolve when the body as a site of power is absorbed by the matrices of technoculture. This is evidenced in the TDK infant as the distinctions between observed and observer collapse. The newborn looks at the world, its boxed eyes housing square pupils that stare out to somewhere beyond an engagement with the viewer; with the Other. In this act of 'looking beyond', the TDK baby avoids returning the spectator's gaze. Like Manson's infra-red stare, this refusal to connect is neither a form of active resistance, nor a gesture toward identification and engagement. Baudrillard claims that the truth constructed by the gaze of authority — the panoptic vision that locates, controls and creates the Other — is no longer applicable in an age of technological communication. We have passed over from a system of surveillance to a system of deterrence. The absolute gaze is abolished by the TV eye (Baudrillard 1994: 29). The gaze is not so much denied by the TDK baby, as made impossible when self becomes Other.

The TDK tot takes pleasure in the cacophony of media signals. Its eyes glisten and its wide smile suggests the 'pleasure of an excess of meaning' (Baudrillard 1994: 28). The potential pleasures of the information and entertainment technologies advertised by TDK are located at this fatal site, where the acceleration and proliferation of signs and information approach overload. Pleasure, anticipation and enjoyment of entertainment multimedia arise at the implosion of boundaries, rather than in response to the experience of communication. The infant appears to inhabit another set of social relations beyond the dichotomous systems of mirror and the gaze. S/he is on another wavelength; in an order of symbolic exchange that resides beyond signifying practice. This

posthuman figuration inhabits the space of simulation, where the tradition of perspectival space no longer determines how we make meaning. The mirror makes way for the model.

For Baudrillard, too much information results in an excess of meaning, a transparency that erodes the distinction between the real and the medium through which it is represented. The real becomes the medium, the spectator becomes the spectacle. The increased surface area of the infant's eyes, mouth and ears imply more than a prosthetic projection of the body. Oversized and misshapen, the eyes and ears of the TDK baby are 'lifted out', as Lash puts it, to become the flow of information. Spectacle is abolished so that ' "YOU are information, you are the social, you are the event" ' (Baudrillard 1994: 29). There is no more subject as the distinctions between the real and the medium dissolve. The broad smile of the TDK baby is spread across its face, its ears appear to have been pulled in opposite directions from the lobe and the tip. This stretching of sensory surfaces challenges the limits of the body as it is traditionally coded. Like Barbie and Manson, the posthuman figuration of the TDK baby disappears by exceeding the limits of the natural body.

How then, might posthuman figurations function for feminism in the context of digital culture? Does Baudrillard's theory reveal its limitations when confronted with the question of the body? In Baudrillard's analysis, technology connotes the loss of an active subject position intimately tied to corporeal experience. For a notion of womanhood grounded in corporeal, socially and culturally prescribed female experience, electronic communications that collapse the distinctions between subject and object, nature and technology, risk undermining the status of the lived body in subject constitution. Adopting a materialist position with regard to questions of the virtual techno-body, Anne Balsamo maintains that:

the material body remains a constant factor of the postmodern, post-human condition. It has certain undeniable material qualities that are, in turn, culturally determined and discursively managed; qualities that are tied to its physiology and to the cultural contexts within which it makes sense, such as its gender and race identities (Balsamo 1995: 220).

In the cacophony of electronic networks and signals that threaten to overwhelm the body and render it obsolete, Balsamo reclaims a place for corporeal experience. In arguing such a position, however, the body remains the limiting factor in identity formation. To extend the body via information systems implies a loss of the material, the bodily and the real, when defined by binary logic against the immaterial, the cultural (technological) and the virtual. As debates about

the relationship between women and technology in Chapter One attest, much materialist feminism has theorized the technological refashioning of the body as displacing the lived physicality of everyday existence and struggle for women. Returning to the material body when the corporeal is deemed a limitation to achieving technological transcendence serves as a political gesture to revalorize the feminine. Maintaining women's difference from electronic culture, however, risks replaying the binary dualisms coupling women to nature and the body, and excludes women from the digitally-driven circuits of communication and information.

In theorizing the limitations of a materialist approach to techno-human relations, Katherine Hayles suggests embodiment as a more suitable mode through which to approach the question of the body in technology. For Hayles, to talk of a posthuman body in the age of simulation is to recognize the body as a cultural, discursive and linguistic construct that is inscribed as information, while incorporating the embodied experiences of individuals that exceed fixed concepts of a unified body (1999: 193). Hayles argues:

In contrast to the body, embodiment is contextual, enmeshed within the specificities of place, time, physiology, and culture, which together compose enactment. Embodiment never coincides exactly with "the body", however that normalized concept is understood. Whereas the body is an idealized form that gestures toward a Platonic reality, embodiment is the specific instantiation generated from the noise of difference. Relative to the body, embodiment is other and elsewhere, at once excessive and deficient in its infinite variations, particularities and abnormalities (Hayles 1999: 196-7).

Much feminist debate regarding subjectivity and embodiment is intimately tied to an economy of sexual difference that re-valorizes the role of the body in forging women's sexual and social identity. Hayles works to de-emphasize the focus upon gendered experience as *the* key contribution to how embodied being is lived, enacted and negotiated. She quite rightly notes that to discuss an embodied existence is to recognize the situated, located, subjective and shifting axes of positionality each being occupies at any given moment. By challenging the boundaries that contain and locate the body, she problematizes the mind/body distinction upheld by cybernetics history and some literary discourse. Hayles exposes the inconsistencies of a cybernetic paradigm that destabilizes bodily boundaries in the very process of securing the autonomy of the phallogocentric subject.

I argue then, that Hayles' return to the body is not an essentialist attempt to situate identity within a fixed corporeal state. The project of revaluing embodied experience without recourse to the organic body is what Hayles advocates when she writes:

What embodiment secures is not the distinction between male and female or between humans who can think and machines which cannot. Rather, embodiment makes clear that thought is a much broader cognitive function depending for its specificities on the embodied form enacting it. This realization, with all its exfoliating implications, is so broad in its effects and so deep in its consequences that it is transforming the liberal subject, regarded as the model of the human since the Enlightenment, into the posthuman (Hayles 1999: prologue xiv).

In promoting a posthuman merging of the machinic and organic, Hayles is indebted to Donna Haraway's cyborg as a model of subjectivity that is situated, political and gendered, while avoiding the essentialism of origin myths. To be posthuman, by Hayles' account, is to shift the boundaries of what constitutes being and existence. The posthuman does not signal the end of the human race. Rather, an alternative articulation and perception of self needs to be forged in a digital world.

Moving beyond an ideal of female identity located in established definitions of the material and reality affords new possibilities for subject constitution in the techno-age. Virilio asserts that communication technology acts as a contaminant, corrupting the distinctions between the human and the informational (1988). Contamination is a useful conduit to configuring alternative relationships between the body and technology that moves beyond the coding of technology as either good or bad for women. Contamination, or the viral, as it has been theorized by Vicky Kirby in the context of postmodern feminisms (1994), suggests the potential for new fusions between, and combinations of, established codes. The hybridity that ensues from contaminated forms challenges the perception of technology as instigating a loss of subjectivity, identity and corporeality.

The TDK baby operates as one such hybrid form, occasioning a new relationship between the body and technology. Rather than legitimating the erasure of embodied experience through technology, posthuman figurations reformulate how the subject is constituted in and by its cultural surrounds. Resisting the tendency to interpret the body as erased or negated by technology, I argue instead that a new kind of subjectivity is created in the contamination of biological and information networks. Posthuman figurations such as the TDK baby exhibit a

protean bodily modality more suited to the interactions between material and informational systems. Fundamental to a re-thinking of subjectivity is acknowledging that the range and limits of what constitute humanness and the body are expanding and shifting in the context of digital technologies, challenging conventional interpretations of how the world is lived, experienced and perceived.

Different theories of identity formation have considered the body in various ways: as a product of psychoanalytic processes (Freud 1955a, Lacan 1977), a socio-biological entity (Dawkins 1976), or a cultural construction (Butler 1990). The posthuman moves beyond these theoretical modes of figuring corporeal identity, typifying the trend toward articulating the body as information networks. Posthuman figurations may be seen as imagining this shift from material bodies toward something that is beyond biological, essentialist or socially constructed ideas of what it means to be human. This new kind of corporeality, I argue, is brought about by technologies that position the subject as both spectator and spectacle. This collapse, what Baudrillard considers a crisis of the subject/object relation in the wake of technology, is succinctly reiterated by Lash:

Now the unconscious surfaces into the everyday; as the transcendental of the economy collapses into culture of everyday life; and as art becomes just another mode of communication. Technological forms of life suggest, not positivism, which is the subject-object type thinking of classification, but *empiricism*, in which the observer is in principle not fundamentally different from the observed (Lash 2001: 109 italics in text).

When the binary demarcations between subject and object, spectator and scene collapse, a new way of figuring the relationship of the subject to technology emerges. As a digital construct, the TDK baby exhibits the mutability and transformation of the body in technology. This is not to imply that the transformation of the human to the posthuman necessitates square eyes, or growing a larger pair of ears. For as a product of simulation culture, there is no referent for the image in the real. Rather, simulation transforms how we understand reality, representations and bodies, so that we see them not as fixed terms, but as contested sites.

The digital manipulation of the eyes of our posthuman progeny indicates of a new way of looking in the digital age, which complicates origins. Just as the visual apparatus of the TDK baby is reformulated, changing from round eye sockets to the square space of the screen, so too is our understanding of vision challenged in an age of simulation. By confusing that which looks (the eye), with that which is looked at (the screen) the TDK figuration indicates the potentialities of technology to generate multiple and varied imaginings of the body beyond established codes that

limit what a body might be. The face to face meeting of the body and technology is averted; the eye no longer faces the screen. Rather, they interface to create another kind of configuration of the body and technology that resides between representation and reality. What is represented on the screen becomes the experience of vision located in the eyes of a subject. The two cannot be differentiated. It is the collapse of the fluid subject of postmodernist thinking into an equally unstable and dispersed technological environment that transforms how bodies are lived and conceived.

The interface offers a strategy by which feminism may engage with posthuman figurations beyond the binarisms of a politics of identification. Figuring subjecthood in contemporary mass media as an interface serves to undermine a myth of origins predicated upon oppositional thinking, which positions subject and object, and technology and nature, as irrevocably and diametrically opposed. This, in turn, destabilizes a notion of the real that is grounded within a fixed locus of bodily identification, and the codes surrounding what a body might be within contemporary culture. As bodies interface with electronic media, the distinctions between subject and object, spectator and scene collapse. What ensues is a transformation, not a negation, of how meaning is made and understood. I ask for bodies to be re-visioned as part of a circuit of communications that productively collapse a dialectical economy, so that bodily experience is not denied, but conceived as a prosthetic interface.

The idea of the prosthesis is not new. As long as 'technology' and 'man' have existed, their troubled relationship has undergone scrutiny. Before Baudrillard assessed the impact of technology upon the human subject, Sigmund Freud remarked upon the changing status of humanity in an age of industrial and technical progress. In *Civilization and its Discontents* (1969), Freud observes the shift from the inhuman qualities of an all-seeing and all-knowing God, toward the human attainment of these God-like ideals through technological advances. As a result of technology, Freud claims '(m)an has, as it were, become a kind of prosthetic God. When he puts on all his auxiliary organs he is truly magnificent; but those organs have not grown on to him and they still give him much trouble at times' (Freud 1969: 28-9). Freud foresees the contentious relationship between man and technology. God is displaced as man's radical Other, in favor of humanity's potential to attain this God-like ideal. Moreover, when technology extends the limits of the organic body, Enlightenment humanism's vision of a self-constitutive and undifferentiated subject is rendered problematic.

Well after Freud postulated the technological prosthesis as both man's potential liberation and burden, Marshall McLuhan theorized the extension of the human through the operations of the media. As indicated throughout his writings, Baudrillard is heavily indebted to McLuhan's model of media theory. Most notably, Baudrillard maintains that it is the medium itself that manufactures what we know, rather than the message it carries. It is from McLuhan that Baudrillard derives his argument that form, rather than content, holds significance for an understanding of media. This idea is more commonly understood by McLuhan's catchphrase, 'the medium is the message'; a term explained by McLuhan in the following manner:

This is merely to say that the personal and social consequences of any medium — that is, of any extension of ourselves — result from the new scale that is introduced into our affairs by each extension of ourselves, by any new technology (McLuhan 1964: 15).

How the medium affects human relations is what concerns McLuhan. The medium transforms human relations, he says, because 'it is the medium that shapes and controls the scale and form of human association and action' (McLuhan 1964: 16). McLuhan's vision of electronic communications as extending the range of the body is optimistic. Within his schema, communication networks function to augment prosthetically and extend the limitations of the 'natural body'. Although McLuhan claims that the media is an extension of bodily senses, he nonetheless maintains the distinction between human and non-human components (McLuhan 1964: 30).

Baudrillard, on the other hand, differs from his predecessor by collapsing, rather than upholding, the distinction between self and Other. Instead of technology forming an extension of man, Baudrillard inverts McLuhan's model by positioning the human within an integrated circuit of unmediated and direct sensory flow. This contravenes a theory of techno-human relations that upholds subjectivity as a discrete component of the integrated circuit of information. In the age of digital technology, the prosthesis takes on new meaning as bodies are represented and theorized as seamlessly wedded with technology. For Baudrillard, there is no longer any relational difference between the subject and information.

In this environment where the distinction between subject and object, viewer and spectacle collapses, Baudrillard perceives the subject as ill-equipped to protect itself from the relentless influx of media (1983: 132). This does not necessarily suggest that Baudrillard is vehemently opposed to technology on the grounds that it threatens the integrity of the human subject. On this

point I argue to the contrary — Baudrillard is more akin to a celebrant of technology for the reason that the techno-human engagement precipitates the death of humanism. Within an economy of simulation, a stable state of subjecthood cannot claim a privileged position when the hierarchy of binary thought implodes.

The TDK baby encourages a reconsideration of McLuhan's formulation of the body/prosthesis relationship, a formulation that interprets the technological as the extension of a unified, corporeal subject. Rather, the interaction of the natural with the machine results in something beyond a mere prosthetic extension of an undifferentiated, organic notion of the self. In coupling the organic and technological, the body may be re-interpreted as a boundary site — neither entirely natural nor cultural but a configuration that negotiates the limits of corporeal existence within an increasingly technological environment. I argue for the interface as another kind of prosthesis that is not so much a material extension or external projection from a 'natural' body, but a flow of information between biological, digital and media systems.

Running along the bottom of the poster in small print is TDK's prominent advertising slogan 'TDK does amazing things to my system'. Its resonance with the current media generation forges an association between this well-known phrase and the campaign described here. 'What exactly does TDK do?' you might ask. 'And to what system?' The viewer is invited to consider such statements in light of the primary motto of the advertisement, 'Evolve to TDK', which is printed in large letters in the lower third of the poster.

In the instance of this particular TDK advertisement, the posthuman is articulated as both product and consumer of the visual image in the context of digital manipulation and communication. In an era of mass-marketing hype, potential customers are encouraged to consume the image of the baby, and in turn, TDK products. While the baby is the image we consume, the infant is also advertised as a consumer of TDK's product line of blank video tapes, audio cassettes and CDRs. 'Evolve to TDK' employs the commonplace strategy of disassociation between an advertisement and a material product. Nowhere in the image of the TDK baby are we presented with TDK's product range. Instead, the image enacts the heightened sensory awareness TDK products offer the consumer, evidenced by the TDK baby's oversized ears and square TV eyes. No longer are we asked to associate with a product, but rather with the brand image TDK wishes to create (Klein 2000: 21).

In this play of words and images, the distinction between organic bodily systems and mechanical communications systems are rendered increasingly problematic. In the act of consumption of TDK products, the body becomes the stereo, rather than the bodily system and the technological system existing as discrete entities. The consumption of TDK products precipitates this evolution. No longer will an individual need a stereo when the individual becomes a stereo. Eyes replace the TV screen and ears become speakers. The infant's thin mouth stretches across its face, providing the ideal size and shape for the insertion of a CD. The body is made to accommodate the consumption of TDK products. In this regard, the TDK baby evokes the confluence of media, or multimedia, whereby categorical distinctions between cultural forms collapse. The TDK baby is the body *as* stereo.

The development of an amplified sensory system by the posthuman TDK baby suggests this new kind of engagement with the external environment, where the distinction between the subject and technology is abolished. His/her auditory and visual pathways are depicted as amplified and larger than life, offering an increased surface area to interface with its surrounds. In this instance, the prosthetic extension of the body does not indicate a lack, but results from an excess, or proliferation of information in the contemporary age. The relationship between the subject and the technology it uses is bypassed for an exchange between different media. In terms of the entertainment technologies TDK advertises, information flows from component to component of the TDK system — from the televisual, to the stereophonic to the interactive. Scott Lash observes that engaging with, socializing in, and making sense of the world around us depends upon interfacing with technological systems, so that 'we operate, less like cyborgs than interfaces' (Lash 2001: 107).

Re-reading the body/prosthesis relationship as an interface suggests a two-way exchange, whereby technological systems may extend the human body and mind, as well as implying that biological systems are extensions of electronic networks (Taylor 1997: 143). The body functions less like an organic system rendered obsolete by technology, and more like an interface with technological systems that allows for flows and exchanges of information *between* systems. In a two-way circuit where data-streams flow across the screen interface, the eyes of this posthuman progeny suggest s/he is both observer of digital culture and that which is observed. The subject becomes part of the technology as a sign-switcher that confuses the distinction between the medium and the message by existing as information.

By configuring the body as interface, TDK's advertising constructs a radically altered relationship between advertising, media and consumers. By situating the posthuman entity in a circuit of communication precipitated by information technologies, TDK asks us to consider the role of the consumer in the sphere of advertising, communication and meaning formation. Positioning the posthuman as both subject and object of communication is achieved by collapsing the distinction between the subject and the technology it uses. Imploding the point of distinction between the consumer, the TDK products consumed, and the circuits through which information is relayed from one to another, enables new ways of thinking about our bodies and our relationship to media environments.

The TDK baby is a commodified body. Its political efficacy is compromised by its association with the advertising industry. The innocence and appeal of this gorgeous child captivate the viewer, perpetuating the romanticized notion of a global media and communication network that connects people across the world in a harmonious gesture of cross-cultural exchange. In Chapter Four, we saw how an interpretation of the image as masking a reality is made problematic by an economy of simulation. To suggest that the TDK baby depoliticizes, or masks the power structures underlying global media, is to imply that there is a truth to be revealed, which resides behind the image. Instead, the posthuman figuration reveals nothing. There is no absolute reality regarding the media or the exchange of information.

The TDK baby does not maintain a discrete differentiation between organic and mechanical systems, but its wide-eyed engagement with the world suggests that this posthuman functions as a system that is open to information and communication flows. Its senses extend outward to interface with the environment (Lash 2001: 108; Stelarc 1998: 117). This destabilization or slippage between discrete categories functions strategically for a feminist engagement with posthuman figurations by enabling alternative ways of understanding subjectivity beyond the rhetoric of identity and difference. As the limits of the body are refigured, the modes by which women conceptualize the body and identity also undergo transformation. The body as interface disturbs established notions of what constitutes the material body, undermining the fixity of meaning attributed to an embodied identity.

