

**THE BODY AS FICTION /
FICTION AS A WAY OF THINKING:
ON WRITING A *SHORT (PERSONAL) HISTORY*
OF THE BRA AND ITS CONTENTS**

PART ONE - EXEGESIS

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SUMMARY

This thesis uses fiction as a research technology for investigating and thinking about issues to do with bodies and knowledge at the cusp of the 20th and 21st centuries.

It includes sample material from a novel in progress -- *A Short (Personal) History of the Bra and its Contents* -- to illustrate some of the unique outcomes of this approach to exploring cultural history and writing cultural criticism.

One of the advantages of fiction is that it allows me to create a discursive field in which it is possible for the very wide range of issues raised by my topic to coexist, work off each other and cross-fertilise. These include ideas regarding gender, sexuality, nurture and subjectivity; issues to do with the implants controversy, the cancer industry and the corporatisation of medicine (and hence various current debates within science and medicine); as well as movements in fashion history and popular culture -- all of which contribute to making up the datasphere in which and through which we continually reproduce ourselves as subjects.

More importantly, fiction allows me to write from within a specific historical, cultural and sexual body; thus engaging readers likewise as embodied desiring subjects. Which is to say, it presents a way to write about the body and to involve it in relationship at the same time; to engage and move readers on an emotional (visceral) as well as intellectual level -- indeed, to explore the place where these are inseparable.

As a companion text to this material, the first section of the thesis describes the discursive strategies used in the novel in the context of an exploration of points of convergence between post-structuralism, quantum physics and ecological spirituality -- in particular, regarding the relationship between body and mind, matter and spirit, nature and culture, as well as the overriding question of: 'how do we know what we know?'

STATEMENT OF AUTHORSHIP

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and bibliography of the thesis/portfolio.

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'I dreamt I took the bull by the horns in my Maidenform bra...'

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INTRODUCTION

This thesis uses fiction as a research technology for exploring a range of issues to do with difference, identity, knowledge, and beliefs about bodies and nature at the cusp of the 20th and 21st centuries. It includes sample material – as the experimental outcome of this process – from a novel in progress called *A Short (Personal) History of the Bra and its Contents*.

As a research topic, the ‘bra and its contents’ opens up a network of issues concerning the complex and dynamic relationships between bodies and culture.

The bra is an accoutrement to the body which also (re)creates it in its own image. It is a wonderful example of how the ‘nature’ of the body is constituted by and within discursive practices such as fashion, medicine, the law, science and spirituality.

By defining and accentuating the most visible signifiers of femininity in our culture, the bra (as a topic) also ‘contains’ gender. Furthermore it holds or gestures towards the origins of subjectivity, with ‘the breast’ – by its presence and absence – as the first Other.

Through this, the breast – as the first Other, and as a signifier of gender difference – opens up the subject of the dualities or oppositions which underpin phallographic discourse; at the same time as it confounds the unitariness of sexual signification by being a doubled image. As the first Other it is ‘the breast’; as a signifier of sexual difference it is the plural, ‘breasts’. Likewise, as the first Other it initiates the process whereby we see our individuality as neatly bounded at the skin. At the same time, in the closely intertwined needs and rights of the mother-child dyad focussed around the milk produced by this relationship, it also messes up that boundary.

In colloquial terms, the 'breast' (for both genders) is the seat of feelings, the fleshy door to the heart. In this way, too, it is a deep element or site of our sense of self or identity, for when asked to point to themselves, most people indicate their heart (pointing to their breast) rather than their head.

As such, for this thesis I have taken the contents of the bra as indicating the whole of the body-self and body-culture relationship. Within this there is also a range of more specific but inter-linking issues around subjectivity, gender and gender diversity, the implants controversy and body modifications in general, the cancer industry and the corporatisation of medicine, maternity, nurture and the history of breast and bottle-feeding, and fashion history.

There is no part of this thesis that came 'first'. The fiction is not an illustration of the theory. The theory or non-fiction is not an exegesis (in the usual sense of interpretation or explication) of the fiction. Both parts were developed and written in a continuous back and forth process – the theory informing and deepening the research and fiction writing, and the research and fiction writing, in turn, informing, grounding and deepening the theoretical insights.

Thus the novel structure was created in response to research and ideas and what developed in the novel was used to target and guide further research and further develop and refine the ideas. Sometimes I used the mechanism and techniques of fiction to explore an issue, other times I used the tools of logic and reasoning and the language of non-fiction to keep working over the plethora of images, concepts, questions and ideas thrown up by my topic. The theory gave me additional tools to interrogate the issues raised by my topic and to constantly analyse my own textual strategies. While the materiality and more concrete circumstances of fiction provides a space for exploring and testing out and expanding on the theories.

My intention is that the two parts should act as companion pieces, complementing and working off each other and expanding the reading possibilities of each. Both are ways of discovering and expressing things that are unlikely to be discovered and are difficult to express with only one process or the other. So the design here is a matrix rather than a linear journey, and all parts of the thesis are in a sense different ways of telling the same overall story. Even the bibliography is a way of telling a story through links – another mapping of the issues; while the longer endnotes at times also function as a hypertext to the main narrative.