The confusion between systems is, however, not a new concept within feminist discourses of the body and technology. Katherine Hayles, for example, contests the demarcation between information and materiality. Rather than positing the organic and the technological as discrete

and incompatible entities, Hayles suggests that the posthuman promotes a two-way, reversible exchange between disembodied information and material embodiment. She makes the point that 'in the posthuman, there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals' (Hayles 1999: 3). Contemporary technology's relationship with the body is envisioned as something more than an adjunct or augmentation of an intrinsically natural or original humanity. Moreover, as the organism becomes an interactive extension of communications networks, it exceeds the boundaries of the natural, disrupting the humanist longing for an organic unity.

In an age that Allucquere Roseanne Stone has termed technosociality (1992b: 610), subjectivity is no longer understood as aligned with the natural or organic, thus assuming an incompatibility with the machine or non-natural. Instead, Stone argues that we situate ourselves within the context of contemporary technologies, which blur the boundaries between self and technology. For the purposes of this feminist project, such techno-human engagements function strategically to displace conventional identifications and meanings figured in terms of the binarization of nature/technology, self/Other and human/non-human. Moreover, the importance of Stone's study for a theory of the interface resides in her consideration of how social interactions brought about by technology, such as cyberspace, may function as transformative. This concurs with an understanding of the posthuman as a figuration that calls into question the distinction between reality and the virtual. The TDK baby implies such subjective formulations by interfacing between information networks and the body. What manifests in place of traditional notions of the natural subject, is a radically altered conception of the self as mutable and able to flow between networks, affiliates and matrices of knowledge.

The prosthetic element of electronic media is central to Stone's analysis of the subject in technology. For it is the point of engagement between technology and human that destabilizes established the notions of self as locatable in a fixed body. Stone's analysis supports my argument that the economy of the body requires re-organization to take into account new modalities of being in the techno-age. Her example resonates with my insistence that the body is not lost, but experienced differently through technology. Amid the digital communications that for many constitute cyberspace, such as e-banking, email and virtual chatrooms, Stone acknowledges the continuum between modernity's radical refiguring of space and contemporary cyberspace, claiming the prior existence of the 'proto-cyberspace' of the diorama, botanical

garden and carnival ride (Stone 1992b: 610). These spaces created a new sense of being in the world, just as virtual systems now enable the formation of new kinds of communities, in a space that provides a form of social interaction. Within this framework of a deconstructed subject, nature as a unified entity is actively re-articulated to produce new formations and modalities that defy the fixity, immutability and process of Othering upon which desire and consumption depend.

Australian-based performance artist Stelarc envisions the kinds of formations of the body and the self made possible by the techno-human interface.¹ Stelarc's fascination with challenging the physical parameters of the body and interrogating the limits of its capabilities was evidenced in his early body suspension performances of the seventies. But it is in later performances that Stelarc explores the ideas of bodily extension and enhancement in the context of electronic culture and digital communications networks. Rather than enacting the erasure, or disappearance of the body into technology and media systems, Stelarc's performances suggest that a new kind of corporeality is created in the engagement of biological and information systems.

In the performance *Handwriting* (1982), Stelarc introduced the world to the now infamous third hand. First conceived as a mechanical structure with limited capabilities that could be attached to his already existing arms, it has 'evolved' to become an integral part of Stelarc's performances. Standing behind a pane of glass, Stelarc holds a pen in each of his three hands (Fig.6). Although attached to his right arm, the third hand works independently to the other hands, with each writing different letters to make up the word EVOLUTION. The third hand is activated by pulse signals that travel from Stelarc's abdominal and leg muscles via electronic wires into the mechanical hand. It becomes part of Stelarc's body circuitry, albeit through external, artificial, neuronal networks that pass from his lower body musculature to power the third hand. As information travels from the neuronal pulses of the biological body into the artificial hand, not only does the third hand become part of the neurological circuitry of the body, but the status of the body as an organic and natural entity is scrambled. Such posthuman configurations suggest a protean bodily modality more suited to the interactions between material and informational systems.

Stelarc speaks of the third hand in the *Handwriting* performance as an addition to, rather than an extension of the body (Stelarc 2002). And while *Handwriting* is typical of his challenge to fixed notions of bodily identity, later works see Stelarc complicate further the relation between the

¹ Stelarc's performances, including those discussed here, can be viewed on his website at <http://www.stelarc.va.com.au/>



Fig.6.

body and technology. Appendages such as the third hand function less like additions to an inert and unified organic body, and more like insertions that collapse the boundaries between where the self ends and technology begins.

Ping Body, first performed in 1996 in Sydney, and subsequently performed in various locations round the world, sees Stelarc wired up to the internet. Stelarc stands naked, his body encased in circuitry (Fig.7). This external nervous system functions in a feedback loop with his biological mechanisms. Internet noise, pulsing through the wires connecting the internet to Stelarc, induce involuntary movements through the body. Body and performance are activated from outside the individual body. By locating the stimulus for involuntary movement outside the body, Stelarc inverts conventional interpretations of the relationship between the subject and the internet. As Stelarc elucidates:

Instead of collective bodies determining the operation of the Internet, collective Internet activity moves the body. The Internet becomes not merely a mode of information transmission but also a transducer, effecting physical action (Stelarc: 2002).

As the body moves in response to the ebb and flow of data, these involuntary movements of the body subsequently activate Stelarc's third hand. A feedback loop is created that extends the limits of the body. Stelarc's posthuman re-configures the body as part of a circuit of communications that productively collapses dualistic thinking, so that bodily experience is not denied, but prosthetically extended outwards to interface with the environment and directed internally to invade the body. The physical parameters of corporeality are extended through the interplay between the human body and the flows of the data stream. The performance encourages a reappraisal of the body/technology relationship, highlighting that the range and limits of what constitute humanness and the body are expanding and shifting in the context of digital technologies. Stelarc challenges traditional understandings of how the world is lived, experienced and perceived, in terms of the body and identity. By figuring subjecthood in contemporary mass media as an interface, Stelarc's posthuman figurations serve to undermine oppositional thinking that positions subject and object, technology and nature as irrevocably and diametrically opposed.

While *Ping Body* enacts a body encased by techno-networks, Stelarc does not mean to imply that the corporeal is enveloped or erased by media systems. Rather, he envisions the body as a phantom: 'phantom not as in phantasmagorical, but rather phantom as in phantom limb sensation

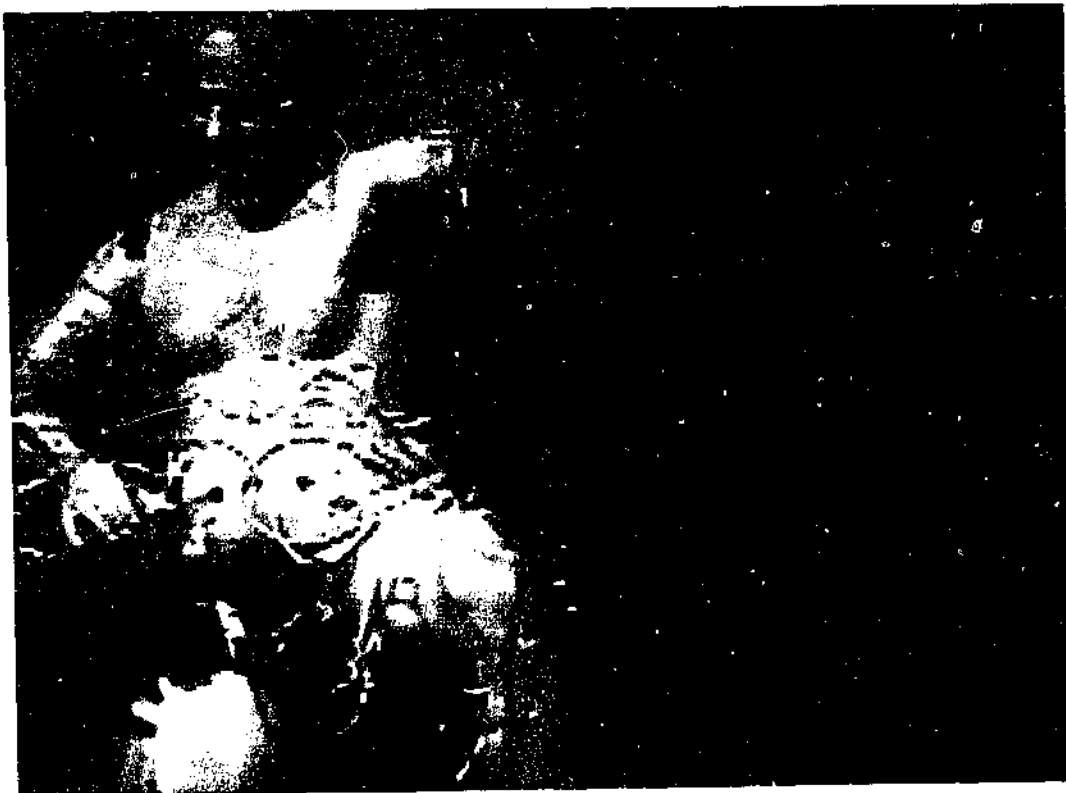


Fig. 7.

— a kind of visual visceral sensation that is still coupled to a physical body' (Stelarc interviewed in Farnell 1999: 133). In Stelarc's terms the techno-human engagement no longer signals an obsolete body, but an absent body, 'DESIGNED TO INTERFACE WITH ITS ENVIRONMENT' (Stelarc 1998: 117). In rupturing the once incompatible spheres of nature and technology, Stelarc exceeds his understanding of the body as an interface or phantom model. The fusion of the technological environment with the organic body is deployed to theorize the splitting of the species (1998: 118).

For as an individual's bodily capabilities are extended by technology, evolution no longer stands to benefit the species, but the self. According to Stelarc, 'EVOLUTION ENDS WHEN TECHNOLOGY INVADES THE BODY' (1998: 118). Likewise, when the TDK text implores us to 'Evolve to TDK', its hybrid, digital, simulation of technology and nature threatens the sanctity of a human species defined by the act of natural reproduction. The process of evolution, as it is popularly understood, depends upon a random genetic mutation of chromosomes, resulting in the birth of an individual displaying unique characteristics. In the case of the TDK baby, its uncanny semblance to technological systems promises an increased chance of survival in the technological age. This posthuman adaptation, however, defies a theory of evolution as proposed by Darwin.

It is no evolutionary accident or random mutation that caused the amplification of the TDK baby's viewing and hearing apparatus. The TDK newborn is the renegade product of a new model of evolution; a way of being that is without origins, a simulated construct emerging at the confluence of biology, technology and consumption. As subject and object collapse into each other, as biological and technological systems merge and fuse, what manifests is a mutant hybrid of technology and media networks. The baby as a privileged symbol of origins is refuted by the TDK image. Our mutant baby has no parents. As a simulated product of hyperreality, it cannot reside in the real world. When technology becomes a component of the body, the configuration of humanness is under attack. In such a situation a paradox arises in which technological culture threatens to end human evolution in the Darwinian sense, as evolution is simultaneously accelerated beyond the species. The necessity for this evolutionary turn emerges from the increased speed of information and communications in contemporary life.

By 'Evolving to TDK' the TDK baby presents the viewer with a potential re-figuring of bodily limits as they are extended and transformed to accommodate the acceleration and heightened consumption of communications and media in the information age. Paul Virilio's 1994

monograph *The Vision Machine* considers the question of speed in terms of a crisis in perception that threatens how humanity understands the world it inhabits. According to Virilio, the velocity of light emerges as a 'third interval' alongside time and space. Moreover, speed has come to supersede both the spatial and temporal interval as the definitive mode of perception. Speed triumphs over space and time as the mode by which the world is understood in the context of electronic communications. For Virilio, speed is a way of configuring the relation between objects. His understanding of speed and technology differs significantly from Baudrillard's approach, in which there can be no relation between subject and object in the media implosion.

Despite their differing approaches, both theorists chart the collapse in distinctions between the subject and the object, the image and its reality, in a world of accelerated communication. One way in which Virilio articulates this collapse of forms is in terms of 'the instantaneous interface between the here and now, in the television set or vision monitor' (Virilio 1988: 4). When the interval between values operates *at the speed of light*, it permits, for the first time, the direct mediation of technological and organic systems at the site of the screen interface. In emulating the television set or computer screen, the square eyes of the TDK tot exemplify the third interval, or prosthetic interface, which destabilizes a reality principle based upon a binaristic conceptualization of the subject/object relationship.

The TDK baby locates a shift in how technological change is represented. Traditional conceptions of space and time have been replaced by a concern with speed and information. As the real and the representational come to be replaced by the actual and the virtual (Virilio 1994: 70), the TDK posthuman signals the impossibility of representing the utopian fantasies of what we may become. The future, like the posthuman, is a point at which we never arrive. Technological change is an imagining that cannot be fixed within binary systems of meaning. The acceleration of communications and proliferation of media forms are represented as a collusion of systems operating at different speeds and in different dimensions, at the site of the interface. The posthuman, as it is enacted by TDK, suggests this shift to a third frame of perception, allowing the body to interface with technology at the point of collapse between the organic and the technological.

Charting the history of science fiction (SF) films produced in post-1950s America, Vivian Sobchack pinpoints a shift in how contemporary culture experiences and perceives temporality and spatiality. As Sobchack asserts, science fiction film is intimately bound to questions of

logy, the future, and the alien Other. She encourages a mode of reading images that takes account the impact of technological artifacts upon 'both our lived experience and our cultural representations' (Sobchack 1987: 223). In arguing for an altered sense of how we see the world through narratives and the lived experience of technology, Sobchack's study of science fiction also lends credence to the argument that the digital requires a 'new' mode of viewing. She

as a symbolic medium whose function is representation, the American cinema has also increasingly articulated the new "sense" and "sensitivity" generated by this technology and its spatial and temporal transformation of contemporary experience. As might be expected, this articulation is nowhere more evident or given more emphasis than in the SF film — for SF has always taken as its distinctive generic task the cognitive mapping and poetic figuration of social relations as they are constituted and changed by new technological modes of "being-in-the-world" (Sobchack 1987: 224-5).

Sobchack provides a timely summation of both the specific role of science fiction as a genre in a popular cultural format, and the importance of figuring technology within a 'lived' context informed by cultural, social, political and economic conditions that make technologies possible. Particularly crucial to the issues of posthuman representation are the questions of digital representation, which Sobchack figures as contributing to the radical shift in how time and space are experienced by the viewer. In characterizing the shift brought about by technology, Sobchack echoes Baudrillard in stating:

The popularization and pervasiveness of electronic technology in the last decade has reformulated the experience of space and time as expansive and inclusive. It has recast human being into a myriad of visible and active simulacra, and has generated a semantic equivalency among various formulations and representations of space, time, and being (Sobchack 1987: 229).

Sobchack, like Virilio and like Baudrillard, is aware of the collapse of forms within an increasingly technological society, and its impact upon understandings of representation. When digital erases the distinctions between subject and object, observer and observed, representation no longer functions in terms of a practice of signification that upholds the relation between representation and reality. As the nature of time is altered, traditional understandings of the virtual and the real are experienced in new ways. In Virilio's schema, 'real time' consists in part

of both the present and immediate future (Virilio 1994: 66).² For the subject to respond and interact in 'real time', the parameters of the body require reformulation.

Yet the speeds at which technologies of perception operate exist alongside a cultural anxiety concerning the 'free will' and 'usefulness' of the subject. In an interview published in *Block Magazine* in 1988, Virilio predicts the displacement of the subject by the speed of contemporary technology. He suggests that the response mechanisms of the human organism cannot 'keep up' with the acceleration of society. Technologies of speed obliterate humanity's ability to respond to the increasing demands and influx of communication (Virilio 1988: 5). For Virilio, the intensive acceleration of electronic communications limits humanity's response properties, so that we can no longer sustain a sufficient 'real-time' dialogue with the information relayed by electronic media. Ultimately, Virilio considers the transition to speed, networks and information as a violation of the subject, stating that in the context of media and information systems 'we get replaced, and we are replaceable' (1988: 6).

Baudrillard and Virilio signal the end of the subject as understood in terms of psychoanalysis, socio-biology or cultural construction. For these theories of subjectivity cannot be accommodated by a digital world where media systems accelerate beyond human response times. Yet, rather than being 'left out' and undermined by technology, the TDK baby indicates the bodily modalities open to the subject, conceptualizing the self in the world as interface. The acceleration of communication and media technologies does not erase subjectivity per se, but subjectivity is reconfigured. TDK's posthuman imagines a formulation of selfhood that moves beyond a politics of identity determined by binarized difference. As a digital simulation without gender and beyond the human, the posthuman emphasizes the necessity for a transformation of subjectivity. Transformation allows us to make sense of the place of the subject within the networks and circuits of contemporary communications. Subjectivity is no longer situated within a fixed idea of the body and identity, but emerges as the ability to engage variously and often simultaneously in multiple contexts.

The TDK infant expertly negotiates the cacophony of signals comprising a culture of accelerated and instantaneous information and feedback. While this may suggest that the sensory responses required of the audience are heightened in an age of multimedia, the collapse of distinctions

² According to Virilio, the concepts of 'real time' and 'delayed time' have replaced the three traditional tenses of past, present and future once used to connote decisive action. See Paul Virilio. (1994). *The Vision*

between sensory experience into the 0:1 of the information code risks reducing bodily experience to a homogeneous relay of information. Virilio asserts that information has superseded sensation as the primary mode of experiencing the world. This results from the compression of temporality and spatiality by light-speed into packets of information (1991: 46). In particular Virilio contends that vision, as a sensation, is distorted by speed, which 'perverts the illusory order of normal perception, the order of arrival of information' (1991: 100). Mark Poster too has observed that information, as the basis of electronic media, has become a privileged term in contemporary culture (1990: 7). Processes of communication and ways of understanding the world change from temporal and spatial narratives and discourses, to non-linear, accelerated and compressed bundles of information (Lash 2001: 110). For Baudrillard, information is no longer about making meaning or communicating anything. As indicated by the previous chapter's examination of the concepts of inertia and implosion, an increase of meaning, such as the proliferation of information, is always coupled with a loss. Baudrillard argues that the more meaning that appears to be circulating within the information network, the less meaning there actually is, as the relation between images and their referents collapse.

An alternative means of considering information is not as a loss of meaning or materiality, but as the emergence of a different way of making meaning. Speed and information, rather than encouraging the invisibility of the subject and the denial of meaning, may be interpreted as flowing through the 'informational pathways connecting the organic body to its prosthetic extensions' (Hayles 1999: 2). In the information exchange between biological and technological systems, the 0:1 structural code of information is scrambled. As evidenced in the hybrid formation of the TDK baby, difference cannot be reduced to a 0:1 binary code. Rather, the inability to locate the markers of binary difference at the site of the body suggests a mutation of form that extends beyond traditional conceptions of bodies, gender and subjectivity. Emerging instead is a proliferation of recombinant and hybrid states of being, instigated by the collapse of differentials between the subject and the media.

The unsettling nature of the TDK image impelled me to ask for the poster in the music store. And, it is the ambivalence experienced upon engaging with the TDK figuration that encourages a reconsideration of the traditional view of advertising as a site of identification or desire. The role of advertisements in establishing a relationship between the viewer and the image is conventionally understood as follows: 'advertising images are central to the construction of

cultural ideas about lifestyle, self-image, self-improvement, and glamor. Advertising often presents an image of things to be desired, people to be envied, and life as it "should be" (Sturken and Cartwright 2001: 189). To an extent, TDK employs the seduction of technology, creating desire for a technologically mediated lifestyle and the possibility of becoming something else through technology. Yet the seductive aspects of technology sit alongside a long-standing notion of technology as a dehumanizing force (Heidegger 1977). A degree of ambivalence thus accompanies the types of possible responses to the TDK advertisement.

This uncertainty surrounding what the advertisement might mean is in keeping with contemporary understandings of image culture. As one of the many forms of image production in a world overrun by visual signals, advertising can no longer be considered as creating a definitive meaning or message for the consumer. On the contrary, a study of TDK's advertising indicates that meaning is free floating and diffuse, it cannot be traced to an 'original' reference point in reality. In much the same manner, technologies problematize a notion of origins by eroding the distinctions between human and machine, transforming the ways we enact our bodies and human existence. This is evidenced in areas as diverse as artificial intelligence, virtual reality and biotechnology. TDK does not pretend to envision an idealized life as it 'should be'. It offers us a fantasy, but part of the pleasure and appeal of the advertisement lies in the representation of a technology deemed threatening to human existence. It is this ambivalence in posthuman figurations that I go on to explore in the final chapter of the thesis, by focusing on popular media images of the posthuman and the discourses of biotechnology.

Chapter Six

Cloning Matter and Compromised Visions

In 1997, Australian visual artist Patricia Piccinini created the photography and video series *Protein Lattice*, introducing a mutant rodent forged from an amalgam of a human ear and laboratory mouse. Her inspiration for the project derived from photographs of a then recent biotechnological experiment, published in *Time* and *Arena* magazines. Speaking of this incident, Piccinini states:

For a moment in late 1995 an image appeared in the world media that has stayed in my mind and in the minds of a huge number of other people who saw it. Perhaps it does not float on the surface, but if questioned most of the people I know would be able to recall the mouse with the human ear on its back. For a media second we saw the future and it was a sorry little rodent weighed down by an ear vastly out of scale with its emaciated body (Piccinini 1997).

In Piccinini's version, the viewer is presented with a red-eyed, pink and hairless digital image of a rat with a human ear attached to its back. One image from the series is particularly arresting (Fig.8). The rodent rests atop the manicured fingers of an exotic female model. Her sultry features are digitally enhanced — the face of her skin airbrushed into a seamless plastic mask. The model is made freakish in her absolute perfection. Artifice is revealed by facial features that are too large, too sculpted, too glossy and glowing, to pass as natural. The rat too, is a construct. Once-separate biological systems of rodent and human are rendered as effortlessly fused. No markers of differentiation such as skin grafts mar the surface topography of the rat.

Indeed, many of the issues raised throughout *Transformations* are explored in the *Protein Lattice* series: the blurring of boundaries between real and illusory, self and Other, organic and machinic. Rather than maintaining what were once distinct categories of rat and human, Piccinini's rodent appears to seamlessly articulate a fusion of self and Other. The interconnected biological systems of the human and animal species are made possible by both the tools of technoscience and the malleable qualities of digital image making.

Building upon my position that posthuman figurations manifest from, and exist within a culture of simulation, this final chapter draws together the role of such figurations as they occur in



Fig 8.

biotechnological narratives. I contend that engagements with popular media images of the posthuman, in the context of gene debates, rest upon a paradox. Science and technology strive to recreate foundation myths of the natural and originary, while the representation of biotechnological discourse in the popular cultural arena actively undermines the notion of origins by existing in a culture of simulation. It is from this slippage in the practice of signification that posthuman figurations open up conditions of possibility for new narratives of subjectivity to emerge.

The chapter begins with an interrogation of the natural through the writing of Donna Haraway. Her arguments are located within a broader feminist project that critiques the masculinist assumptions that underpin science studies. An analysis of *Protein Lattice* considers the collapse of the natural as articulated within feminist critiques of science, in conjunction with Baudrillard's writings on the code and the clone. These themes are further developed with attention to the miniaturization of the body in gene discourse, via a reading of the Human Genome Project website. I locate this shift in bodily understanding at the point where Baudrillard claims that history ceases to exist.

In an age of biotechnologies, society is awash with multiple and competing narratives that simultaneously reproduce and undermine the authority of scientific dogma. It is at the level of representation that I wish to engage this problem. The representation of technoscience, particularly in relation to posthuman technologies such as biotechnology, genetic engineering and cloning, has figured largely in feminist writings on science. Much of this debate has focused upon the question of difference and the role of representation in legitimating and perpetuating social inequality. Vandana Shiva and Ingunn Moser articulate this trend toward revisionist narratives in feminist projects, aiming to recast modern biotechnological narratives within a history of 'people being controlled or removed, natures and ecologies exploited, and cultures degraded and reduced to nature' (1995: 9).

Within a biologically determinist narrative, genes are classified as essential and natural markers of identity. I summarize feminist critiques that have eloquently exposed a genome rhetoric that maintains the foundation myths of the natural and originary. For it is the products of biotechnological discourse, as they are represented and articulated in popular media, which concurrently re-enforce and undermine the legitimacy of science. Although I recognize the value of a constructivist approach to revealing the power-effects intrinsic to the discourses of science

and technology, I seek out an alternative space through simulation to expose the role of representation in reinforcing established power relations in society. This chapter considers how posthuman figurations might offer new ways of configuring narratives of gene discourse that move beyond origin stories. A comparative study of the similarities and differences between Baudrillard and Haraway's approach to contemporary social operations concludes this analysis.

In the article 'Patricia Piccinini: Plastic Realist', Peter Hennessey observes that 'Biotechnology forms the focus of much of Piccinini's work, because in many ways, biotechnology crystallises the particular moment where the artificial and the natural — the organic and the technological — begin to dissolve into each other' (1999: 250). Piccinini's work finds a theoretical equivalent in the writings of Donna Haraway, who since her germinal cyborg manifesto of 1985, has challenged the myth of original unity and its associations with the categories of nature and woman. To this day, the cyborg retains currency as a key feminist figuration that allows for imaginings of alternative female subjectivities in a technologically-mediated world.

More recently, Haraway has identified the transgenic Oncomouse as a figuration that typifies the transgression of boundaries in biotechnological research. The crossover of the species brought about by the fusion of human and rat components puts Piccinini's rodent in good company with the Oncomouse. Like Piccinini's mutant rodent, the transgenic Oncomouse confuses the boundaries between nature and artifice. A transgenic organism, as explained by Haraway, 'contains genes transplanted from one strain or species...to another' (1997: 60). Inserted into the Oncomouse is a human gene to promote the growth of cancerous breast tumors. In this regard, it differs somewhat from *Protein Lattice*, where the distinction between the species dissolves as the cells of the human ear and the rat conjoin in the process of tissue engineering. Nonetheless, both tissue engineering and transgenics question the status of the natural when human intervention, by way of technology, becomes the norm. Accordingly, Haraway interprets the insertion of genes from one species into another as a transgressive border-crossing that transforms nature into culture by the process of human intervention (1997: 60).

In her essay 'Otherworldly Conversations, Terran Topics, Local Terms', Haraway asserts that the process of characterizing nature as Other is conventionally configured as a project of policing borders and boundaries; of constructing a materialized and inert fiction of the natural that is locatable and originary (1995: 70). Yet efforts to maintain nature as Other, as Haraway points out, are ultimately untenable; ruptured in everyday instances of boundary displacement, such as

the phenomenon of the Oncomouse. Haraway instead argues that the concept of nature within the popular psyche cannot and does not function as an essential reality in opposition to an equally inert and locatable notion of culture. Rather, she suggests that nature functions both as topos and trope; a rhetorical, artificial, constructed and all-pervasive 'common place'. She states:

nature is not a physical place to which one can go, nor a treasure to fence in or bank, nor an essence to be saved or violated. Nature is not hidden and so does not need to be unveiled. Nature is not a text to be read in the codes of mathematics and biomedicine. It is not the 'other' who offers origin, replenishment and service. Neither mother, nurse, lover nor slave, nature is not a matrix, resource, mirror, nor tool for the reproduction of that odd ethnocentric, phallogocentric, putatively universal being called Man. Nor for his euphemistically named surrogate, 'the human' (Haraway 1995: 70).

By posing nature as topos and trope, instead of as the Other of binary thought, Haraway's critique exposes nature as a construct and displacement, which does not exist outside of the culture that names it. Rather, nature functions as a 'common-place', to use Haraway's terminology, which allows us to further understand the workings of culture. Moreover, Haraway claims that returning to the notion of an intrinsic nature fails as a strategy in the critique of transgenics. Upholding the natural in the face of the unnatural, in this instance genetic engineering, risks reasserting the themes of racial purity and natural type that underpin racist fears of the Other, the alien and the mixed (Haraway 1997: 60-63).

Boundary transgression in the practice of biotechnology is, however, not an unproblematic concept for Haraway. In this regard, she aligns herself with the revisionist project undertaken by feminist critiques of science. Such critiques provide one instance of interventionist strategies to reconsider the kinds of relations established between practices of representation, scientific knowledge and subject constitution. Understandably, feminism has expressed uneasiness at the relationship between knowledge and power in the realm of science. This concern stems from the recognition that men's experiences and perspectives traditionally inform the production of scientific knowledges, and these, in turn, produce reality. Moreover, the masculinist bias of scientific inquiry and observation is masked by the construction of science as a form of empirical or objective study that purports to present a world-view, unaffected by societal factors such as the gender and race of the knowledge-maker.

As a counter to this claim of objective neutrality, feminist scholars of science have made the important assertion that biological science is not an empirical account of the world, but a form of

constructed knowledge that is intimately tied to social control and power-effects (Grosz and de Lepervanche 1988, Harding 1986, Hubbard 1990, Haraway 1991, Fox Keller 1995b). These critiques recognize the gendering of science in accordance with traditional binary dualisms, whereby science is a rational and empirical project, coded masculine, contra the natural and the feminine. In this schema, woman is positioned as object, but never the subject or knowledge-maker of scientific inquiry. Clearly, the traditional power/knowledge relationship is a vital point of concern for a feminist critique of knowledge construction. For women's experiences of lived reality are negated by the construction of science as a neutral endeavor that transcends social and cultural contexts. In an attempt to remedy this mis-conception of the scientific project, Ruth Hubbard has called for a feminist methodology in science to challenge the scientific myth of objectivity that masks an implicit gender bias (1990: 29).

Haraway too wholeheartedly endorses such an approach. Indeed, it forms the foundation of much of her scholarship.¹ The intimate association between transnational corporate capitalism and scientific funding and research is a consistent theme of Haraway's inquiry (1997). Although the role of power in knowledge-production is vital to an interrogation of the effects of biotechnologies, Haraway refrains from a simplistic critique of such technologies in terms of either resistance or complicity. Rather, an ethics of the transgenic organism is for Haraway, 'about the manner in which we are responsible for these worlds' (2000: 146). She states:

The tendency by the political "left"...to collapse molecular genetics, biotechnology, profit and exploitation into one undifferentiated mass is at least as much of a mistake as the mirror-image reduction by the "right" of biological — or informational — complexity to the gene and its avatars, including the dollar (Haraway 1997: 62).

Haraway's response to biotechnological boundary transgressions thus circumvents an approach to scientific study and its products as irrevocably 'bad' for women. Rather, she considers who it is that might benefit from the creations of technoscience, and acknowledges the kinship women have with transgenic creature such as the Oncomouse.

¹ Haraway's commitment to exploring the role of gender and power in the constitution of scientific knowledges has formed the basis of three monographs, as well as numerous articles. See Haraway, Donna J. (1989). *Primate Visions: Gender, Race and Nature in the World of Modern Science*, New York: Routledge. Haraway, Donna J. (1991). *Simians, Cyborgs and Women: The Reinvention of Nature*, New York: Routledge. Haraway, Donna J. (1997). *Modest_Witness@Second_Millennium.FemaleMan©_Meets_Oncomouse™: Feminism and Technoscience*, New York and London: Routledge.

Similarly, *Protein Lattice* provides fertile ground upon which to consider possible dialogues between feminist thinking and technoscience, namely biotechnologies such as genetic engineering and cloning. Piccinini's images question the ethical implications of biotechnological engineering, yet stop short of judging the value of creatures such as the mutant rodent. Instead, the viewer is encouraged to consider the kinds of subject positions afforded by posthuman figurations within the contexts of contemporary media, biological and information technologies. By recognizing the intersections of science and simulation culture, the myth of origins as naturalized by science is undermined. Moreover, at this site of instability posthuman figurations such as the mutant rat open up possibilities and potentialities for alternative understanding of bodies, subjectivity and gender in a technologically-mediated society.

Like Haraway, Piccinini avoids a technological determinism that decrees the non-natural a threat to human existence. I suggest that the threat of technology as a means of controlling the human is allayed by this hybrid mutant of the information age. By emerging from the site at which natural and technological, real and illusion collapse, *Protein Lattice* disrupts the myth of a monolithic, dystopic technology that controls an equally immutable nature. Piccinini's depiction of the mutant rat shares Haraway's ambivalence toward the products of technoscience. This ambivalence arises from a culture where value systems of good or bad are too simplistic to understand the complex negotiations that constitute society.

Piccinini has spoken of working from a compromised space that acknowledges the appeal of popular media culture, 'a desire for the shiny stuff that consumer culture has to offer (Plastic, TV, sneakers, the FACE) although I know that they are not good for me' (Piccinini 1996). It is the artifice and falsity of Piccinini's images that opens up a mode of partaking in technological and popular cultural environments often deemed 'bad for us' — an affront to human values and sensibilities. The seductive sheen of Piccinini's forms and her formal use of contrasting light and dark areas creates an image that is glossy, seductive and aesthetically appealing. The viewer is drawn to look at something that is evocative, yet unsettling.

Piccinini's work plays upon the aesthetics of popular media culture and advertising. In her book *No Logo*, Naomi Klein has argued that advertising has permeated the spaces once occupied by images from the arts, culture and media, to the point where the elements that distinguish one type of image from another can no longer be discerned (2000: 29-44). Klein is preoccupied with advertising's encroachment upon non-commercial cultural space through a process of corrupting

and infecting other forms of image-culture. Indeed, the erosion of once-clear divisions between art and popular media and high and low culture, is indicative of the postmodern condition of contemporary society (Jameson 1983: 112).

Piccinini questions the idea that the colonization of non-commercial space by advertising is a one-way process. Art too may inhabit the spaces of consumption and popular media. An image from the *Protein Lattice* series (Fig.8) was displayed like a giant advertising billboard on the Republic Building in Melbourne's Central Business District. By emulating the production and placement strategies of advertising, Piccinini disrupts the division between cultural forms. While Klein argues that the breakdown of boundaries between high and low culture allows for the violation of public space by advertising, Piccinini prefers to interpret this cultural collapse as precipitating a dialogue or exchange *between* forms. Mica Nava reveals this interconnection between art and commercial images to be shaped in part by young people's tendency to 'consume commercials independently of the product that is being marketed' (1992: 174). Her study contests the dominant view of advertising as directly tied to consumption and interrogates the belief that art and advertising are consumed differently (Nava 1992: 181).

As noted earlier, Piccinini's inspiration for *Protein Lattice* derived from other media images. This tendency toward citing, revision and reworking of cultural artifacts is indicative of a postmodern experience that Jean Baudrillard observes is primarily of the order of the visual. In the context of cultural production increasingly shaped by the digital, Piccinini's rat emerges as a figuration that demands a particular understanding at the level of the representational economy in which it is produced and circulated. It is within the context of simulation culture that we might begin to understand the relation between representation and reality as no longer irrevocably opposed. Within a logic of simulation, the real no longer constitutes the referential point for representation; it has been substituted by the sign. And in turn, it is the experience of hyperreality as a mode of signification that creates the possibility for understanding posthuman figurations beyond fixed interpretations.

The digitally constructed forms of *Protein Lattice* are indicative of a contemporary experience of the visual that severs the link between an original object and its reproduction. Piccinini collapses the real and its representational equivalent by digitally recreating this mutant rodent. In doing so, she plays with the boundaries between human and animal, virtual and real, so that the purpose of the image is not to offer the viewer a copy of an original, nor to mirror the products of

technoscience, but to complicate the idea of origins. Piccinini does not aim to depict reality. Indeed, it is the very notion of reality, within a context of simulation, that I argue collapses in her work. Rather than representing an approaching dystopic reality, Piccinini favors a process of becoming that is unable to be fixed within signifying practice. Neither do I believe that Piccinini advocates an unproblematic, utopian ideal of what the future will be. Her images circulate as potentialities, possibilities or processes beyond a dichotomy of what is real and what is illusion. What Piccinini constructs is a space to contemplate the complexity of contemporary culture, a site where the absolutisms of a dichotomous value system are replaced by a compromised vision. In a context where the distinctions between material and virtual worlds collapse, Piccinini favors imaginings that reside beyond the codes of signification and their enactment.

In Baudrillard's terms, an understanding of the subject is no longer determined by its status as originary source, but is instead characterized by the operational configuration of the '*precession of the model*' (1994: 16, italics in text). As a digitally generated image, the rodent performs the function of the model, whereby '(o)nly affiliation to the model has any meaning, since nothing proceeds in accordance with its end anymore, but issues instead from the model, the "signifier of reference", functioning as a foregone, and the only credible, conclusion' (Baudrillard 1993: 56). The significance of this concept for reassessing the relationship between reality and representation is made apparent throughout *Protein Lattice*, as the mouse figuration is endlessly repeated, doubled and re-cited.