Within all of this there is the constant tension between an artistic process and a polemical one – between expanding out and reigning in; between the wide radar that creative thinking both allows and encourages, compared to the narrowing down process of constructing a single definite thesis.

As well there is the tension between producing an artistic work where you want the influences and theory to be almost invisible, and an academic thesis in which you are required to demonstrate clearly the connections. Indeed, part of what I want to explore and demonstrate in this thesis is the power of juxtaposition and montage. Thus while there are obvious and explicit links between the fiction and non-fiction parts of this thesis, there is also, I hope, power in the juxtaposition of these two very different ways of approaching a similar field of topics about the body-mind and its relationship to and within western culture.

So part one of this thesis is the non-fiction 'exegesis', while part two presents a large amount of sample fiction (as much as space would permit). Some is in the form in which it is likely to appear in the final novel, other parts have been reconfigured specifically for this thesis and to create special themed chapters. Basically, the overall focus of this thesis is to explore the process and outcomes of using fiction as an academic research technology in tandem with non-fiction, rather than to present a completed fiction work ready for mainstream publication.

In these samples I am using fiction as a discursive technology to create a laboratory in which to observe aspects of culture at work: the connections, disconnections, interweavings, the gaps and slippages. (What happens when you put x with y – two things not usually juxtaposed or looked at together?) My aim is to create a discursive space in which to track some of the ways we perform and manage cultural ideas about normativity and bodily difference (ideas around gender, beauty, health and illness, for instance). The novel is, in this sense, a place in which to experiment with the chemistry of different characters and situations.

By injecting meticulous research into the complexity, pleasure, playfulness and fluidity of fiction, this becomes both a process of discovery and a process of creation, often facilitating a more uninhibited cross-pollination of ideas than in more traditionally disciplined writing modes.

My technique is to keep going out from an initial topic (such as body modifications, or breast-feeding, or cancer treatments) drawing in as many unexpected threads, metaphors, images, allegories and stories as I can, often relying initially on an irrational feeling that something is appropriate, a gut sense that a connection will emerge. The long process of collecting, sifting and working over this plethora of data – all the ways in which we decorate, modify, describe, classify,

train, enjoy, nourish, abuse, love and hate our bodies, the ways in which we use them in relationship with others and the world around us, the many ways as a culture we regulate and re-design them – creates, in a sense, a complex system. When the quantity of factors gets to a certain saturation point, meanings, connections and possibilities start to accumulate.

As such fiction is used here not just as a frame or a means for presenting ideas or information arrived at through logical thinking or non-fiction discourse, but as a way of analysing and generating ideas, a way of thinking.

Indeed, this process was so effective that the difficulty was in knowing where to draw the line. Nevertheless, while there are numerous ways in which this topic could have been expanded and explored, I found that what I kept coming up against – whether I was researching gender and gender variations, breast implants and cosmetic surgery, the history of bottle and breastfeeding, or cancer treatments and theories of disease – was a recurring epistemological question of: how do we know what we know? Can anything ever really be proven in a universal and permanent way? If not, then what is involved in something becoming ‘true’?

So the recurring theme in the first (non-fiction) part of this thesis is the question of how we derive knowledge of ourselves, or how we represent ourselves to ourselves – as individual personalities or gendered subjects (the notion of a self), and as a species (how ‘the body’ is conceptualised in discourses such as science, medicine and spirituality). Or, to put it another way, how we negotiate conflicting notions of truth and meaning, and how our bodies might figure in this.

Chapter one begins with a review of literature about breasts, from mainstream popular books and ‘owner’s manuals’, to writing by, on and through breasts by feminist writers and thinkers. From these examples it seemed clear to me that in order to write an empowering narrative of the body, or any aspect of it, it was also necessary to constantly interrogate and explore the basic cultural categories out of, through and around which it is constructed.

Therefore *Chapter two* is a brief overview of some of the concerns of post-structuralism, in particular post-structuralist feminism, regarding the relationship between bodies, language, power and knowledge. This chapter looks, for instance, at the pervasiveness of dualistic thinking and the operation of the mind/body, nature/culture split within western philosophy, and the difficulty of rethinking these dichotomies in relation to bodies without simply reversing them.

Chapter three takes up this problem by looking at philosophical post-structuralism in the context of the two other great paradigm shifts (or post-structuralisms) of the twentieth century that also form a part of the discourse of bodies: quantum physics (as a shift from the structuralism of Newtonian science) and ecological spirituality (as a shift from monotheism or atheism). In this chapter I trace a history of these movements and explore how they might help reconceptualise the body (and nature) as more than just a passive surface for the activity of culture. As critiques of the possibility of objective or value-free knowledge, these shifts also pose important questions not only for science and philosophy, but about the function of all forms of story-telling and history-making, all forms of ‘knowing’. As such this chapter also raises questions with regard to the form, method and aims – the myriad choices and decisions I had to make – in writing my own history of the bra and its contents.