In one image from the *Protein Lattice* series a female model sits on the floor among a teeming mass of digitally-recreated rats (Fig.9). The naked woman wraps her left arm around her chest. Her right arm is outstretched, her hand touching the floor. With knees demurely drawn up toward her torso and downcast eyes, the model appears contemplative, yet not fearful. The configuration of rats and model does not function to polarize the artifice of biotechnology against the natural woman. Rather, an equivalence is constructed between the two forms to suggest that both are unreal products of a consumer culture driven by desire and aesthetics. Both the rats and model are naked, hairless and exposed; illuminated by the harsh gaze of the media spotlight so they appear vulnerable. By juxtaposing the rodents with the woman, Piccinini insinuates that gender is also a simulated construct. The smooth, plastic-looking skin of the model assures us that she is no more real than her hybrid friends. Just as the rat is a digitally-generated image, so too is the woman. In her artist's statement, Piccinini regards the association between rats and models as one of sympathy for these objectified constructions of a phallogocentric symbolic order. Both the

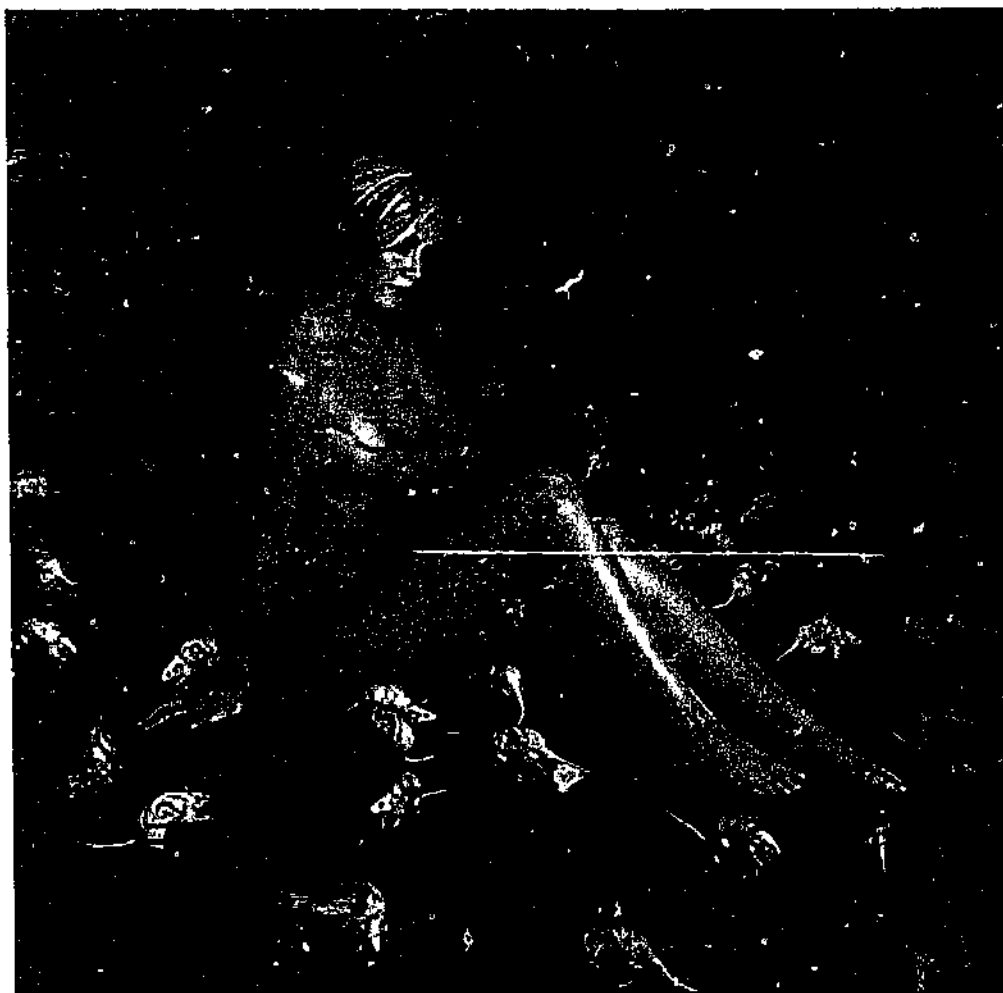


Fig. 9.

rat and model are, in her opinion, 'organic vessels destined to contain the desires of those who utilise them...both are used interchangeably, without any regard to their specific personality. There will always be another one' (Piccinini 1997).

By re-citing and repeating the image of the rodent, Piccinini ruptures conventional modes of signification based upon a fixed point of origin. She instead enacts Baudrillard's assertion that '(a)t the end of this process of reproducibility, the real is not only that which can be reproduced, but *that which is always already reproduced: the hyperreal*' (1993: 72, italics in text). The proliferation of rats suggests that no origin or referent exists to precede the model, but that the model itself becomes what we understand to be reality, fracturing the dualisms of real/representation, origin/replica, upon which difference is structured. Signification is broken up by the act of replication, preventing the possibility of a unified, originary, or fixed meaning to the text. That is not to say that reality is made meaningless in the free play of signification, rather reality becomes a contested zone.

Not only is the model that which bears no relation to reality, but the operation of simulation ensures that social exchange occurs according to a model that is already mapped out as an anticipated response. The collapse between the once-incompatible spheres of the natural and the technological is facilitated in *Protein Lattice* by the refiguration of meaning as information code. In *Symbolic Exchange and Death* (1993) Baudrillard interprets the code as the 'new operational configuration' of the society of simulacra (1993: 57). A relational equivalence between digitality and genetics is exposed and explained by Baudrillard in terms of a metaphysics of code. According to Baudrillard, the experience of reality is constructed through a definitive model of the 0:1 matrix. Existence within a culture of the hyperreal may be explained through binary coding:

Cybernetic control, generation through models, differential modulation, feedback, question/answer, etc.: this is the new *operational* configuration (industrial simulacra being *mere operations*). Digitality is its metaphysical principle...and DNA is its prophet' (Baudrillard 1993: 57, italics in text).

As Douglas Kellner suggests, models are generated from codes such as the media, which exist prior to the manifestation of the model within the media. Echoing Marshall McLuhan's catch-cry that the medium is the message, it is not the information presented through media forms that

manufactures what we know, but the medium/media itself. The code of simulation becomes the system in which we operate.²

Baudrillard, however, is not alone in noting this phenomenon. Feminist commentators such as Fox Keller, Haraway and Hayles observe the conflation of the digital with the biological at the site of the genetic code. Each notes that metaphors of information and the code underpin a cultural shift in thinking about the organism as biological entity to one where it is regarded as technological system (Fox Keller 1995a: Chapter Three, Haraway 1991: Chapter Three, Hayles 1999: Chapter Nine). Haraway describes this new regime of the life sciences as governed by capitalist reproduction, so that the body is imagined in terms of cybernetic systems and communications networks (1991: 45). The communications revolution of the Second World War was the turning point for re-conceptualizing nature as technology and information (Haraway 1991: 49). Both modern biologies and communications sciences deploy information as the quantifiable unit that allows for '*the translation of the world into a problem of coding*' (Haraway 1985: 83, italics in text).

Thus far throughout *Transformations*, I have theorized posthuman figurations in the popular media to reformulate the relationship between bodies and technologies as a process of transformative potentialities. I argue that posthuman figurations open up new understandings and possibilities for what a subject might be in techno-culture, often by challenging the organic boundaries of the subject. The textual manifestations of the posthuman discussed up to this point examine the body as it is extended into systems and networks (the posthuman figuration as plasticity, catastrophe, and interface). I now consider the inverse — what the implications might be for questions of identity and difference when the body is miniaturized to the level of the cell or gene. In particular, I interrogate the types of structural responses to the body refigured as genetic code, as are often found in socio-biological and feminist accounts of the Human Genome Project (HGP).

An instance of a shift in figurations of the body can be found on the website titled *Human Genome Project Information*, funded by the Human Genome Program of the United States

² It is worth noting the claim of various commentators that Baudrillard is insufficiently clear in his definition and use of the code. See Connor, Steve. (1997). *Postmodernist Culture: An Introduction to Theories of the Contemporary* (3rd Edn.). London: Blackwell, 52; Levin, Charles. (1996). *Jean Baudrillard: A Study in Cultural Metaphysics*, London and New York: Prentice Hall, Harvester Wheatsheaf, 268;

Department of Energy; one of the key players in the sequencing of the human genome.³ In the top left-hand corner of the webpage is a circular logo. The image is constituted by a ring, around which run the names of scientific disciplines — 'physics', 'ethics', 'informatics', 'engineering', 'chemistry' and 'biology'. Encased within the sphere is a brown silhouette of a body from the waist up. Devoid of any discernable features, the figuration is set against a pale blue background. A golden strand of DNA wraps around this body, thus conflating the circular logo with a biological cell.

The circle of science forms a unified barrier around the human form enveloped in a DNA strand, suggesting the construction of the body by scientific disciplines. Yet the sciences are also positioned as 'outside of' the bodily figuration, perpetuating the myth of the objective, rational world-view of science, which reports factual information without bias and exists as separate from society. Given the iconography used to represent the HGP, the formation of the body could easily be understood as the subject of humanism; constructed and contained within the 'circle of truth' established by a masculinist scientific doctrine that is intimately tied to the project of Enlightenment humanism.

This type of representation is consistent with the constitution of the body as information code. Evelyn Fox Keller asserts that the basis of life has undergone a significant shift in location away from the bodily organism toward the cell, or more specifically its genetic component (1995b: 52). As evidenced in the HGP website, the idea of the cell as representative of life is figuratively enacted as the body resides within the cell and the DNA coil. Richard Doyle, in his monograph *On Beyond Living: Rhetorical Transformations of the Life Sciences* (1997), has also written of the tendency in molecular biology to posit the body as code, thus blurring the distinction between machine and organism. This transformation in what constitutes the organism plays out as a series of metaphors that formulate the living organism as an information system. He makes the claim that molecular biological discourse 'works by producing an invisibility of the body, whose object is no longer the living organism' (1997: 59). Instead, he argues the organism undergoes a shift toward an ahistorical, non-specific and dislocated myth of the molecule (Doyle 1997: 59).

Kellner, Douglas. (1989). *Jean Baudrillard: From Marxism to Postmodernism and Beyond*, Cambridge: Polity, 62.

³ This website can be located at <http://www.ornl.gov/hgmis/> with a full history of the HGP and its aims. See also Marks, Joan H. (1994). 'The Human Genome Project: A Challenge in Biological Technology', In

The representation of the body by the HGP website is consistent with both Keller and Doyle's observations of the shift in representing and configuring the body. Rather than envisioning the organism as the primary subject constituted by an infinite multiplicity of cells, our conventional understanding of the body is radically reformulated. The body is no longer the sum of its molecular parts, but is instead miniaturized and subsumed by the cell, so that the cell becomes representative of personhood. Temporal and spatial boundaries are erased as the body becomes cellular information.

An iconographic figuration of humanity located at the site of the cell or its genetic component, is substantiated by the rhetoric of origins. I agree with Evelyn Fox Keller that the accessibility of gene theory in the popular domain relies upon the myth of humanity figured as 'origin story' (Fox Keller 1995b: 63). In the website image, the body entwined in a DNA coil appears smaller than both the cell and its genetic component, suggesting a re-alignment in the understanding of the body to accommodate or naturalize a biologically essentialist position that DNA provides the foundations of human existence. The prevalence of the rhetoric of origins in DNA discourse is also evidenced by the literature used to describe the genome, such as 'blueprint', 'centre', 'code' or 'essence' (Doyle 1997: 80).⁴

Haraway explores the associations between the genome and a myth of origins in the fabrication of the gene as fetish. According to Haraway, the process of mapping the genome necessitates the creation of boundaries, borders and limits. It is through the act of constructing a cartography of the genome that the gene becomes a fetishized 'thing unto itself', free of tropes or meaning outside of itself; a unitary object figured as a site of origin. The gene is read as a metonymic object precisely for its status as disassociated and fragmented from the body, operating as the fetish does in psychoanalytic discourse — an interchangeable substitute, whereby the part (the gene) comes to stand for the whole (the organism), as well as in terms of Marxist formations of the commodity fetish (Haraway 1997: 141-145).

Gretchen Bender and Timothy Druckrey (Eds.), *Culture on the Brink: Ideologies of Technology*, Seattle: Bay Press, 99-106.

⁴ Examples of this tendency include the following: Bodmer, Walter and McKie, Robin. (1994). *The Book of Man: The Quest to Discover our Genetic Heritage*, London: Little, Brown and Company. Cooper, Necia Grant (Ed.). (1994). *The Human Genome Project: Deciphering the Blueprint of Heredity*, California: University Science Books. Hood, Leroy; Kelves, Daniel J. (1992). *The Code of Codes: Scientific and Social Issues in the Human Genome Project*, Cambridge and Massachusetts: Harvard University Press. Lee, Thomas F. (1991). *Human Genome Project: Cracking the Genetic Code of Life*, New York: Plenum.

This 'non-critical relationship to genetic technology' (Haraway 2000: 91) may be interpreted in the logo of the HGP website as sustaining the rhetoric of sameness in difference. Put more simply, in a genetic myth of origins, difference becomes an effect of social conditions underpinned by a genetic sameness. The consequence of espousing DNA as the source of origins is made evident at the site of cultural understandings of identity and difference. An account of the body located at the point of genetic 'origins' is problematic as it maintains an understanding of difference in terms of an absolute or cult of the same. What is represented in the HGP logo is a sexually undifferentiated silhouette of the human body entwined in a DNA strand. The HGP logo denies its bodily figuration either biological or cultural markers of sexual difference. So too are temporal and spatial dimensions effaced. Any specific characteristics that would assist in differentiating the individual are effaced by the homogenizing presentation of a silhouetted figure within the circle/cell.

Difference, it could be argued, is not apparent at the level of deeper genetic determinants. Instead, difference manifests at the surface, or external site of the body as it interacts socially and culturally. This view of the body as 'blank slate' upon which culture imposes gendered identity resonates with a feminist social construction of gendered subject formation. In this schema, difference is assigned to surface phenomena; ascribed to the context in which the body is located and enacted. Simultaneously, the sublimation of the body within the DNA coil insinuates that gender difference is biologically determined. The complexity of human existence is reduced to the function of genes. As Dorothy Nelkin and M. Susan Lindee point out, genetics is deployed by popular culture to legitimate sexual and racial difference as innate and genetically predetermined (1995). The specificities of bodily difference at the level of the social, and lived relations of the subject are negated by the body as by-product of molecular and genetic processes.

Difference and identity are thus maintained within the binary relations of culture/nature, representation/reality when difference is conferred as a social or surface phenomena, as well as an essential characteristic. The rhetoric of genome as origin allows for the simultaneous denial and espousal of difference, yet this is maintained within the structural relation of difference as either essential or cultural. For a feminist political project that strives to recognize the contextual history, location and lived experience of the female subject, the perpetuation of difference as biologically determined fails to acknowledge the role of society in subject constitution. Equally problematic is the denial of a commonality between women that cuts across social and cultural differences. For in order to define the specificities of female subjectivity beyond a universal and

abstract concept of the human, feminism critically argues for an understanding of identity that is specific to the question of difference as it is configured within contextual, lived relations of the subject (Diprose 1995: 162). When humanity is reduced to genetic code, it becomes reproducible and interchangeable, challenging both the integrity of the human subject, and the specificity of gender difference.

Feminist critique has contributed significantly to the interpretation and understanding of scientific images, reminding us that knowledge is socially constructed, subjective, political, and intimately tied to power relations. Acknowledging the significant contribution of feminist critiques of science upon how meaning is made and understood, I now consider the kinds of problems that arise from feminist engagements with practices of representation that maintain a structuralist approach to meaning formation.

As indicated by the feminist critique of representations and metaphors of the genome, concerns have arisen regarding the sublimation of identity and agency in light of molecular genetics tendency toward the model and the code. Recently, Catherine Waldby has spoken of the Visible Human Project (VHP) as another instance of the body as information code. As described by Waldby, the 'VHP creates complete, anatomically detailed, three-dimensional representations of the male and female human body and makes these representations available on the Internet' (2000: 25). To achieve these images, a cadaver undergoes a series of processes that involve the scanning, slicing and photography of body sections, to create a digital archive of 'highly resolved transverse cross-sections through the body' (Waldby 2000: 25). These sections can be put together or disassembled to create a virtual corpse.

In noting that the VHP resides within a new economy of representation associated with digital technology, Waldby goes on to suggest that what renders the VHP so problematic is its ability to perfectly recreate the 'look' of the body-as-flesh (2000: 28). It is the apparent realism of the VHP that Waldby finds so disturbing. Yet she neglects to consider the mode by which the image functions within contemporary culture. By arguing that the model shapes an understanding of reality, Waldby agrees with Baudrillard's assertion that the model precedes reality. In Waldby's argument, however, the VHP is a representation that acts upon our reality, without challenging the idea of what reality is. She fails to question the notion of the real that she implicitly upholds. What is understood to be real, in Waldby's case the fleshy body, is maintained as an inert and material configuration. I propose that while the VHP may look real, viewers raised within a

postmodern visual landscape are aware that images and reality are not necessarily the same thing. The supposed 'objective' scientific representation of the body becomes just one of many images that make up the postmodern cacophony of visual signs. In an economy of symbolic exchange where signs only have value in relation to each other, the VHP is no more or less real than any other image. Within a representational economy of the visual, images such as the VHP are not read against a real, but understood in terms of a sign system that constitutes the current mode of figuring social reality.

For feminists, the biopolitical implications of flesh-made-data revolve around the management of bodies through digital technologies such as IVF and cloning (Waldby 2000: 29). Biomedical representation is perceived as participating in an economy of flesh that ensures the standardization, replication and commodification of the body (Waldby 2000: 32). In her critique of the standardization of the body for use as an object of exchange, Waldby makes reference to the analogy Rosi Braidotti constructs between pornographic representation and the mathematicization of the body (Waldby 2000: 32). Interestingly, it is the feminist rhetoric surrounding pornography, representation and the body that I contested in Chapter Two, that Waldby enlists to attack virtual representations of the body. In both pornography debates and the VHP, the image is conceived as an affront to women's lived realities. It is this notion of the image as a violence upon the lived body that upholds an unproblematic relationship between representation and reality. Moreover, by suggesting that the VHP functions as a technology of control and manipulation of the body, Waldby comes dangerously close to falling back into the binaries of technology, science and masculinity, contra nature, the body and femininity.

Continuing the line of analysis that interprets representations as making material reality is anthropologist Emily Martin. In a study of the gender stereotypes prevalent in scientific representations of reproductive biology, Martin exposes the role of cultural metaphors in shaping the construction of the natural world in science. Her article entitled 'The Egg and the Sperm: How Science has Constructed a Romance Based on Stereotypical Male-Female Roles' (1996) argues that the depiction of reproductive physiology in both popular and scientific fields is constructed upon gender stereotypes in culture, rather than an observation of the actual biological processes that occur. Along typical gender lines, sperm is represented and depicted as active, virile, prolific, strong and valuable (1996: 104). Ovulation, or the female production of an egg is constructed as oppositional 'other'. It is passive, necrotic, weak and slow (1996: 106), while simultaneously figured as 'the female aggressor' posing a dangerous threat to sperm (1996: 111).

Yet by proposing that gender-typed imagery at the cellular level reinforces phallogocentric understandings of the social body, Martin effectively maintains a semiotic emphasis upon the production of meaning. That is, the scientific text not only constructs social effects of women's inequality, but becomes a symbol of the reality of women's embodiment.

According to Martin, constructing gendered narratives at the site of the cell risks naturalizing social constructions as essential characteristics, as well as 'endowing cellular entities with personhood' (1996: 133-14). This reduction of personhood to a cellular level is the trope that underpins the shift in conceptualizing the body in terms of data and codes, as Waldby and numerous other commentators have observed. Both instances of the interpretation of scientific imagery that I have raised here rely upon the notion that what is represented in the image is reflected in social understandings of gender difference. In response to this approach, I ask the following questions: How might posthuman figurations be re-thought in a way that moves beyond 'origins' and 'essentialisms' to dislocate a structural understanding of what the text means, in favor of an examination of the types of multiple responses the text might hold for the viewer? Moreover, how might feminism engage with a simulation that abolishes definitive meaning and reduces all political and social events to pre-conceived models?

The answer, I believe, resides in the status of the image as digital. The mutant rodents of *Protein Lattice* are '*conceived according to their very reproducibility*' (Baudrillard 1993: 56, italics in text). Their digital constructedness confuses origins and reality. To suggest that the anticipation of the model reduces or limits our engagements with the social world would be a misinterpretation of Baudrillard's political project. Rather, the infinite replication of the model causes a short-circuit in established modes of meaning based upon dialectical thought, opening up a potentiality of meaning and interpretation (Baudrillard 1994: 16-17). Just as there is no original rat, only the digital information referred to as 'the mutant rodent', the myth of the originary or natural is exposed as an effect produced by simulation models.

By existing as digital constructs, the mutant rats disrupt the status of the scientific image as origin story or truth account, as evidenced in popular discourse. Baudrillard's theory of simulation reminds us that there is no longer any real, only coded information that simulates a real. The organic is an effect produced by the virtual, rather than existing in opposition to the virtual. The digital image exists purely as information or data. As Baudrillard attests, the simulacra can never function as image. Freed from a referential signifier, simulation can only operate as pure

information (Baudrillard 1994: 5). Similarly, the genetically engineered organism Dolly the sheep is no longer a reality, but a virtuality. She exists as genetic information named 'sheep', which cannot be differentiated from what are considered to be real or natural sheep. As a simulation model of a model, itself without origins, the mutant rodent of *Protein Lattice* ruptures the formal relation between representation and its reality. This disruption of meaning undermines the legitimacy of scientific rhetoric, as seen in the discourses of gene theory, to perpetuate the myth of human origins.

As digitally generated images, the works in the *Protein Lattice* series confuse the binary distinctions informing the construction of the organic and the machinic, rupturing the seamlessness of these Cartesian categories. Instead, the rat encourages another kind of understanding of how posthuman figurations operate beyond dialectics. The model of the rat becomes our reality, undifferentiated from the scientific experiment upon which Piccinini's rat model is drawn. For I argue that Piccinini's project illustrates how the media image of the mutant rat, and her own digitally recreated rodent, circulate as products of simulation. In each instance, the mouse becomes a sign of the real whose value is no longer anchored in its relation to reality, but instead evades the construction of meaning.

The mapping of the Human Genome also complies with the notion of the 'precession of the model' of the third-order simulacra. As a project whose aim is to produce the subject that it sets out to describe, the gene map, in Baudrillard's terms, is already configured: 'the map that precedes the territory...engenders the territory' (1994: 1). As a model that is always already reproduced, the HGP is a hyperreal that displaces the assumptions informing how we read and interpret images of technoscience. The construction of the genome as the blueprint of human life and origins is undermined by its status as simulation. For the genome's currency no longer resides in the real, but circulates within a system of signs liberated from any referential locus or fixed point of meaning. The possibility to undermine and refigure the humanist presuppositions informing the gene project, may be located, according to Baudrillard, at the site of the 0:1 configuration of the code.

Generated from the code, the simulation model is thus a virtual entity. As such, the visual cannot be solely understood via the traditional modernist dimensions of space and time. As the new organizing principle of contemporary society, the code is not governed by meaning but has no meaning. It carries no vestiges of structure or order through which to purposefully make sense of

the world. Just as there is no original mutant mouse, only the digital information referred to as 'the mutant rodent', the myth of the originary or natural is an effect produced by simulation models inscribed within the code. The 0:1 of the digital cannot be figured in terms of an oppositional duality, where one term is inscribed with positive value and the other is its negation. Rather the 'bit' carries no meaning, as both presence (1) and absence (0) exist as positive signals. And it is the endless proliferation of positivity in the operational configuration of the code that denies negativity or the possibility of Otherness.

A semiotic critique of the HGP website logo interprets the genome project as decontextualizing the body and denying the markers of identity. This, I argue, reasserts the universal or humanist myth of the origins of life. Moreover, the essence of humanity is threatened as the body is equated with the machine, or the digital with the gene. Yet by figuring the body as a code script locatable within the larger system of the 0:1 matrix, as Baudrillard does, the collapse in distinctions between genetic code and digital code operates as an anti-humanist critique of the subject. Fixed formulations of the body and identity are redefined so that the sanctity of human essence and identity are replaced by the multiple configurations, interconnections and embodiments between organic and technological systems that define the posthuman.

Baudrillard locates the phenomenon of the miniaturization of the body in contemporary life as a product of simulation culture. He states:

The real is produced from miniaturized cells, matrices, and memory banks, models of control — and it can be reproduced an indefinite number of times from these. It no longer needs to be rational, because it no longer measures itself against either an ideal or negative instance. It is no longer anything but operational (Baudrillard 1994: 2).

By suggesting that the real is that which is replicable, Baudrillard offers an alternative construction of the self that does not rely upon origin stories. According to Baudrillard, the assumptions underlying what was once constructed as the real — the notion of an originary or essential characteristic, as opposed to the dialectical Other of representation — has been replaced within a culture of simulation by 'miniaturized cells, matrices, and memory banks...reproduced an indefinite number of times' (Baudrillard 1994: 2). It is within a hyperreal culture of endless replication that the relation between representation and reality escapes being positioned as irrevocably opposed. Instead, reality and representation collapse into each other, opening up a condition of possibility to refigure our understanding of the body as it is transformed by its

encounter with technology. Moreover, as a cartography that reduces the human to a disembodied strand of chromosomal matter, the genome may be located at the point where Baudrillard argues that history ceases to exist.

In the article 'The Year 2000 Will Not Take Place' (1986), Baudrillard associates the disappearance of history with the beginning of a culture of simulation. To quote Sean Cubitt, '(u)nder simulation, no distinctions are possible, and therefore no history' (2001:51). Baudrillard pursues two hypotheses about the disappearance of history. The first suggests that the acceleration of forms of communication in a culture of information and the hyperreal propels the subject 'beyond a certain space-time, a certain horizon where the real is possible' (Baudrillard 1986: 18). This 'speeding-up' of society creates an 'escape velocity' that liberates the subject, marked with his/her bodily signifiers, from a process of signification (Baudrillard 1986: 18). This acceleration of the subject is consistent with my arguments of the previous chapter, which noted that technologies of speed such as electronic communications and media systems displace the subject whose response times are inadequate to maintain a dialogue at the operational speed of media and information technologies.

Articulating the body as freed from the referential locus of history and the real is in keeping with Baudrillard's understanding of the signifier as elevated to the system of the sign. Meaning is disassociated from any relation to the real by the process of simulation (Baudrillard 1994: 2). The referential relation between signifier and signified as a means of understanding the world is ruptured as the acceleration of life by media diffusion projects all processes and bodies into the hyperspace of the hyperreal. This is what Baudrillard terms simulation.

The second hypothesis Baudrillard proposes inverts the first, by claiming that history disappears via the 'deceleration of processes' (1986: 20). As opposed to the acceleration of society to a point of 'no-return', Baudrillard interprets the saturation of the social masses by information and media as causing a form of inertia. Historical events are made meaningless as 'the masses neutralize history and function as a screen of absorption' (Baudrillard 1986: 20). Rather than projecting into hyperspace, as suggested by the acceleration of history, Baudrillard maintains that a theory of inertia is predicated upon a societal indifference that occasions the end of history, or the point of no return.

In both instances, history disappears because it has exceeded its limit point. And it is at this moment of excess that Baudrillard argues we inhabit a culture of simulation. For as history and meaning disappear, we can no longer return to an understanding of history or the subject that is located in an original or essential reality, as suggested by the myth of origin stories employed in constructions of the HGP. Baudrillard explains it as such:

we can no longer discover history as it was before information and the media. The original essence (of music, of the social...), the original concept (of the unconscious, of history...) have disappeared because we can never again isolate them from their model of perfection, which at the same time is their model of simulation, of their forced assumption in an excessive truth, which at once is their point of inertia and their point of no-return. We will never know what was the social, or what was music before their present exacerbation in useful perfection. We will never know what history was before its exacerbation in the technical perfection of information or its disappearance in the profusion of commentary — we will never know what anything was before its disappearance in the completion of its model...Such is the era of simulation (Baudrillard 1986: 23).

This endless replication of the present denies the possibility of progressing toward a future. By locating history at the site of its disappearance, Baudrillard allows us to make sense of the body as it is represented by gene discourse. A prevalent myth of origins within gene theory and its representations, operates as a fixing device to assure our existence in the radical indeterminacy and ambivalence of simulation culture and the death of the real — '(f)inality is there in advance, inscribed in the code' (Baudrillard 1993: 59). For as Baudrillard notes, the loss and disappearance of an aura stimulates the desire for identity, authenticity and proof of existence (1986: 26).

Baudrillard adopts simulation as a productive counter-strategy to collapse the rhetoric of subject/object, real/imaginary, nature/artifice that structures binary thought and underpins the notion of origins. Although simulation implies a loss of meaning, it simultaneously offers liberation from a system of signification that assumes a relation between the referent and the real. As a result, meaning is no longer consigned to a model of signified and signifier, but creates the possibility for a proliferation of signs and meanings within culture. It is at this point where history and meaning cease to exist that the limits of subject constitution may be reconfigured.

Just as the miniaturized body of gene discourse disturbs subjectivity understood within a linear historical narrative, so too does another figuration, the clone, disrupt ontological understandings of identity and being. In his essay 'The Hell of the Same', Baudrillard identifies the fantasy of

the double as the most ancient '(o)f all the prosthesis that punctuate the history of the body' (1999: 113).⁵ It is through the imaginary double, or mirror image of psychoanalytic discourse, that the subject comes into being. During the mirror phase the subject is 'split' between the *m/other*: and the desire to know the self as a unified entity. Upon recognition of the self in the mirror, the subject simultaneously experiences a process of mis-recognition, whereby the Other of the mirror image is experienced as an imaginary relation of the self. It is thus as a split subject, as both self and Other, that human ego is forged and the subject enters the symbolic domain of language, law and culture. Subjectivity demands a division: an imaginary relation to the self in order to exist within the symbolic order. The power of the double resides in its imaginary status, 'upon the fact that the double is and remains a phantasy' (1999: 113).

It is in the act of cloning that this fantasy double is materialized, calling into question the boundary demarcations between self and Other, life and death. Cloning puts an end to the subject as it is understood by psychoanalysis. As the product of the replication of genetic material from an individual cell, the clone does not undergo the division of parental DNA, nor the division of the mirror phase that forms the subject. Cloning makes psychoanalysis redundant, as the subject can no longer be understood in terms of the Oedipal drama. The Other is abolished by the clone, replaced by an accumulation of positivities that is described by Baudrillard as the 'reiteration of the same: 1+1+1+1, etc.' (1999: 116). As the exact replication of the genetic information contained in a single cell, the clone is the model of simulation par excellence, the ultimate destabilization of any definitive distinction between self and Other.

Without a mother or father, the clone is foreshadowed by Baudrillard as a reproduction that relies upon the propagation of genes from an individual cell. Baudrillard states:

Father and mother are gone, but their disappearance, far from widening an aleatory freedom for the subject, instead leaves the way clear for a *matrix known as a code*. No more mother, no more father: just a matrix. And it is this matrix, this genetic code, which is destined to 'give birth', from now till eternity, in an operational mode from which all chance sexual elements have been expunged (Baudrillard 1999: 115, italics in text).

Biotechnological modes of reproduction see the 'disassociation of reproduction from sex', replacing the mother with the matrix in a commonly voiced concern for the negation of the body within the technoscientific landscape (Sofia 1992: 14-16).

⁵ This essay forms one of the chapters of Baudrillard, Jean. (1999). *The Transparency of Evil: Essays on Extreme Phenomena*, (James Benedict, Trans.), London and New York: Verso. (1990).

Cloning eliminates the need for two sexes for procreation. Also abolished is the perception of the body as the locus of a unified individual conceived by sexed parents. Like the HGP, the clone ensures an understanding of the body in terms of genetic information. Yet while the HGP miniaturizes the body, the clone extends and propagates a singular cell to create a human form. It is the cell that exists as the prosthesis of the body. Unlike the external prosthesis of the mechanical age, digitality sees the prosthesis internalized (1999: 119).

As sexuality is no longer required, so too is death bypassed. The greatest implication of cloning is not the disassociation of reproduction from sex. Indeed, the sexual revolution and contraception have already challenged the assumption that sexual activity is determined solely by reproduction (Baudrillard 2000: 10). Rather, the concern is the disassociation of life from death. As Baudrillard suggests, '(t)he question concerning cloning is the question of immortality' (2000: 3). Where once humanity was defined by the cycle of life and death, the clone threatens to 'liberate us from sex and death' (Baudrillard 2000: 8), to abolish the division between self and Other that constitutes the formation of the subject.

Although the clone signals the disappearance of the subject, this is not to suggest the subject's negation. Rather, subjectivity occupies an indeterminate space that is neither self nor Other (Baudrillard 1999: 122). By doing away with the subject/Object divide in the form of the clone, Baudrillard positions the subject within a hell of Sameness 'doomed to self-metastasis, to pure repetition' (1999: 122). An ambiguity pervades Baudrillard's vision of the clone. It is conceived as both promise and threat. Despite the bleakness that accompanies the doom and hell of Sameness, I suggest that it is through the disappearance of the body that new bodily modalities may emerge to accommodate a proliferation of differences beyond a dichotomous system of values. For it is only through radical Otherness that one may escape the Hell of the Same; an Otherness constituted without reference to a self — not as a negativity but a point of excess that fractures the coherence and primacy of being.

The clone does not deny the body and history, inasmuch as it is a product of a particular cultural and historical moment where our understandings of what it means to be human — the body and history, as well identity and difference — are being radically redefined. The potency of the clone resides with its disruption of a dominant narrative of the human, which in turn, enables formulations of the subject beyond an identity politics structured in terms of self and Other.

Perversely, Baudrillard conceives the elimination of differences by the Sameness of the clone as a replacement of dichotomies of value with pure differences, which cannot find recourse in binary oppositions. A difference construed as the Other of dominant discourse is replaced within the sign system by a difference that functions beyond the limits of signifying practice.

Cloning is, as Hartouni effectively articulates, 'a question about identity that assumes and invokes while also signaling a shift in prevailing cultural beliefs about who and what "we" are' (Hartouni 1997: 112). As indicated by Haraway's discussion of the natural that opened the chapter, the boundaries between what is natural and what is technological have been thoroughly confused. Accordingly, the parameters of what counts as natural, and what technological interventions are acceptable, depend upon changing configurations of culture. Certainly, as Hartouni points out, cloning is not the first example of shifting boundaries to challenge the constitution of the human. By alerting us to the most common objections to cloning — the history of eugenics, the commodification of the body and human life, the disruption of generational kinship structures, and the dissolution of identity and individuality — Hartouni reminds us that the controversies surrounding cloning are not new, but a continuation of a history of engagements between humans and technology that disturb and reset the boundaries of what it means to be human (Hartouni 1997: Chapter Seven).

The loss of the body in narratives of the genome and clone is symptomatic of the threat of technology invading the natural. The natural, conventionally equated with the corporeal, is paradoxically upheld and diminished in genome rhetoric. While genes are constructed as the basis or essence of nature and life, the reduction of the body to a mass of genetic material denies corporeality, difference and the sanctity of human existence. I argue, however, that the body is not erased by posthuman technologies, but the limits of embodied reality are reconfigured to open up new modes of understanding the self beyond a politics of identity predicated upon dialectics. By displacing the natural, and its associations with reality, humanness and origins, we may begin to re-think the relationship between genes, bodies and representation. In conclusion, I synthesize the positions of Haraway and Baudrillard to summarize the points of connection and difference between these two theorists. Both contribute significantly to an understanding of the posthuman figuration as a product of simulation culture that exceeds signification.

I believe Haraway's critique of the natural (discussed earlier in this chapter) is complementary to Baudrillard's notion of simulation, when considering texts such as *Protein Lattice* and the HGP

website. For both Baudrillard and Haraway, the system in which the status of the subject is reformulated belongs to the interfaces and interconnections of technological interaction. This rearticulation of the organism blurs the boundaries between virtual and real, exposing the paradox of scientific fact grounded upon non-origins. Juxtaposing these two theorists does not serve to imply that Baudrillard's strategy is more productive for an understanding of the posthuman figuration than Haraway's. Rather, the connections between Baudrillard and feminist engagements with science and culture are emphasized as a way of further promoting a dialogue between the two.

Haraway and Baudrillard share a commitment to reassessing the status of the natural, origins and the real as they are legitimated by processes of signification based in dualistic thought. Each theorist contests a model of binary difference that has informed and limited an understanding of representation. Both theorize difference in terms of degrees. For Haraway, difference is disturbed by challenging the definitions and boundaries structured by binary thought. She maintains a definitive semiotic relation between the production and circulation of signs, and their location in material reality. In Baudrillard's writings, the challenge to ontological presuppositions depends upon a free play of meaning beyond signification that interrogates notions of the real.

The most significant distinction to be made between Haraway and Baudrillard's understandings of science and culture is located at the site of 'material-semiotic practice'. A term invented and deployed by Haraway, 'material-semiotic practice' is a way of configuring the world associated with the collapse of the material and the metaphorical, and the reassertion of boundaries through which science is understood. For example, Haraway's transgenic mice 'inhabit an unfixed but not infinite material-semiotic field where possible lives are at stake' (Haraway 1997: 119). In making this claim, Haraway reiterates the need to recognize the relation between the material and the cultural, reality and its representation. The free play of signification that Baudrillard endorses is only partly acknowledged by Haraway, for whom materiality operates as a limit point to making sense of the world.

Both theorists acknowledge the shift in contemporary social operations from an industrial age typified by consumption and production to an emerging order of digitality, media and information. As those familiar with Haraway's writing would know, this shift is what she terms an 'informatics of domination' (1985: 80), in later works theorized as the 'New World Order,

Inc.' (1997: 6-7). In the process of defining this new order of information culture, Haraway establishes a list to indicate the transitions from industrial to information society. And while she names simulation as the mode of figuring reality that replaces representation, Haraway fails to engage with the complexities of Baudrillard's argument for simulation as a new organizing principle of society. In another context, Haraway claims that a 'higher order structure' such as the genome 'is a figure of the "already written" future' (1997: 100). This echoes clearly Baudrillard's third order of the simulacra, in which the precession of the model already determines the mapping of the genome. Thus while Haraway is willing to deploy Baudrillardian concepts such as obsolescence, inertia, surface and simulation in her definition of a new cultural moment (1985: 80), she resists engaging with such terms as they are deployed by Baudrillard to contest the ontological grounding of traditional value systems. Instead, Haraway maintains a notion of the political located within the material and ideological.

Instead of interpreting the genome as a simulation devoid of signifying power, Haraway asserts that figurations such as the transgenic Oncomouse and genome map signify a construction of biotechnology located at the intersections of materiality, cultural fiction, biology and politics. Indeed the strength of her argument resides in her recognition of the complex tensions between these domains, and the collapse of the distinctions between nature and culture, science and society, materiality and representation that define and determine the workings of culture. By upholding the primacy of signifying practice when reading and interpreting the products of science, Haraway fails to consider what constitutes reality, or how it might be understood within a context of simulation culture (a context she comfortably and uncritically adopts).