In *Chapter four*, I take a slightly more meandering or meditative trek through several ways of challenging the mind/body split by conceptualising the body as an open, dynamic and flexible system interdependent with the mind. Drawing on ideas from ecological spiritual traditions (such as Buddhism and Breema), Affect Theory, psychoneuroimmunology, and some recent findings in neurology about the role of emotions in decision making, I explore some of the ways in which the body is an intelligent and essential participant in the formation of our ideas, beliefs and knowledges. By exploring the role of affect and emotional scripting in the continual cultural process of ascribing meaning and value, I look at how fiction, as a psychophysiological practice – a process that affectively engages the body as well as the mind – might be able to play a role in this.

Chapter five returns to the question of form and method, and the philosophy of history that underpins my stylistic choices in writing my novel, in particular the use of montage. It also gives a brief overview of the characters, structure and recurring devices used in the novel and how these are managed in order to explore some of the themes. I also look at the issue of accountability, and ways of creating a research context for the novel as ‘a text event’ so that it can provide a focus for a continuing cultural conversation about these issues.

While the *Conclusion* should, by rights, go at the end of the whole thesis (and thus at the end of the fiction samples), in order to fit into the constraints of a linear form and make two comfortably sized packages, the conclusion and bibliography follow Chapter five at the end of the non-fiction section. Placed here, these remarks offer both a commentary on the non-fiction thesis while also acting as a springboard (or invitation) into the fiction.

***CHAPTER 1–
WRITING ON, ABOUT, AND
THROUGH BREASTED BODIES***

Writing about breasts

In feminist writing, breasts have been a recurring site for exploring issues around gender and subjectivity, and interwoven issues regarding desire, authority, knowledge and power. Given the amount of writing about and on bodies over the past three decades, there has certainly not been as much writing about breasts or the experience of having breasts as one might expect. Iris Marion Young commented in 1990 on this ‘amazing absence of writing about women’s experience of breasts’ – amazing not only because of the ‘vast explosion’ of writing in the field of women’s studies but also because of the endless fascination of the topic for women when it is raised in conversation.¹

One of the rare sites where women’s feelings and ideas about this constantly changing part of their bodies (changing both in physical terms, and in terms of its function or meaning in their lives), has been canvassed is a 1979 collection called *Breasts: Women Speak About Their Breasts and Their Lives*, by Daphna Ayalah and Isaac J. Weinstock². This book features extensive edited interviews with North American women of different ages, classes, and cultural backgrounds, together with photographs of their breasts. The book is also interspersed with historical images and quotations on the subject of breasts or breast-feeding – ranging from quotations from figures such as Margaret Mead and snippets of newspaper items to an excerpt from a Lenny Bruce routine.

In contrast, most of the serious popular or mainstream books about breasts have tended to focus on medical or health concerns. These are usually a type of ‘owner’s manual’, written by doctors or health journalists, and while they often include a short chapter on some historical or social aspects

of breasts, the focus is generally on issues such as puberty, bras and aesthetic or cosmetic concerns, breastfeeding, and diseases of the breast such as cancer.

An early example of this is the 1944 book *The Complete Guide to Bust Culture* written by A.F. Neimoeller, whose name is followed on the title page by his scientific qualifications ('A.B., M.A. B.S. '), with the foreword written by a doctor.³ The foreword and introduction both refer to wider cultural issues and the way 'the 'human female bosom has exercised a most powerful influence on human thought' in the areas of religion, literature, folklore, art and architecture (5) but the focus of the book is breast 'hygiene'. The long list of chapters include subjects such as 'Physiology and Anatomy', 'Development', 'Contour' and 'Glands' through to 'Creams and Lotions', 'Plastic Surgery', 'Brassieres', chapters on both small and large busts, one on 'The Sagging Breast', then on to chapters on pregnancy and lactation, and a final chapter on 'Diseases of the Breast'.

Dr Elizabeth Weiss's 1975 book, *The Female Breast*, has a similar trajectory, but differs by being one of the first of the owner's manuals written by a woman. It includes a chapter on 'A Woman's Feelings About Her Breasts', and also introduces a new topic, 'Sex Play and the Breast.'⁴ A 1982 book by Drs Andrew and Penny Stanway, called *The Breast: What Every Woman Needs to Know from Youth to Old Age*, was unusual in including a chapter on 'The Male Breast', mainly focussing on possible disorders such as gynacomastia (breast swelling in males), and breast cancer, which when it occurs in men makes up 1% of all breast cancer cases.⁵

British health journalist, Brigid McConville's 1994 book *Mixed Messages* was marketed as 'the first book to consider the well-being of our breasts in the wider context of our lives,'⁶ and covered a similar range of topics to the earlier manuals, but from a much more avowed politically feminist or 'woman centred' angle. For McConville, 'the real "experts" on breasts... [are] women' (xv) and her book draws on interviews with women and women's organisations, and has chapter subtitles such as 'Whose breasts are they: a male takeover?', "'Sexy" versus "Saggy"', and 'Sexist judgements'.