As the discourses of biotechnology and information technology reshape our understandings of what it means to be human, feminists are forced to critically consider the implications of representational practice that redefines the status of the body. For Haraway, there is always an embodied reality situated with a material context, despite her recognition of the numerous connections, affiliates and hybrid associations between the technological and the natural that usurp the fixity of such categories. Hers is a socialist feminism underpinned by an assumed relation between the image and the real, where representations shape meaning and make realities. These realities are located within, and impact upon, the social, political and cultural frameworks in which they circulate. In this regard, Haraway differs significantly from the position Baudrillard upholds with regard to representation and the body.

Baudrillard's writings and Piccinini's images call into question the structural equation between reality and representation that informs the practices of reading and analyzing the products of scientific discourses. Representations of technoscience are traditionally interpreted as actively participating in the construction of reality, as well as functioning as a mirror or reflection of the real. I argue that this approach maintains a relationship between representation and the real. Baudrillard and Piccinini contest the possibility of constructing an equivalence between the image and reality, as it is these very terms which can no longer be upheld in a system of signs that ensures the image has no definitive meaning.

By tapping into the confused cultural space of simulation, Piccinini offers us a site of ambiguity, a transitional place where established dichotomies are no longer sustainable. I argue that the potency of Piccinini's posthuman figurations for feminist thinking lies in an engagement with contemporary simulation culture that functions to create new understandings and possibilities for what a subject might be in techno-culture. This is achieved by a digital practice that challenges limits and boundaries such as those of the species divide, as well as of signifying practice.

Conclusion

In *Transformations: Feminism and the Posthuman*, I have pursued the themes of techno-subject relations and simulation culture to advocate a new approach to questions of subjectivity in the context of twenty-first century technologies. Through the analysis of a selection of visual texts, I have explored the ways in which posthuman figurations encourage new imaginings for the subject, imaginings that move beyond ontological configurations of identity and difference. I have resisted a formulation of subjectivity couched in terms of origins, essentialisms or the natural body, in favor of transformations that circumvent an economy of dialectics. Baudrillard's theory of simulation based upon non-origins has provided the framework through which to consider subjectivity at the collapse of the sign/origin relationship. Simulation culture, Baudrillard argues, is fleeting, indeterminate, and never grounded in a real.

One of the central concerns arising from the study of the popular is the ephemeral nature of cultural texts and trends. Since this study began, Marilyn Manson's monstrous posthuman appeal has been superseded by the likes of Eminem and Slipknot in the affections of many young consumers. The novelty of TDK's advertising campaign has faded in a culture of consumption where there is always something new to buy and a different way of selling it. Even the concerns of Piccinini's *Protein Lattice* have 'evolved' along with new directions in biotechnology research. Her most recent project, a series of three-dimensional biomorphic sculptures, considers the potential products of stem cell applications. Titled *Still Life with Stem Cells* (2002), it speaks to the latest, sexiest and most marketable trends in technology.

Despite the high turnover of signs and images in a world of hyper-consumerism, an understanding of our engagements with popular cultural artifacts need not take the form of rampant consumption followed by the sheepish rejection of a dying trend. Neither does an analysis of popular forms need to be grounded in something more substantial, as a way of ensuring the longevity of such phenomena and legitimating their value. Dick Hebdige has described the process of textual engagement as an attempt to 'walk the flickering line between images and things but not, I'd like to think, just any old images, any old things — choosing rather those images which burn for me, those things that I think really matter' (1988: 12). These cultural moments become part of an inter-textual circuit, the circulation of signifiers that exist and derive value in relation to each other. This is the sign system of the simulation order that

Baudrillard speaks of when he denounces the reference to forms, causes and origins in favor of the recurrent circulation of signs against each other.

At the start of this thesis, I raised the issue of reality in feminist narratives of the posthuman in order to ask 'how might re-thinking the relationship between reality and image function as a strategically useful tactic for feminist engagements with posthuman representations?' By questioning the status of the real within feminist scholarship on the posthuman, I sought to offer new ways of engaging with representations of the posthuman that move beyond identity toward alternative formulations of the subject. En route to answering that question, I critically reviewed the feminist debates regarding the relationship between women and technology.

Feminist critiques of technology revealed the associations between masculinity and technology that perpetuate men's domination over women. In response to the notion that women and technology are incompatible, many contemporary theorists have critically considered the affirmations and pleasures to be experienced from an alliance of the technological and the feminine. I, however, chose to circumvent debates that approached technology as either 'good' or 'bad' for women. Instead, I established the proposition that alternative modes of understanding the relationship between women and technology were required to account for the ambiguity of the posthuman figuration. Charting the feminist discourses of technology allowed for an exploration of the limits of the body, and in turn, an examination of the potential to generate new imaginings beyond the boundaries of embodied enactments.

As indicated by Sherry Turkle's study of computer culture, engagements with technologies promote alternative means of thinking about the self. Yet I argued that within Turkle's scholarship, a distinction remains between what is technological and what is human. In such accounts, the status of the real contra the virtual, the self versus the Other, remains intact. How then, can representation operate to open-up, rather than legitimate, the meanings ascribed to the techno-human relationship? The substantive body of feminist critique on the subject and technology motivated me to develop a reading of the posthuman that focused beyond signification and outside of the limits of the body.

Chapter Two established Jean Baudrillard's theory of simulation as the conceptual framework through which to consider the circulation of posthuman images. It was within the representational economy of simulation culture that I located posthuman figurations as exceeding

signification. That chapter argued for the generation of alternative understandings of the relationship between bodies, technology and representation through the collapse of the association between an image and its referent. The collapse of origin-derived meaning has been a key theme throughout *Transformations*. If, as I have argued, new forms of the visual demand an alternative understanding of the real, then the possibility arises to think about the subject beyond a system of dialectics. By putting an end to stable oppositions, simulation has afforded the generation of multiple meanings and diverse subject formulations not confined to the rule of opposites. Accordingly, the idea that an original underpins our understanding of images, the body, or subjectivity, is disturbed.

Working through a theory of simulation provides a platform on which to re-engage with the question of popular representation from a feminist perspective. Charting the debates on representation, from 1970s feminist film aesthetics through post-structural critiques of ideology, has indicated a diversity of responses from feminist thought. Contemporary feminist engagements with media and images are seen to share with Baudrillard's theory of simulation a commitment to interpreting images in different ways. To perceive practices of representation as offering more than ideology effects allows for reconsideration of how images circulate, and the modes by which they are negotiated. In my contribution to the debate, approaching posthuman figurations in terms of the operations of the image within a culture of simulation affords an alternative understanding of subjectivity as transformative.

I worked to refigure the subject as transformative through an analysis of Barbie. Chapter Three developed the themes of plasticity and play to explore the possibilities Barbie might hold for new formulations of selfhood. By revisiting such an established icon of ideal femininity, I sought to challenge the equation of Barbie with real womanhood. By examining the historical association between the mannequin and contemporary understandings of Barbie, I highlighted the deep-rooted associations between femininity, consumption and the body. Locating Barbie within this trajectory provided a point from which to re-think this long-standing approach to the commodification of femininity.

In place of a reading of Barbie as a fixed ideal of femininity, I positioned her as a transformer. In Barbie's plastic body, transformation becomes a contamination of forms; a disavowal of identity through the disruption of stable compositions such as self and Other, subject and object. This process of transformation allows a place for the subject that is neither a practice of resistance to,

nor an association with, cultural artifacts such as Barbie. When Debora Battaglia writes of the difficulty of representing 'the nonsteady state of selfhood in different cultural situations, and varying degrees and relations of determinacy', she highlights the importance of new modes of theorizing the self where the distinction between things collapse and take on new forms (1995: 1).

This collapse is most apparent, I argued, at the site of the body as 'cultural plastic'. Our engagements with technology in everyday life challenge the perception of the body as the limit point of subjectivity. Certain feminist critiques of plastic surgery, fitness clubs and anti-aging products stress the role of such cultural practices as devices that perpetuate the subordination of women. I suggest that positioning women as victims of male power-effects restricts the ways in which subjectivities can be envisioned through a range of possible modalities of the body. Posing the plastic body as a transformative potentiality allows us to move beyond the determinism of a materialist feminist 'return to the body'.

Chapter Four considered the question of difference in posthuman representations, through an interrogation of feminist reclamations of the monstrous. Marilyn Manson's *Mechanical Animals* CD cover-art provided the site of this inquiry. I understand the posthuman, like the monster, to be a boundary figure. An exploration of feminist engagements with the monstrous provided a model through which to establish the continuities and discontinuities between posthuman figurations and images of the monster. By way of such comparison, the limits of feminist theorizations of the monstrous as a mode of interpreting posthuman figurations were exposed. Posthuman figurations were found to differ from their predecessors by residing within a digital economy of representation that disrupts the organic potency of the monster figuration as described by feminism. Theorizing Manson in terms of Baudrillard's writings on catastrophe, I offered a reading of the posthuman that afforded new imaginings of the subject that reside beyond the fixity of signifying practice. Manson shares with Barbie a play of form; a tension precipitated by a plasticity that avoids rupture.

From a space of tension between the real and the image, *Transformations* worked to articulate subjecthood in terms of a difference that exceeds binary dualisms. It is at this site of ambiguity that posthuman figurations such as Manson exceed their role as signifiers. The collapse between image and reality was shown to offer new possibilities for understanding biotechnological myths informed by contemporary cultural conditions within a post-structuralist framework. Contrasting Barthes' structural analysis of myth to Baudrillard's order of the sign provided a means through

which to engage with the question of difference as it is negotiated by representations of the posthuman. Moreover, it illuminated the difficulty of sustaining a theory of myth as the naturalization of culture in terms of ideology and semiotics. While Barthes' analysis of myth exists within a pre-determined regime of signs to position the viewing subject, posthuman figurations operate within an order of simulation where the image circulates in a regime of signs with no relation to the real. By existing outside of a signifying circuit dependent upon values and meaning, Manson creates a condition of possibility for theorizing the subject outside of binary thought.

Chapter Five argued that posthuman figurations could offer a way of approaching the question of the subject in the accelerated flows of media and communications as an interface. The emphasis upon speed and instantaneous response found in narratives of digital technologies is perceived by Paul Virilio to radically alter traditional perceptions of temporality. This fragmentation of linear time is what Frederic Jameson has referred to as the 'schizophrenic disjuncture' of postmodern experience (1991: 27). Within this context, I again pursued the idea of transformation to reconfigure the operations of subjectivity in the digital age, and its implications upon the body. I examined the position of the subject in the media as described by Baudrillard. I suggested that Baudrillard's theory of the subject in communications networks functions to refigure conventional understandings of the subject as either an active or passive respondent in the act of information exchange. By arguing for an articulation of the body as interface, I pursued a strategy by which women might engage with images of the posthuman beyond the spectres of identification politics. Conceiving of the body as an interface system offers an alternative to conceptualizing the virtual and the real as oppositional terms, therefore altering the status of the subject.

In the final chapter, I returned to the theme of the dissolution of the natural in order to consider images of the posthuman in the context of gene discourse. Until this point, posthuman reworkings of the limits of the subject were assessed throughout *Transformations* in terms of an extension of the body. Posthuman qualities of plasticity, catastrophic acceleration and interfacing challenge particular understandings of corporeal identity, and move them beyond the fixity of bodily boundaries. An exploration of genome narratives demands recognition of the cultural trend toward the miniaturization of the body and reduction of subjecthood to the level of the cell and the gene. A critique of the Human Genome Project website showed how such inversions of

the body operate and what the implications of such reformulations are upon notions of identity and difference.

Feminist critiques of science have established a framework through which to approach the nexus of scientific knowledge production, representational practice and subject formation. While recognizing the importance of such critiques, I argued for something more than a structuralist assertion that textual manifestations of gene narratives legitimate power relations. What we see in images such as *Protein Lattice* is a slippage between a scientific, empiricist project grounded in an objective world-view and a simulation culture that disowns origins. By occupying the site between the sign and origin, between nature and technology, *Protein Lattice* disrupts a myth of origins, which science strives to uphold.

Throughout this thesis, I have stressed the benefits that may arise from greater dialogue between feminist thought and the theories of Jean Baudrillard. Chapter Six concluded by exploring the points of affiliation and difference between the theories of Donna Haraway and Baudrillard. Baudrillard offers feminist engagements with the techno-human relationship a way of conceptualizing social relations beyond binary dualisms. His understandings of the order of the image serve as an incisive tool for feminist analyses of the postmodern culture of mass media, communications and information technologies. By contesting the categorical distinctions between the real and illusion, self and Other, origin and sign, Baudrillard effectively denies the possibility of origins, realities or essentialisms in the formulation of meaning. In problematizing the notions of identity, reality and the body in a culture of simulation, *Transformations* has evaluated how such displacements may be understood. It has also envisioned what new possibilities for theorizing the subject may emerge at sites of ongoing boundary play, such as the posthuman.

Bibliography

*date of original publication noted at end of reference where applicable

Adorno, Theodor and Horkheimer, Max. (1973). 'The Culture Industry: Enlightenment as Mass Deception', In Theodor Adorno and Max Horkheimer, *Dialectic of Enlightenment*, (John Cumming, Trans.), London: Allen Lane, 120-167. (1944).

Althusser, Louis. (1984). 'Ideology and Ideological State Apparatuses (Notes Towards an Investigation)', In Louis Althusser, *Essays on Ideology*, London: Verso, 1-60. (1970).

Ang, Ien. (1985). *Watching Dallas: Soap Opera and the Melodramatic Imagination*, (Della Couling, Trans.), London and New York: Methuen.

Ansell-Pearson, Keith. (1997). *Viroid Life: Perspectives on Nietzsche and the Transhuman Condition*, London and New York: Routledge.

Appadurai, Arjun. (1990). 'Disjuncture and Difference in the Global Cultural Economy', In Mike Featherstone (Ed.), *Global Culture: Nationalism, Globalisation and Modernity*, London: Sage, 295-310.

Arditti, Rita; Duelli Klein, Reante; and Minden, Shelly. (Eds.). (1984). *Test Tube Women: What Future for Motherhood?*, London: Pandora Press.

Attfield, Judy. (1996). 'Barbie and Action Man: Adult Toys for Girls and Boys, 1959-93', In Pat Kirkham (Ed.), *The Gendered Object*, Manchester and New York: Manchester University Press, 79-89.

Badmington, Neil. (Ed.). (2000). *Posthumanism*, New York: Palgrave.

Balsamo, Anne. (1995). 'Forms of Technological Embodiment: Reading the Body in Contemporary Culture', In Mike Featherstone and Roger Burrows (Eds.), *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, London: Sage, 215-237.

Balsamo, Anne. (1996). *Technologies of the Gendered Body: Reading Cyborg Women*, Durham and London: Duke University Press.

Barthes, Roland. (1973). *Mythologies*, (Annette Lavers, Trans.), London: Paladin. (1957).

Barthes, Roland. (1974). *S/Z*, (Richard Miller, Trans.), New York: Hill and Wang.

Barthes, Roland. (1977). 'The Death of the Author', In Roland Barthes, *Image, Music, Text*, (Stephen Heath, Trans.), London: Fontana, 142-148.

Barthes, Roland. (2000). *Camera Lucida*, (Richard Howard, Trans.), London: Vintage. (1980).

- Bartram, Michael. (1985). *The Pre-Raphaelite Camera: Aspects of Victorian Photography*, London: Weidenfeld and Nicolson.
- Batchen Geoffrey. (1996). 'Spectres of Cyberspace', *Artlink* 16(2&3), 25-29.
- Battaglia, Debora (Ed.). (1995). *Rhetorics of Self-Making*, Berkely, Los Angeles, London: University of California Press.
- Baudelaire, Charles. (1964). *The Painter of Modern Life and Other Essays*, (Johnathan Mayne, Trans. and Ed.), London: Phaidon. (1863).
- Baudrillard, Jean. (1981). *For a Critique of the Political Economy of the Sign*, (Charles Levin, Trans.), St Louis, Mo: Telos Press.
- Baudrillard, Jean. (1983). 'The Ecstasy of Communication', In Hal Foster (Ed.), *The Anti-Aesthetic: Essays in Postmodern Culture*, Seattle: Bay Press, 126-134.
- Baudrillard, Jean. (1986). 'The Year 2000 will not Take Place', In E.A Grosz, Terry Threadgold, David Kelly, Alan Cholodenko and Edward Colless (Eds.), *FUTUR*FALL: Excursions into Post-Modernity*, Sydney: Power Institute, 18-28.
- Baudrillard, Jean. (1988a). *America*, (Chris Turner, Trans.), London and New York: Verso. (1986).
- Baudrillard, Jean. (1988b). 'Interview with Jean Baudrillard', *Block 14, Special Issue: The Work of Art in the Electronic Age*, 8-10.
- Baudrillard, Jean. (1990a). *Seduction*, (Brian Singer, Trans.), Basingstoke: Macmillan. (1979).
- Baudrillard, Jean. (1990b). *Fatal Strategies*, (Phillip Beitchman and W.G.J Niesluchowski, Trans.), New York and London: Semiotext(e)/Pluto. (1983).
- Baudrillard, Jean. (1993). *Symbolic Exchange and Death*, (Iain Hamilton Grant, Trans.), London: Sage. (1976).
- Baudrillard, Jean. (1994). *Simulacra and Simulation*, (Sheila Faria Glaser, Trans.), Michigan: University of Michigan Press. (1981).
- Baudrillard, Jean. (1995). 'The Virtual Illusion: Or the Automatic Writing of the World', *Theory, Culture and Society* 12(4), 97-107.
- Baudrillard, Jean. (1998a). *The Consumer Society: Myths and Structures*, London, Thousand Oaks, New Delhi: Sage. (1970).
- Baudrillard, Jean. (1998b). *Paroxysm: Interviews with Philippe Petit*, (Chris Turner, Trans.), London and New York: Verso. (1997).
- Baudrillard, Jean. (1999). *The Transparency of Evil: Essays on Extreme Phenomena*, (James Benedict, Trans.), London and New York: Verso. (1990).

Baudrillard, Jean. (2000). *The Vital Illusion*, Julia Witwer (Ed.), New York: Colombia University Press.

Belton, R.J. (1995). *The Beribboned Bomb: The Image of Woman in Male Surrealist Art*, Calgary: University of Calgary Press.

Benjamin, Walter. (1968a). 'On Some Motifs in Baudelaire', In Walter Benjamin, *Illuminations*, (Harry Zohn, Trans.), New York: Harcourt, Brace and World. (1955).

Benjamin, Walter. (1968b). 'The Work of Art in the Age of Mechanical Reproduction', In Walter Benjamin, *Illuminations*, (Harry Zohn, Trans.), New York: Harcourt, Brace and World, 219-253. (1955).

Berman, Marshall. (1982). *All That is Solid Melts into Air: The Experience of Modernity*, New York: Simon and Schuster.

Bodmer, Walter and McKie, Robin. (1994). *The Book of Man: The Quest to Discover Our Genetic Heritage*, London: Little, Brown and Company.

Bordo, Susan. (1991). '“Material Girl”: The Effacements of Postmodern Culture', In Laurence Goldstein (Ed.), *The Female Body: Figures, Styles, Speculations*, U.S.A: University of Michigan Press, 106-130.

Braidotti, Rosi. (1991). *Patterns of Dissonance: A Study of Women in Contemporary Philosophy*, (Elizabeth Guild, Trans.), New York and London: Routledge.

Braidotti, Rosi. (1994a). *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory*, New York: Columbia University Press.

Braidotti, Rosi. (1994b). 'Toward a New Nomadism: Feminist Deleuzian Tracks; or, Metaphysics and Metabolism', In Constantin V. Boundas and Dorothea Olkowski (Eds.), *Gilles Deleuze and the Theater of Philosophy*, New York and London: Routledge, 159-186.

Braidotti, Rosi. (1996). 'Signs of Wonder and Traces of Doubt: On Teratology and Embodied Differences', In Nina Lykke and Rosi Braidotti (Eds.), *Between Monsters, Goddesses and Cyborgs: Feminist Confrontations with Science, Medicine and Cyberspace*, London and New Jersey: Zed Books, 135-152.

Braidotti, Rosi. (2000). 'Teratologies', In Ian Buchanan and Claire Colebrook (Eds.), *Deleuze and Feminist Theory*, Edinburgh: Edinburgh University Press, 156-172.

Buchanan, Ian and Colebrook, Claire (Eds.). (2000). *Deleuze and Feminist Theory*, Edinburgh: Edinburgh University Press.

Buck-Morss, Susan. (1986). 'The Flaneur, The Sandwichman, and the Whore: The Politics of Loitering', *New German Critique* 39 Fall, 99-140.

Butler, Judith. (1990). *Gender Trouble: Feminism and the Subversion of Identity*, New York and London: Routledge.

- Butler, Judith. (1993). *Bodies that Matter: On the Discursive Limits of "Sex"*, New York and London: Routledge.
- Carter, J.Scott. (1995). *How Surfaces Intersect in Space: An Introduction to Topology* (2nd Edn.). Singapore, New Jersey, London, Hong Kong: World Scientific.
- Caws, M.A; Kuenzli, R.E; Raaberg, G (Eds.). (1991). *Surrealism and Women*, Cambridge, Massachusetts: MIT Press.
- Cixous, Helene. (1980). 'Sorties', In Elaine Marks and Isabelle De Courtivron (Eds.), *New French Feminisms: An Anthology*, Amherst: University of Massachusetts Press, 90-98.
- Cockburn, Cynthia. (1985). *Machinery of Dominance: Women, Men, and Technical Know-How*, London, Dover, New Hampshire: Pluto Press.
- Cockburn, Cynthia. (1991). *Brothers: Male Dominance and Technological Change*, London: Pluto Press. (1983).
- Cohen, Jeffrey Jerome. (1996a). 'Preface: In a Time of Monsters', In Jeffrey Jerome Cohen (Ed.), *Monster Theory: Reading Culture*, Minneapolis and London: University of Minnesota Press, vii-xiii.
- Cohen, Jeffrey Jerome. (1996b). 'Monster Culture (Seven Theses)', In Jeffrey Jerome Cohen (Ed.), *Monster Theory: Reading Culture*, Minneapolis and London: University of Minnesota Press, 3-25.
- Conley, Verena Andermatt (Ed.). (1993). *Rethinking Technologies*, Minneapolis and London: University of Minnesota Press.
- Connor, Steve. (1997). *Postmodernist Culture: An Introduction to Theories of the Contemporary* (3rd Edn.). London: Blackwell.
- Cooper, Necia Gram (Ed.). (1994). *The Human Genome Project: Deciphering the Blueprint of Heredity*, California: University Science Books.
- Crary, Johnathan. (1992). *Techniques of the Observer: On Vision and Modernity in The Nineteenth Century*, Cambridge, Massachusetts, London, England: MIT Press.
- Creed, Barbara. (1987). 'Feminist Film Theory: Reading the Text', In Annette Blonski, Barbara Creed and Freda Freiberg (Eds.), *Don't Shoot Darling! Women's Independent Filmmaking in Australia*, Richmond, Victoria: Greenhouse, 280-313.
- Creed, Barbara. (1993). *The Monstrous Feminine: Film, Feminism, Psychoanalysis*, London and New York: Routledge.
- Cubitt, Sean. (2001). *Sinulation and Social Theory*, London, Thousand Oaks, New Delhi: Sage.
- Dawkins, Richard. (1976). *The Selfish Gene*, Oxford: Oxford University Press.
- De Lauretis, Teresa. (1987). *Technologies of Gender: Essays on Theory, Film and Fiction*, Bloomington and Indianapolis: Indiana University Press.

- De Lauretis, Teresa. (1994). *Practices of Love: Lesbian Sexuality and Perverse Desire*, Bloomington and Indianapolis: Indiana University Press.
- de Saussure, Ferdinand. (1959). *Course in General Linguistics*, (Wade Baskin, Trans.), London: Peter Owen.
- Deleuze, Gilles and Guattari, Felix. (1988). *A Thousand Plateaus: Capitalism and Schizophrenia*, London: Athlone Press. (1980).
- Diamond, Elin. (1997). *Unmaking Mimesis: Essays on Feminism and Theatre*, New York and London: Routledge.
- Diprose, Rosalyn. (1995). 'A "Genethics" that Makes Sense', In Vandana Shiva and Ingunn Moser (Eds.), *Biopolitics: A Feminist and Ecological Reader on Biotechnology*, London and New Jersey: Zed Books, 162-174.
- Doane, Mary Ann. (1990). 'Technophilia: Technology, Representation, and the Feminine', In Mary Jacobus, Evelyn Fox Keller and Sally Shuttleworth (Eds.), *Body/Politics: Women and the Discourses of Science*, New York and London: Routledge, 163-176.
- Doane, Mary Anne. (1993). 'Technology's Body: Cinematic Vision in Modernity', *Differences* 5(2), 1-23.
- Dolan, Jill. (1998). 'The Discourse of Feminisms: The Spectator and Representation', In Lizbeth Goodman and Jane de Gay (Eds.), *The Routledge Reader in Gender and Performance*, New York and London: Routledge, 288-294.
- Doyle, Richard. (1997). *On Beyond Living: Rhetorical Transformations of the Life Sciences*, Stanford, California: Stanford University Press.
- Dreyfus, Hubert L. (1993). 'Heidegger on the Connection Between Nihilism, Art, Technology, and Politics', In Charles Guignon (Ed.), *The Cambridge Companion to Heidegger*, Cambridge: Cambridge University Press, 289-316.
- du Cille, Ann. (1995). 'Dyes and Dolls: Multicultural Barbie and the Merchandizing of Difference', In Jessica Munns and Gita Rajan (Eds.), *A Cultural Studies Reader: History, Theory, Practice*, London and New York: Longman, 550-567.
- Dworkin, Andrea. (1981). *Pornography: Men Possessing Women*, London: Women's Press.
- Farnell, Ross. (1999). 'In Dialogue with "Posthuman Bodies": Interview with Stelarc', *Body and Society* 5(2-3), 129-147.
- Feenberg, Andrew. (1991). *Critical Theory of Technology*, New York and Oxford: Oxford University Press.
- Fenichell, Stephen. (1996). *Plastic: The Making of a Synthetic Century*, New York: Harper Collins.

- Finkelstein, H.N. (1979). *Surrealism and the Crisis of the Object*, Michigan: University Microfilms International.
- Fiske, John. (1987). *Television Culture*, New York and London: Routledge.
- Flynn, Bernadette. (1994). 'VNS Matrix and Virginia Barratt', *Continuum* 8(1), 419-431.
- Foster, Hal. (1991). 'Amour Fou', *October* 56 Spring, 64-97.
- Foster, Hal. (1993). *Compulsive Beauty*, Cambridge, Massachusetts, London, England: MIT Press.
- Foucault, Michel. (1977). *Discipline and Punish: The Birth of the Prison*, London: Penguin.
- Foucault, Michel. (1980). *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977*, New York: Pantheon.
- Foucault, Michel. (1984a). 'Nietzsche, Genealogy, History', In Paul Rabinow (Ed.), *The Foucault Reader*, London: Penguin, 76-100.
- Foucault, Michel. (1984b). 'What is Enlightenment?', In Paul Rabinow (Ed.), *The Foucault Reader*, London: Penguin, 32-50.
- Foucault, Michel. (1984c). 'The Subject and Power', In Brian Wallis (Ed.), *Art After Modernism: Rethinking Representation*, New York: New Museum of Contemporary Art, 417-433.
- Fox Keller, Evelyn. (1995a). *Refiguring Life: Metaphors of Twentieth Century Biology*, Columbia: Columbia University Press.
- Fox Keller, Evelyn. (1995b). 'Fractured Images of Science, Language and Power: A Post-Modern Optic, or Just Bad Eyesight?', In Vandana Shiva and Ingunn Moser (Eds.), *Biopolitics: A Feminist and Ecological Reader on Biotechnology*, London and New Jersey: Zed Books, 52-67.
- Freud, Sigmund. (1955a) *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, (James Strachey, Trans.), London: Hogarth.
- Freud, Sigmund. (1955b). 'The "Uncanny"', In Sigmund Freud, *The Standard Edition of the Complete Psychological Works of Sigmund Freud (vol XVII An Infantile Neurosis and Other Works)*, (James Strachey, Trans.), London: Hogarth, 219-256.
- Freud, Sigmund. (1969). *Civilization and Its Discontents*, (Joan Riviere, Trans.), London: Hogarth.
- Friedberg, Anne. (1993). *Window Shopping: Cinema and the Postmodern*, Berkeley, Los Angeles, Oxford: University of California Press.
- Fukuyama, Francis. (2002). *Our Posthuman Future: Consequences of the Biotechnology Revolution*, New York: Farrar, Straus and Giroux.
- Gaines, Jane and Herzog, Charlotte (Eds.). (1990). *Fabrications: Costume and the Female Body*, New York and London: Routledge.

- Gallop, Jane. (1987). 'French Theory and the Seduction of Feminism', In Alice Jardine and Paul Smith (Eds.), *Men in Feminism*, New York and London: Methuen, 111-115.
- Gamble, Sarah. (Ed.). (1999). *The Routledge Critical Dictionary of Feminism and Postfeminism*, New York and London: Routledge.
- Gane, Mike. (1991a). *Baudrillard's Bestiary: Baudrillard and Culture*, New York and London: Routledge.
- Gane, Mike. (1991b). *Baudrillard: Critical and Fatal Theory*, London and New York: Routledge.
- Gane, Mike (Ed.). (1993). *Baudrillard Live: Selected Interviews*, New York and London: Routledge.
- Gates, Bill. (1995). *The Road Ahead*, New York and London: Viking Penguin.
- geekgirl. Retrieved 7 July 2002 at <http://www.geekgirl.com.au/>
- Gersheim, Helmut. (1965). *A Concise History of Photography*, London: Thames and Hudson.
- Giroux, Henry A. (1994). 'Consuming Social Change: The "United Colors of Benetton"', *Cultural Critique* 26 Winter, 5-32.
- Gledhill, Christine. (1984). 'Developments in Feminist Film Criticism', In Mary Ann Doane, Patricia Mellencamp and Linda Williams (Eds.), *Re-Vision: Essays in Feminist Film Criticism*, Maryland: University Publications of America, 18-47.
- Goshorn, Keith A. (1994). 'Valorizing "the Feminine" while Rejecting Feminism? — Baudrillard's Feminist Provocations', In Douglas Kellner (Ed.), *Baudrillard: A Critical Reader*, Oxford UK and Cambridge USA: Blackwell, 256-291.
- Grace, Victoria. (2000). *Baudrillard's Challenge: A Feminist Reading*, London and New York: Routledge.
- Graham, Elaine L. (2002). *Representations of the post/human: Monsters, Aliens and Others in Popular Culture*, Manchester: Manchester University Press.
- Griggers, Camilla. (1997). *Becoming-Woman*, Minneapolis: University of Minnesota Press.
- Grint, Keith and Gill, Rosalind (Eds.). (1995). *The Gender-Technology Relation: Contemporary Theory and Research*, London: Taylor and Francis.
- Gronberg, Tag. (1997). 'Beware Beautiful Women: The 1920s Shopwindow Mannequin and a Physiognomy of Effacement', *Art History* 20(3), 375-396.
- Grosz, Elizabeth. (1987). 'Notes Toward a Corporeal Feminism', *Australian Feminist Studies* 5, 1-15.

- Grosz, Elizabeth and de Lepervanche, Marie. (1988). 'Feminism and Science', In Barbara Caine, E.A Grosz and Marie de Lepervanche (Eds.), *Crossing Boundaries: Feminism and the Critique of Knowledge*, Sydney: Allen and Unwin, 5-27.
- Grosz, Elizabeth. (1994). *Volatile Bodies: Towards a Corporeal Feminism*, Sydney: Allen and Unwin.
- Halberstam, Judith. (1995). *Skin Shows: Gothic Horror and the Technology of Monsters*, Durham and London: Duke University Press.
- Halberstam, Judith and Livingstone, Ira. (Eds.). (1995). *Posthuman Bodies*, Bloomington and Indianapolis: Indiana University Press.
- Hall, Stuart. (1995). 'The Whites of Their Eyes: Racist Ideologies and the Media', In Gail Dines and Jean M. Humez (Eds.), *Gender, Race and Class in Media*, California: Sage, 18-22.
- Hall, Stuart. (1996). 'Signification, Representation, Ideology: Althusser and the Post-Structuralist Debates', In James Curran, David Morley and Valerie Walkerdine (Eds.), *Cultural Studies and Communications*, London: Arnold, 11-34.
- Haraway, Donna J. (1985). 'A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s', *Socialist Review* 15(2), 65-107.
- Haraway, Donna J. (1989). *Primate Visions: Gender, Race and Nature in the World of Modern Science*, New York and London: Routledge.
- Haraway, Donna J. (1991). *Simians, Cyborgs and Women: The Reinvention of Nature*, New York and London: Routledge.
- Haraway, Donna J. (1992). 'The Promise of Monsters: A Regenerative Politics for Inappropriate/d Others', In Lawrence Grossberg, Cary Nelson and Paula A. Treichler (Eds.), *Cultural Studies*, New York and London: Routledge, 295-329.
- Haraway, Donna J. (1995). 'Otherworldly Conversations, Terran Topics, Local Terms', In Vandana Shiva and Ingunn Moser (Eds.), *Biopolitics: A Feminist Ecological Reader on Biotechnology*, London and New Jersey: Zed Books, 69-93.
- Haraway, Donna J. (1997). *Modest_Witness@Second_Millennium.FemaleMan@Meets_Oncomouse™: Feminism and Technoscience*, New York and London: Routledge.
- Haraway, Donna J. (2000). *How Like A Leaf. Donna J. Haraway: An Interview with Thyrza Nichols Goodeve*, New York and London: Routledge.
- Harding, Sandra. (1986). *The Science Question in Feminism*, Ithaca and London: Cornell University Press.
- Hartouni, Valerie. (1997). *Cultural Conceptions: On Reproductive Technologies and the Remaking of Life*, Minneapolis and London: University of Minnesota Press.

- Hartsock, Nancy. (1990). 'Foucault on Power: A Theory for Women?', In Linda J. Nicholson (Ed.), *Feminism/Postmodernism*, New York and London: Routledge, 157-175.
- Hassan, Ihab. (1977). 'Prometheus as Performer: Toward a Posthumanist Culture?', In Michael Benamon and Charles Caramella (Eds.), *Performance in Postmodern Culture*, Milwaukee: Centre for Twentieth Century Studies, University of Wisconsin-Milwaukee, 201-217.
- Hassan, Ihab. (1993). 'Toward A Concept of Postmodernism', In Terry Docherty (Ed.), *Postmodernism: A Reader*, New York: Columbia University Press, 146-156.
- Hawthorne, Susan. (1999). 'Cyborgs, Virtual Bodies and Organic Bodies: Theoretical Feminist Responses', In Susan Hawthorne and Renate Klein (Eds.), *Cyberfeminism: Connectivity, Critique and Creativity*, Melbourne: Spinifex, 213-249.
- Hayles, N.Katherine. (1999). *How we Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*, Chicago and London: University of Chicago Press.
- Heath, Stephen. (1981). *Questions of Cinema*, London and Basingstoke: Macmillan Press.
- Hebdige, Dick. (1979). *Subculture: The Meaning of Style*, London and New York: Methuen.
- Hebdige, Dick. (1988). *Hiding in the Light: On Images and Things*, London and New York: Routledge.
- Heidegger, Martin. (1977). 'The Question Concerning Technology', In David Farnell Krell (Ed.), *Martin Heidegger: Basic Writings*, New York: Harper and Row, 287-317.
- Hennessey, Peter. (1999). 'Patricia Piccinini: Plastic Realist', In Blair French (Ed.), *Photo Files: An Australian Photography Reader*, Sydney: Power Publishing and Australian Centre for Photography, 247-254.
- Hood, Leroy and Kelves, Daniel J. (1992). *The Code of Codes: Scientific and Social Issues in the Human Genome Project*, Cambridge and Massachusetts: Harvard University Press.
- Hubbard, Ruth. (1990). *The Politics of Women's Biology*, New Brunswick: Rutgers University Press.
- Human Genome Project Information Website*. Retrieved 31 July 2001 at <http://www.oml.gov/hgmis/>
- Huyssen, Andreas. (1986). 'The Vamp and the Machine: Fritz Lang's "Metropolis"', In Andreas Huyssen, *After the Great Divide*, Bloomington and Indiana: Indiana University Press, 65-81.
- Jameson, Fredric. (1983). 'Postmodernism and Consumer Society', In Hal Foster (Ed.), *The Anti-Aesthetic: Essays in Postmodern Culture*, Seattle: Bay Press, 111-125.
- Jameson, Fredric. (1991). *Postmodernism, or, the Cultural Logic of Late Capitalism*, Durham: Duke University Press.

- Jardine, Alice and Feher, Michael. (1987). 'Of Bodies and Technologies: Discussion', In Hal Foster (Ed.), *Discussions in Contemporary Culture* 1, DIA Art Foundation, Seattle: Bay Press, 166-172.
- Jay, Nancy. (1991). 'Gender and Dichotomy', In Sjena Gunew (Ed.), *A Reader in Feminist Knowledge*, London and New York: Routledge, 89-106.
- Jones, Steven G. (Ed.). (1995). *Cybersociety: Computer-Mediated Communication and Community*, London: Sage.
- Kellner, Douglas. (1989). *Jean Baudrillard: From Marxism to Postmodernism and Beyond*, Cambridge: Polity.
- Kellner, Douglas. (1995). *Media Culture: Cultural Studies, Identity and Politics Between the Modern and the Postmodern*, London and New York: Routledge.
- Kelly, Mary. (1983). *Post-Partum Document*, London and Boston: Routledge and Kegan Paul.
- Kindler, Marsha. (2000). 'From Mutation to Morphing: Cultural Transformations in Greek Myth to Children's Media Culture,' In Vivian Sobchack (Ed.), *Meta Morphing: Visual Transformation and the Culture of Quick Change*, Minneapolis: University of Minnesota Press, 59-80.
- Kirby, Vicki. (1994). 'Viral Identities: Feminism and Postmodernisms', In Norma Grieve and Ailsa Burns (Eds.), *Australian Women: Contemporary Feminist Thought*, Melbourne: Oxford University Press, 120-132.
- Klein, Naomi. (2000). *No Logo*, London: Flamingo.
- Kohanski, Alexander S. (1977). *Philosophy and Technology: Towards a New Orientation in Modern Thinking*, New York: Philosophical Library.
- Krauss, Rosalind and Livingston, Jane. (1985). *L'Amour Fou: Photography and Surrealism*, New York: Abbeville.
- Kristeva, Juila. (1982). *Powers of Horror: An Essay on Abjection*, (Leon S. Roudies, Trans.), New York: Columbia University Press.
- Kroker, Arthur and Kroker, Marilouise. (1987). 'Thesis on the Disappearing Body in the Hyper-Modern Condition', In Arthur and Marilouise Kroker (Eds.), *Body Invaders: Panic Sex in America*, New York: St. Martins, 20-34.
- Kroker, Arthur and Marilouise. (1996). 'Code Warriors: Bunkering In and Dumbing Down', In Arthur and Marilouise Kroker (Eds.), *Hacking the Future: Stories for the Flesh-Eating 90s*, New York: St Martins, 75-88.
- Kuhn, Annette. (1985). *The Power of the Image: Essays on Representation and Sexuality*, London: Routledge and Kegan Paul.
- Lacan, Jaques. (1977). 'The Mirror Stage as Formative of the Function of the I as Revealed in Psychoanalytic Experience', In Jaques Lacan, *Ecrits: A Selection*, (Alan Sheridan, Trans.), London: Routledge, 1-7. (1966).