In the electronic media, in Australia ABC Radio National's 'Coming Out Show' did a feature in 1975 called 'Boobs-A-Lot: An Obsession of Western Cultures?'⁷, and twenty years later in 1996 Elle McFeast produced her 'Breasts Special' for ABC television, which likewise combined light comedy with serious discussion of issues such as the contemporary western cultural obsession with breasts, women's body image, and breast cancer.⁸

It would seem however, that the ‘western obsession’ is not with breasts as such, but with a particular shape of breast, one usually achieved or maintained with the assistance of either implants or a well-fitted bra. Women’s naked breasts in all their variety, and at all stages of life, are still virtually absent from public life in western culture. Ayalah and Weinstock’s 1979 book is still a rare photographic source of this rich variety. On the other hand, in recent years there has been a plethora of documentaries on lingerie.⁹

A 1966 book, written by Australian journalist James Holledge, called *The Cult of the Bosom* and subtitled *The ups and downs of the bosom over the ages* provides a good example of what is excluded in the making of the perfect breast of western obsession. Holledge's book is a mix of voyeurism, ribald comments, social history snippets, evolutionary theory (via Desmond Morris), fashion history (including the extraordinary and yet almost forgotten Rudi Gernreich topless bathing suits and dresses from 1964), statistics on bra sales and breast size, bits of pop psychology, (unsourced) quotes from a variety of experts, commentary on the new and fast growing cosmetic surgery industry and early use of silicone, anecdotes and speculation. Illustrations range from a portrait sketch of fourteenth century Queen Janna of Naples to photographs of more contemporary ‘well-endowed’ pin-up models. However, in a telling omission, breast-feeding and breastmilk don’t rate a single mention.¹⁰

Feminists writing on breasted bodies

In her 1990 essay, ‘Breasted Experience’, Iris Young explores various aspects of both ‘the cultural construction and fetishisation of breasts’ in western ‘male-dominated’ society, and the experience of ‘breastedness’. While drawing on work by continental feminist theorists such as Luce Irigaray and Julia Kristeva, and Merleau-Ponty’s phenomenology, Young primarily reflects on her own experiences and on writings about and by other women concerning their feelings about their breasts (193 -197). She raises several key issues, putting them on the agenda for further writing.

In this work, Young speaks of the often intimate connection between identity and breasts for women, given that ‘if the chest is a centre of a person’s sense of being in the world and identity’ then a woman’s breasts are ‘entwined with her sense of herself’, especially as they ‘emerge for her at that time in her life when her sense of her own independent identity is finally formed.’ (189)

She also comments on the role of bras in shaping, confining and giving rigid borders to breasts, enhancing their status as objects of visible consumption, and restricting their movement, fluidity, expressiveness and involvement in the world. ‘The bra normalises the breast, lifting and curving the breasts to approximate the one and only breast ideal.’ (195)

However the erotic pleasures for women of their breasts are, Young suggests, ‘for a phallic sexuality.. a scandal’, standing for ‘the irreducibility of sexual difference to a common measure’ (194) Likewise, ‘breasts are [also] a scandal for patriarchy because they disrupt the border between motherhood and sexuality.’ (190) ¹¹

Finally Young looks briefly at cosmetic surgery and breast augmentation, and – the other ‘knife at the breast’ – the experience of cancer and mastectomy. She ends by echoing Audre Lorde’s ¹² anger and sadness that even here the imperative to normalize leads to the one breasted ‘Amazon’ woman being asked to cover up her new body and her difference with a prosthesis.

Not mentioned by Young, but relevant to her concerns is the work of the late British photographic artist Jo Spence who, having been diagnosed with breast cancer, produced in the late 1980s in collaboration with Dr Tim Sheard a startling and provocative series called ‘Narratives of Disease’. In this Spence was literally writing on her diseased body. The series moves from photographs of herself naked just prior to her operation, with the dotted lines and markings in texta inscribed on and around her breast for the surgical cuts, through to graphic and revealing photographs post-surgery of her (partial) mastectomy scars, with the word ‘Monster’ written across her chest. ¹³

Unlike the poetically beautiful self-portraits of her mastectomy scar by the North American photographic artist, Matushka (which appeared on the front page of the *New York Times Magazine* in 1993), Spence’s body was not that of a former model, but that of a middle-aged woman with all the folds and lines and surplus flesh that is usually well hidden behind clothing in public and rarely displayed as art, even when both breasts are intact.

Even Matushka’s photographs – beautifully constructed and staged as almost triumphant – were considered daring and brave, and to some, horrific (and thus not the subject for a glossy magazine). ¹⁴ Spence’s works – with their clinical and unflattering framing and lighting, deliberately portraying the “ugliness” of being seen as Other’ ¹⁵ – were deeply confronting.

When I saw this series at the Tin Sheds gallery at Sydney University in 1990, I was surprised to find in the Guestbook, in amongst the comments of admiration and gratitude for Spence’s courage and honesty, and her ability to work with her experience in such a telling way, a large number of comments expressing anger, disgust and outrage that such images of such a body would be shown

in a public gallery. Even at a university art gallery, for many people the association of breasts with beauty and nurture were the only ones allowed and anything else was regarded as obscene.

Even now (fifteen years later), when so many fashion designers, cosmetic companies and department stores carry 'pink-ribbon' merchandise¹⁶ and breast cancer awareness is heavily promoted, Spence's images stand almost alone. Women literally showing their scars in public is not considered polite. Indeed, any image or glimpse of a woman's naked breasts other than the ideal of the youthful pert breast is still generally felt to be in very bad taste.

A different concept of the 'good' or acceptable breast is explored in an essay by Jane Gallop, called 'The Teacher's Breasts'.¹⁷ In this essay Gallop points to the distinction between 'breasts' and 'the breast'. To touch (touch on, refer to) one – 'the breast' – is maternal, evoking the symbol of nurture; whereas to touch or speak of both (the plural – 'breasts') is a sexual gesture. As such, she suggests, the distinction between 'the breast' and 'breasts' could be thought of as similar to that between the Lacanian 'phallus' and 'a penis' – the difference, that is, between a symbolic structure and a personal one, with a complex relationship existing between the two.

In teasing out questions to do with teaching, nurture, discipline, sexuality and erotics (including a kind of 'desexualised' erotic often associated with maternity and 'good-girl' feminism or 'sisterhood'), Gallop explores a host of under-recognised gendered and family relations and dynamics within pedagogical theory, and within feminist pedagogical theory in particular. As such 'the teacher's breasts' becomes a loaded site for exploring issues to do with gender, desire, authority, knowledge and power.

Another highly exploratory and evocative essay was one published in 1997 by theologian and philosopher Catherine Keller, called 'The Breast, the Apocalypse, and the Colonial Journey', in a collection of writings about the millennium.¹⁸

In a performance that is hard to summarise, Keller weaves a wrenching account of Cristobal Colon's (or Christopher Columbus as we know him in English) destructive encounter with the Tainos people of the Carribean. She describes how this encounter instituted the end of the Tainos people's world as they knew it, as forces elsewhere were heralding the dawn of the modern era. In particular she traces Colon's use of metaphors of apocalypse (unveiling or discovery) and the breast (maternal fantasies) in his journal – metaphors which map themselves over the experience. In doing so she deconstructs the way both the land and the people are represented or imagined by the colonisers as feminisable Other: 'mysterious and fertile' (45), 'a paradise of gratifiable desire'

(44), as the colonists' plans moved from 'conversion and exploitation.. swiftly on to enslavement, wanton mayhem, and genocide' (44).

Once they plan to enslave the Tainois people, the conquerors immediately begin to perceive them as childlike, in a kind of semiotic state, as they (the conquerors) 'gather themselves back into the "symbolic", the realm of language and the law of the Father' (46).

In this narrative of eroticised commodification of the Other, Keller draws on Kristeva's notion of the abject maternal body that is both fascinating and terrifying, provoking a desire to flee –to keep one's boundaries clear – at the same time as a desire to transgress them (50).

This period of colonisation is also the dawn of the epoch of rationalism, the 'enlightenment' and modernity. Colon (like Descartes, Bacon and Newton) refers to God as his basis and justification, even though such references have been expunged from the dominant story of modernity. But as modernity becomes in effect 'a redirection of the spiritual energies of the culture' (52), the maternal fantasies take over as a more acceptable cultural mapping.

Keller presents this cycle of desire and loathing, this 'collective abjection of the female', stoked by the explosive charge of apocalyptic visions of an imperial future, as that which becomes 'the very horsepower of modernity' (55).

While in this schema (and continued for instance through the workings of the International Monetary Fund) the dependence of the colonised on the colonisers is conscious and thus resisted, the dependency of the coloniser – 'mixed of endless oral gratifications (of coffee, sugar, fruit, meat)' – is repressed, and therefore lethal (55).

It is this corrosive dualism of coloniser/colonised (son/mother, male/female, culture/nature) that Keller's essay seeks to deconstruct. Her aim is to collapse it instead into a hope for the future, a hope for a 'a force-field of connecting differences, differences between, among, and within ourselves' (56).

Australian academic Alison Bartlett also builds on the work of Kristeva in a series of complex and thoughtful articles about breasted experience. At the start of her essay, 'Thinking through Breasts', published in 2000¹⁹, Bartlett cites Kristeva's project of looking for ways to create meanings of mothering based on experiences, rather than on the inherited religious iconography that structures much contemporary western symbolism about motherhood. Finding that her breasts

became ‘central to the ways in which [she] had to reinvent [her]self as a mother in coming to terms with a new body/subjectivity,’ Bartlett explores her own experiences while breastfeeding her daughter and searches out pairings of motherhood and thinking, and breasts and thinking, in the work of other contemporary writers. ‘Must mothering and theorising remain contradictory impulses?’ she asks, adding, ‘(Were they ever?)’