- Langton, Marcia. (1997). 'The Valley of the Dolls: Black Humour in the Art of Destiny Deacon', *Art and Australia* 35(1), 100-107.
- Lash, Scott. (2001). 'Technological Forms of Life', *Theory, Culture and Society* 18(1), 105-120.
- Lee, Thomas F. (1991). *Human Genome Project: Cracking the Genetic Code of Life*, New York: Plenum.
- Levin, Charles. (1996). *Jean Baudrillard: A Study in Cultural Metaphysics*, London and New York: Prentice Hall, Harvester Wheatsheaf.
- Lévy, Pierre. (1998). *Becoming Virtual: Reality in the Digital Age*, (Robert Bononno, Trans.), New York and London: Plenum Trade.
- Linker, Kate. (1984). 'Representation and Sexuality', In Brian Wallis (Ed.), *Art After Modernism: Rethinking Representation*, New York: New Museum of Contemporary Art, 391-415.
- Lister, Martin. (Ed.). (1995). *The Photographic Image in Digital Culture*, London and New York: Routledge.
- Lloyd, Genevieve. (1984). *The Man of Reason: 'Male' and 'Female' in Western Philosophy*, Minneapolis: University of Minnesota Press.
- Lord, M.G. (1994). *Forever Barbie: The Unauthorized Biography of a Real Doll*, New York: William Morrow.
- Lovejoy, Margot. (1997). *Postmodern Currents: Art and Artist in the Age of Electronic Media* (2nd Edn.). New Jersey: Prentice Hall.
- Lumby, Catharine. (1997). *Bad Girls: The Media, Sex and Feminism in the 90s*, Sydney: Allen and Unwin.
- Macey, David. (2000). *The Penguin Dictionary of Critical Theory*, London and New York: Penguin.
- MacKinnon, Kathrine. (1979). *The Sexual Harassment of Working Women: A Case of Sex Discrimination*, New Haven: Yale University Press.
- Manovich, Lev. (1996). 'The Automation of Sight: From Photography to Computer Vision', In Timothy Druckrey (Ed.), *Electronic Culture: Technology and Visual Representation*, New Jersey: Aperture, 229-239.
- Mansfield, Nick. (2000). *Subjectivity: Theories of the Self from Freud to Haraway*, St Leonards: Allen and Unwin.
- Manson, Marilyn. (1998). *Mechanical Animals* [CD], Los Angeles: Nothing/Interscope Records.
- Marks, Joan H. (1994). 'The Human Genome Project: A Challenge in Biological Technology', In Gretchen Bender and Timothy Druckrey (Eds.), *Culture on the Brink: Ideologies of Technology*, Seattle: Bay Press, 99-106.

- Marsh, Anne. (1994). 'Bad Futures: Performing the Obsolete Body', *Continuum* 8(1), 280-291.
- Martin, Emily. (1996). 'The Egg and the Sperm: How Science has Constructed a Romance Based in Stereotypical Male-Female Roles', In Evelyn Fox Keller and Helen E. Longino (Eds.), *Feminism and Science*, Oxford: Oxford University Press, 103-117.
- McLuhan, Marshall. (1964). *Understanding Media: Extensions of Man*, London: Sphere.
- McRobbie, Angela. (1978). *Jackie: An Ideology of Adolescent Femininity*, Birmingham: Centre for Contemporary Cultural Studies.
- McRobbie, Angela. (1997). 'Second-Hand Dresses and the Role of the Ragmarket', In Ken Gelder and Sarah Thornton (Eds.), *The Subcultures Reader*, Routledge: London and New York, 191-199.
- McRobbie, Angela. (1999). *In the Culture Society: Art, Fashion and Popular Music*, London and New York: Routledge.
- Meikle, Jeffrey L. (1995). *American Plastic: A Culture of History*, New Brunswick and New Jersey: Rutgers University Press.
- Mohanty, Chandra T. (1991). 'Under Western Eyes: Feminist Scholarship and Colonial Discourses', In Chandra Talpade Mohanty, Anne Russo and Lourdes Torres (Eds.), *Third World Women and The Politics of Feminism*, Indiana University Press: Bloomington and Indianapolis, 51-80.
- Morris, Meaghan. (1988). 'Room 101 Or A Few Worst Things In The World', In Meaghan Morris, *The Pirate's Fiancée: Feminism, Reading, Postmodernism*, London and New York: Verso, 187-211.
- Morris, Meaghan. (1990). 'Banality in Cultural Studie.', In Patricia Mellencamp (Ed.), *Logics of Television: Essays in Cultural Criticism*, Bloomington and Indianapolis: Indiana University Press, 14-43.
- Morris, Meaghan. (1993). 'Things to do with Shopping Centres', In Simon During (Ed.), *The Cultural Studies Reader*, London and New York: Routledge, 295-319.
- Motz, Marilyn Ferris. (1983). ' "I Want to Be a Barbie Doll When I Grow Up": The Cultural Significance of the Barbie Doll', In Christopher D. Geist and Jack Nachbar (Eds.), *The Popular Culture Reader* (3rd Edn.). Ohio: Bowling Green University Popular Press, 122-136.
- Mulvey, Laura. (1989a). 'Visual Pleasure and Narrative Cinema', In *Visual and Other Pleasures*, London: Macmillan, 14-26. (1975).
- Mulvey, Laura. (1989b). 'Afterthoughts on "Visual Pleasure and Narrative Cinema" Inspired by King Vidor's "Duel in the Sun"', In *Visual and Other Pleasures*, London: Macmillan, 29-38.
- Mulvey, Laura. (1996). *Fetishism and Curiosity*, Bloomington and Indianapolis: Indiana University Press.

- Murrell, Rachel Kerys. (1997). 'Telling it Like it Isn't: Representations of Science in *Tomorrow's World*', *Theory, Culture and Society* 4(1), 8-106.
- Nava, Mica. (1992). 'Discriminating or Duped? Young People as Consumers of Advertising/Art', In Mica Nava, *Changing Cultures: Feminism, Youth and Consumerism*, London: Sage, 171-182.
- Nelkin, Dorothy and Lindee, M. Susan. (1995). 'The Media-ted Gene: Stories of Gender and Race', In Jennifer Terry and Jacqueline Urla (Eds.), *Deviant Bodies: Critical Perspectives on Difference in Science and Popular Culture*, Bloomington and Indianapolis: Indiana University Press, 387-402.
- Nunes, Mark. (1995). 'Jean Baudrillard in Cyberspace: Internet, Virtuality, and Postmodernity', *Style* 29(2), Summer, 314-327.
- Ockman, Carol. (1999). 'Barbie Meets Bouguereau: Constructing an Ideal Body for the Late Twentieth Century', In Yona Zeldis McDonough (Ed.), *The Barbie Chronicles: A Living Doll Turns Forty*, Sydney and Auckland: Bantam, 75-88.
- Ollman, Leah. (2000). 'The Ghost in the Machine', *Art in America* 10 October, 158-161.
- O'Sickey, Ingeborg Majer. (1994). 'Barbie Magazine and the Aesthetic Commodification of Girls' Bodies', In Shari Benstock and Suzanne Ferris (Eds.), *On Fashion*, New Brunswick and New Jersey: Rutgers University Press, 21-40.
- Panofsky, Erwin. (1991). *Perspective as Symbolic Form*, New York: Zone.
- Parkins, Wendy. (1999). 'Bad Girls, Bad Reputations: Feminist Ethics and Postfeminism', *Australian Feminist Studies* 14(30), 377-385.
- Piccinini, Patricia. (1996). 'Artist's Statement for *The Mutant Genome Project* 1994-1995'. Retrieved 3 August 2001 from <http://patriciapiccinini.net/pp/tmgrp.htm>
- Piccinini, Patricia. (1997). 'Artist's Statement for *Protein Lattice* 1997'. Retrieved 3 August 2001 from <http://patriciapiccinini.net/pp/plt.htm>
- Pile, Steve and Thrift, Nigel (Eds.). (1995). *Mapping The Subject: Geographies of Cultural Transformation*, Routledge: London and New York.
- Plant, Sadie. (1993). 'Baudrillard's Woman: The Eve of Seduction', In Chris Rojek and Bryan S. Turner (Eds.), *Forget Baudrillard?*, London and New York: Routledge. 88-106.
- Plant, Sadie. (1995). 'The Future Looms: Weaving Women and Cybernetics', In Mike Featherstone and Roger Burrows (Eds.), *Cyberspace, Cyberbodies, Cyberpunk: Cultures of Technological Embodiment*, London: Sage, 45-64.
- Plant, Sadie. (1996). 'On the Matrix: Cyberfeminist Simulations', In Rob Shields (Ed.), *Cultures of Internet: Virtual Spaces, Real Histories, Living Bodies*, London: Sage, 170-183.
- Plant, Sadie. (1997). *Zeros and Ones: Digital Women and the New Technoculture*, London: Fourth Estate.

- Pollock, Griselda. (1988). *Vision and Difference: Femininity, Feminism, and Histories of Art*, London and New York: Routledge.
- Poster, Mark. (1990). *The Mode of Information: Poststructuralism and Social Context*, Cambridge: Polity.
- Prado, C.G. (1995). *Starting with Foucault: An Introduction to Genealogy*, Boulder, San Francisco, Oxford: Westview.
- Rand, Erica. (1995). *Barbie's Queer Accessories*, Durham and London: Duke University Press.
- Rheingold, Howard. (1991). *Virtual Reality*, New York and London: Summit.
- Rodaway, Paul. (1994). *Sensuous Geographies: Body, Sense and Place*, London and New York: Routledge.
- Rodaway, Paul. (1995). 'Exploring the Subject in Hyper-Reality', In Steve Pile and Nigel Thrift (Eds.), *Mapping the Subject: Geographies of Cultural Transformation*, London and New York: Routledge, 241-266.
- Rogers, Mary F. (1999). *Barbie Culture*, London: Thousand Oaks, New Delhi: Sage.
- Rose, Barbara. (1993). 'Is it Art? Orlan and the Transgressive Act', *Art in America* 81(2), 83-87.
- Rothembuhler, Eric W. and Peters, John Durham. (1997). 'Defining Phonography: An Experiment in Theory', *Musical Quarterly* 81(2), 242-262.
- Rothfield, Philipa. (1990). 'Feminism, Subjectivity, and Sexual Experience', In Sneja Gunew (Ed.), *Feminist Knowledges: Critique and Construct*, London and New York: Routledge, 121-141.
- Rowley, Hazel and Grosz, Elizabeth. (1990). 'Psychoanalysis and Feminism', In Sneja Gunew (Ed.), *Feminist Knowledges: Critique and Construct*, London and New York: Routledge, 275-303.
- Rozak, Theodore. (1970). *The Making of a Counter Culture*, London: Faber and Faber.
- Sekula, Allan. (1986). 'The Body and the Archive', *October* 39 Winter, 3-64.
- Shelley, Mary. (1969). *Frankenstein*, Oxford and New York: Oxford University Press. (1818).
- Shildrick, Margrit. (1999). 'This Body Which is not One: Dealing with Differences', *Body and Society* 5(2-3), 77-92.
- Shiva, Vandana and Moser, Ingunn (Eds.). (1995). *Biopolitics: A Feminist and Ecological Reader on Biotechnology*, London and New Jersey: Zed Books.
- Shuker, Roy. (1998). *Key Concepts in Popular Music*, London and New York: Routledge.
- Sobchack, Vivian. (1994). 'Meta-Morphing', *Art/Text* 58 August/October, 43-45.

- Sobchack, Vivian. (1987). *Screening Space: The American Science Fiction Film* (2nd Edn.). New Brunswick, New Jersey and London: Rutgers University Press.
- Sobchack, Vivian. (Ed.). (2000a). *Meta-Morphing: Visual Transformation and the Culture of Quick-Change*, Minneapolis, London: University of Minnesota Press.
- Sobchack, Vivian. (2000b). '“At the Still Point of the Turning World”: Meta-Morphing and Meta-Stasis', In Vivian Sobchack (Ed.), *Meta-Morphing: Visual Transformation and the Culture of Quick-Change*, Minneapolis, London: University of Minnesota Press, 130-158.
- Sofia, Zoe. (1992). 'Virtual Corporeality: A Feminist View', *Australian Feminist Studies* 15, 11-24.
- Sofia, Zoe. (1995). 'Of Spanners and Cyborgs: “De-Homogenising” Feminist Thinking on Technology', In Barbara Caine and Rosemary Pringle (Eds.), *Transitions: New Australian Feminisms*, Sydney: Allen and Unwin, 147-163.
- Sontag, Susan. (1977). *On Photography*, New York: Farrar, Straus and Giroux.
- Spallone, Patricia and Steinberg, Deborah Lynn (Eds.). (1987). *Made to Order: The Myth of Reproductive and Genetic Progress*, Oxford and New York: Pergamon.
- Stelarc. (1998). 'From Psycho-Body to Cyber-Systems: Images as Post-Human Entities', In Joan Broadhurst-Dixon and Eric J Cassidy (Eds.), *Virtual Futures: Cyberotics, Technology and Post-Human Pragmatism*, New York and London: Routledge, 116-123.
- Stelarc. (2002). *Stelarc Official website*. Retrieved 8 July 2002 from <http://www.stelarc.va.com.au/>
- Stone, Allucquere Roseanne. (1992a). 'Will the Real Body Please Stand Up?: Boundary Stories about Virtual Cultures', In Michael Benedikt (Ed.), *Cyberspace: First Steps*, Cambridge: MIT Press, 81-118.
- Stone, Allucquere Roseanne. (1992b). 'Virtual Systems', In Jonathan Crary and Sanford Kwinter (Eds.), *Incorporations* 6, New York: Zone, 609-621.
- Stone, Allucquere Roseanne. (1995). 'Identity in Oshkosh', In Judith Halberstam and Ira Livingstone (Eds.), *Posthuman Bodies*, Bloomington and Indianapolis: Indiana University Press, 23-37.
- Strathern, Marilyn. (1996). 'Enabling Identity? Biology, Choice and the New Reproductive Technologies', In Stuart Hall and Paul du Gay (Eds.), *Questions of Cultural Identity*, London, Thousand Oaks, New Delhi: Sage, 37-52.
- Sturken, Marita and Cartwright, Lisa. (2001). *Practices of Looking: An Introduction to Visual Culture*, New York: Oxford.
- Swanson, Gillian. (1995). '“Drunk with Glitter”: Consuming Spaces and Sexual Geographies', In Sophie Watson and Katherine Gibson (Eds.), *Postmodern Cities and Spaces*, Oxford: Blackwell, 80-98.

- Taylor, Mark C. (1997). *Hiding*, Chicago: University of Chicago Press.
- Terranova, Tiziana. (1996). 'Posthuman Unbounded: Artificial Evolution and High-Tech Subcultures', In George Robinson, Melinda Mash, Lisa Tickner, Jon Bird, Barry Curtis, Tim Putnam (Eds.), *FutureNatural: Nature, Science, Culture*, London: Routledge, 165-180.
- Trinh T. Minh-ha. (1989). *Woman, Native, Other: Writing Postcoloniality and Feminism*, Bloomington and Indianapolis: Indiana University Press.
- Turkle, Sherry. (1984). *The Second Self: Computers and the Human Spirit*, New York: Simon and Schuster.
- Turkle, Sherry. (1996). 'Constructions and Reconstructions of Self in Virtual Reality', In Timothy Druckrey (Ed.), *Electronic Culture: Technology and Visual Representation*, New York: Aperture Foundation, 354-365.
- Turkle, Sherry. (1997). *Life on the Screen: Identity in the Age of the Internet*, London: Phoenix.
- Urla, Jacqueline and Swedlund, Alan C. (1995). 'The Anthropometry of Barbie: Unsettling Ideals of the Feminine Body in Popular Culture', In Jennifer Terry and Jacqueline Urla (Eds.), *Deviant Bodies: Critical Perspectives on Difference in Science and Popular Culture*, Bloomington and Indianapolis: Indiana University Press, 277-313.
- Veltman, Kim H. (1996). 'Electronic Media: The Rebirth of Perspective and the Fragmentation of Illusion', In Timothy Druckrey (Ed.), *Electronic Culture: Technology and Visual Representation*, New Jersey: Aperture, 209-227.
- Virilio, Paul. (1988). Interview with Paul Virilio, *Block 14, Special Issue: The Work of Art in the Electronic Age*, 4-7.
- Virilio, Paul. (1991). *The Aesthetics of Disappearance*, (Philip Beitchman, Trans.), New York: Semiotext(e). (1980).
- Virilio, Paul. (1994). *The Vision Machine*, (Julie Rose, Trans.), Bloomington and Indianapolis: Indiana University Press. (1988).
- Virilio, Paul. (2000). *The Information Bomb*, (Chris Turner, Trans.), London and New York: Verso.
- VNS Matrix. (2001). *VNS Matrix website*. Retrieved 11 Feb 2002 from <http://sysx.org/vns>
- Wajcman, Judy. (1991). *Feminism Confronts Technology*, Cambridge and Oxford: Polity Press.
- Waldby, Catherine. (1997). 'Revenants: The Visible Human Project and the Digital Uncanny', *Body and Society* 3(1), 1-16.
- Waldby, Catherine. (1999). 'IatroGenesis: The Visible Human Project and the Reproduction of Life', *Australian Feminist Studies* 14(29), 77-90.

Waldby, Catherine. (2000). 'The Visible Human Project: Data into Flesh, Flesh into Data', In Janine Marchessault and Kim Sawchuk (Eds.), *Wild Science: Reading Feminism, Medicine and The Media*, London and New York: Routledge, 24-38.

Weiss, Gail. (1999). 'The Durée of the Techno-Body', In Elizabeth Grosz (Ed.), *Becomings: Explorations in Time, Memory, and Futures*, Ithaca and London: Cornell University Press, 161-175.