Bartlett is ‘interested in thinking breasts’ in both senses of the word: the way breasts are thought about, and what it might be like to think with breasts / think breastedly / think through breasts. She explores both how they are spoken of, and ‘how they might speak, as sites of representation and knowledge.’ She writes:

[T]here is a curious reference in my Penguin *Macquarie Dictionary* to ‘the bosom’ which ‘is regarded as the seat of thoughts and feelings’ (66). Imagine that! The seat of thoughts. Breasts as generators of ideas, as producers of knowledge. What difference would it make, then, if you have a manly breast that’s smooth and flat and rippling with muscle and maybe even hair; or an adolescent girl’s breast that’s changing shape, weight, form daily; or a maternal breast that’s heavily drooping and full, actively producing milk and nourishing an infant, leaking everywhere at the thought of the baby and constantly replenishing and being replenished? (183)

In performing the ‘matter’ of breasts, Bartlett is concerned with issues to do with ‘performance, space, language and knowledge’. However, much as I have found through my own research, reflection and writing process for this project, Bartlett also finds that working with this topic in the context of post-structuralist theories of bodies and embodiment (‘bringing theoretical reflections to the matter of my lived experiences’) suggests both possibilities and limitations in this theory. Referring to the work of Vicki Kirby (see below), Bartlett writes: ‘Kirby’s suggestions for a complex, informed, and knowledgeable body are tantalisingly appealing to someone like myself whose body has grown and birthed and nourished a child, whose capacity to perform miracles of such magnitude is awesome and is rarely acknowledged in a medical system that claims authority and control over women’s bodies.’ (185)

An edited version of Bartlett’s essay also appears in Fiona Giles’ 2003 book, *Fresh Milk*²⁰. Subtitled *the secret life of breasts*, Giles’s text is full of flesh and fluids, the multiple ways breastmilk and lactating breasts figure in history, biology, pornography, sexual practices, recipes – every room in the house, every part of our lives, in public and in private.

Published as a mainstream paperback and written in a thoroughly accessible style, Giles' research around lactation is nevertheless deeply informed by post-structuralist feminism and the more recent critique of heteronormativity. Indeed, her book successfully queers the subject of breastfeeding, bringing it out of the closet and into public space in a way that resists it ever again being reduced or contained by neat categories and religious iconography.

Iris Young observed that 'breasts are a scandal for patriarchy because they disrupt the border between motherhood and sexuality'.²¹ Giles (via her informants) shatters that border, as well as the antiseptic border between medical and cultural discourse on breasts.

Using a methodology influenced by Shere Hite of collecting and collating stories, Giles has created 'a galaxy of voices, a narrative Milky Way...an oral history in the fullest sense of the word' (xvi). Her book captures a sense of the abundance and excess of this very 'natural' and very 'cultural' activity, and of the multiplicity of meanings, images and desires around lactation that co-exist, contradict, contaminate and encourage each other within and across the cultural imaginary.

If Giles's book provides a model of one way of approaching the subject of breasts in a way that allowed for excess and contradiction, I found Marilyn Yalom's 1997 book, *A History of the Breast*²², in contrast a kind of 'how not to.' For while Yalom's book contains an impressive amount of historical and contemporary material about breasts, her use of a simplistic form of ideology critique within a liberal-humanist framework creates serious contradictions and problems for her project. The result is an extremely frustrating and slippery text as she struggles to tame her subject, packaging it to fit a view of progress in which late twentieth century North America represents the high end point of liberation for women. Indeed her history illustrates the pitfalls of trying to construct an empowering narrative of the body without questioning any of the basic cultural categories out of, through and around which it is constructed.

Yalom's method of reading paintings and cultural traces as if they had a single fixed meaning posits power as top-down and monolithic (outside or above most of us), and existing in a public realm which is distinct from women's private, subjective (and largely unrecorded) feelings about their bodies. By assuming a kind of hostility between nature and culture, with individual women (the rightful 'owners' of these body parts) required to wrest back their breasts from all the uses that men and culture want to put them to (to uncover the natural 'truth' about breasts), her text inadvertently reproduces the classic dualities of western philosophy that have been so integral to feminist critique: public/private, active/passive, culture/nature, mind/body, male/female.

For instance, regarding Yalom's recourse to the notion of women's rightful 'ownership' of breasts – how can a woman 'own' a part of her body unless she is regarded as having some kind of existence over and above, or apart, from it – that is, except within the framework of the Cartesian mind/body split?

A History of the Breast is a text full of gaps and slippages and recuperative 'buts' as Yalom tries to patch in conflicting evidence and ideas (such as a few snippets of post-structuralism) without upsetting her overall paradigm and the seamlessness of her narrative. But despite the consistently amused tone and wry asides, there seemed at times a rage, a pain and vulnerability or defensiveness which her theoretical underpinnings (or lack of them) leave her unable to express or to deal with. Leaving her, for instance, caught in the contradictions between her faith in American market liberalism (in which implants become finally just another choice now available to women as a result of medical progress) and the despair she feels at the constant 'assault' on women of commercial images of 'perfect' breasts.

In seeking to discipline such an excessive, contradictory, ever-changing subject within a traditional historiography (lifting and separating each historical period, as it were, to better identify and enhance the cleavages) Yalom's history, while abundant, became for me fixed, artificial, and far less stimulating, pleasurable, provocative and nourishing than it could have been.²³

In many ways Yalom's book has become a reference point for why my project needs to be enacted within a deep and ongoing questioning of notions of the body, of subjectivity and of cultural history; and also why it might be best enacted through fiction.

Performativity in writing the body

Texts are 'bodies speaking to other bodies'²⁴ and a more tactile, poetic, subjective and performative approach to writing, which involves the reader in a relationship of desire, is a feature of several of the writers mentioned who have looked at the subject of breasts. It is evident in the work, for instance, of Alison Bartlett, Catherine Keller and in parts of Fiona Giles' book, as well as in the photographic texts of Jo Spence.

Alison Bartlett writes, 'In my effort towards embodied theory, I want to entwine personal and public discourses, maternal and academic writing, theorising and cultural practices.'²⁵

In the 1970s and 80s *l'écriture féminine* was posited as a particular way of writing that could be said to mimic or be analogous to a concept of female sexuality that is neither simply the same, the opposite, or the complement to 'masculine' sexuality as it is normatively described. A form of writing that is more fluid, non linear and non hierarchical, with the subject-object less clearly defined, multivocal and polysemic, shifting and playful.

These characteristics are not of course confined to writing by women and can be seen in much writing that could be described as 'experimental'²⁶, as well as in writing nominated in Australia as 'fictocriticism' – a kind of hybrid between essay and fiction that Anna Gibbs describes as 'never a genre that was One' but more a 'hit and run guerilla action'.²⁷

For Gibbs 'fictocriticism' is a part of the post-modern collapse of the 'absolute distinction between discourse and meta-discourse', the recognition that philosophy (like literature) is a 'tropological discourse... reliant on metaphor.'²⁸ Fictocriticism in this rendering is a way of saying something 'which can't be said any other way: because it is not reducible to propositional content', and it is, 'in essence, performative, a meta-discourse in which the strategies of the telling are part of the point of the tale.'²⁹

Everyone has 'a breast', and has had a relationship to 'the breast' (as receiver; or as giver *and* receiver), but only some of us have 'breasts', and these breasts come in such a variety of shapes, sizes and colours – and change so much throughout a person's lifetime – that generalisations (meta-statements) are always fraught. Every statement has to be tentative; there is no solid stable place of enunciation, no unitary fixed subjectivity or identity conferred by these very fluid, leaky and multiple organs that have such a plethora of material and symbolic functions and attributes.

The title of my novel *A Short (Personal) History of the Bra and its Contents* is a response to this fluidity and porousness that aims to work on a number of levels. For instance, it acts to signal the situatedness of my position as cultural historian (writing a 'personal' history), as well as to acknowledge the philosophical impossibility of a clear outline to the subject 'breasts' or 'the breast', which can only be temporarily contained or given 'definition' by its cultural accoutrement, the bra.

Writing a combination of experimental fiction and criticism allows me to play with these ideas, and to perform the body in a range of ways, including writing from within a very specific culturally and sexually located body. It thus enables me to engage readers, likewise, as embodied,

desiring (and ever-changing) subjects. It allows me, therefore, to both write about the body (and rewrite the body) while also involving it in relationship.

Fiction also enables me to create a discursive space in which it is possible for a very wide and range of topics and issues (everything from fashion history to the corporatisation of medicine, to the increasing ability to modify bodies) to co-exist, rub up against each other and to cross-fertilise. In this sense, fiction is a kind of laboratory – a technology for generating ideas, feelings, metaphors, links and new research interests and trails.

My aim is to set it up in such a way that it is not just a generator for myself as writer, but that it can fulfil this function for others, continuing to be an active text – accumulating and losing and changing meaning – over time and for multiple and different readers.³⁰

The other advantage to writing fiction in this way, is that very little is off limits. While certain topics or approaches might be considered out of place in academic writing, or politically inappropriate (repressed) within a particular philosophical framework, with fiction it is possible to create a cast of characters or set up a situation in which a much greater range of approaches, topics and ideas can be explored in relative safety.

The following chapters provide a kind of theoretical backstory to what happened when I approached the topic of a short history of ‘the bra and its contents’ in this way. The issues raised within my novel kept leading me back to various debates within science, and between the sciences and the humanities, and to issues about the ‘nature’ of dualities, which form a deep undercurrent in post-structuralist theories of the body.

***CHAPTER 2 –
POST-STRUCTURALIST
FEMINISM AND THE BODY***

The system of dualities that underpins phallocratic culture

Throughout the 1980s and 1990s, a significant part of the project of post-structuralist feminism, working within the wider field of post-structuralism, concerned elaborating and deconstructing the relationship between language, power and the body.¹

This work demonstrated that integral to the workings of ‘phallogocentric’ or ‘phallocratic’ culture are a set of dualities that function as binary opposites:

mind/body
 active/passive
 rational/irrational
 culture/nature
 public/private
 reason/emotion
 subject/object
 self/other.

And underlying these, as the primary metaphor that links these concepts to bodies and inscribes them as more or less powerful:

male/female.

By constructing difference as opposition, privileging one quality or state over the other as the normal, defining, positive term, with the second term thus figured as an absence of this quality – subordinate, lacking, only existing within this relationship and never able to be defined on its own terms – and then linking the dominant terms with one particular sex, phallocratic culture was

constantly reproducing itself with every utterance or act of representation or description or story of itself.

As Helene Cixous wrote in her essay 'Castration or Decapitation':

...the whole conglomeration of symbolic systems – everything, that is, that's spoken, everything that's organised as discourse, art, religion, the family, language, everything that seizes us, everything that acts on us – it is all ordered around the hierarchical oppositions that come back to the man/woman opposition, an opposition that can only be sustained by means of a difference posed by cultural discourse as 'natural'²

For Cixous, this is an opposition founded in '*the couple*. A couple posed in opposition, in tension, in conflict.' To be aware, she continues, that it's the male/female couple that makes it all work 'is also to point to the fact that it's on the couple that we have to work if we are to deconstruct and transform culture.' (44)

The aim of feminist critique became, however, not to reverse these dichotomies, so that the repressed terms became the dominant or positive ones, but to collapse them: to find ways of representing the world that might operate on a different economy, and that can thus imagine a state of difference (sexual, cultural or any kind – different truths, for instance) that doesn't have to be defined within a hierarchical relationship of same/opposite (true/not-true) but can simply co-exist. That is, to find a way of thinking difference so that it doesn't have to be either the One or the Other, but can be represented as simply two, or more; and with each able to be defined on its own terms.

One of the more poetic explorations of the workings of these underlying dichotomies is found in the work of the feminist psychoanalyst, Luce Irigaray, who in her deeply metaphorical texts uses a strategy of re-reading western philosophy and psychoanalysis, borrowing from and adapting Derrida's deconstructive method.³

Irigaray draws a comparison between the way female sexuality is inscribed as an absence or lack within the phallographic heterosexual economy, which is capable of privileging or valuing only one organ on one kind of body, and the way the values and traits associated with femininity are likewise inscribed within phallographic discourse as merely an absence of the 'positive' traits. (Thus emotion, for instance, in western philosophy is usually seen as merely a lack of reason, and

always its opposite, and therefore incompatible with any reasonable discursive practice aiming at discovering truth.)

Furthermore, Irigaray argued that it was only by this exclusion or repression of the feminine (that is, values associated with femininity) that western philosophical discourse retained its systematicity, its sense of closure and logic. So that this exclusion is not accidental – or easily patched back in; indeed according to Irigaray the feminine could be regarded as the ‘unconscious’ of western philosophy, integral to its integrity, power and functioning.

It is important to see Irigaray’s work as metaphoric and disruptive or suggestive – a deconstruction of the performance of femininity within phallographic logic, rather than as a description of an essential femininity natural to or exclusive to one particular sex. Indeed, her notion that any systematic and logically coherent representation or theoretical model depends for its coherence on the repression of an Other or other views and perspectives could be used to critique feminism itself in its essentialist form. For it could be argued that feminism only retains its functioning as an ‘identity politics’ by repressing or subordinating other kinds of difference, such as cultural differences and those that don’t fit easily into a two gender framework.

Power and the inscription and performance of bodies within culture

Within post-structuralism, the body is understood as a cultural not (just) a ‘natural’ object; as something socially inscribed and produced ‘within a network of socio-historical relations instead of being tied to a fixed essence’⁴. And it is through this complex process of inscription and performance that the philosophical underpinnings of phallographic culture exist as a *material* power – a physical and productive power – not just an ideological one. Which is to say that we don’t just absorb the ideologies of patriarchy through our minds, but these are inscribed into our very being in the world through our relationships with our bodies.

The body, in this sense, in its ‘openness to cultural completion’⁵ is the ‘interface’ or point of contact between the political and the personal,⁶ with knowledge / discursive practices (or *thought*) as the dynamic link between power and bodies: that which ‘invests’, ‘contours’ and ‘animates’ them⁷.

If power (or culture) is in Michel Foucault’s terms, a complex strategical situation, a field of force relations, then the body is both an effect of this, and its vehicle.⁸ The body is both product *and* agent, with the interactions and relationships between the embodied subject and its culture as the means by which and through which both are produced simultaneously. For power is not simply

enacted upon individual subjects, but is involved in forming or constituting them in the first place; our subjectivity, for instance, formed ‘by virtue of having gone through such a process [as] “assuming” a sex.’⁹

Thus power exists in the things that produce us (and produce things for us), not just in the things which constrain or limit us; with the body not just an object of power, but a powerful object; each of us taking an active role in the inscription of both ourselves and others throughout our lives. For our identity or ‘self’ is not something we are born with, but something born out of a complex of recognitions, comparisons, exclusions, demarcations, divisions, alignments and realignments. We identify ourselves within a shifting field of images defined (made sense of) by language, and imbued with power relations.

Our bodies are also powerful (and objects of power) in the way that knowledge is extracted from them – via science and medicine, for instance, as well as through their centrality to the juridical process. This knowledge then works back onto bodies to invest them in a complex and dynamic process of continual exchange.

In Michel Foucault’s rendering, this power that operates on and through bodies exists as ‘a network of relations, constantly in tension, in activity,’¹⁰. Power is

not something that is acquired, seized, or shared, something that one holds on to or allows to slip away; power is exercised at innumerable points.

...Relations of Power are not exterior to other types of relationship (economic processes, knowledge relationships, sexual relations), but are immanent in them...

It is the moving substrate of force relations which, by virtue of their inequality, constantly engender states of power, but the latter are always local and unstable. This is the omnipresence of power: not because it has the privilege of consolidating everything under its invincible unity, but because it is produced from one moment to the next, at every point, or rather in every relation from one point to another. Power is everywhere: not because it embraces everything, but because it comes from everywhere.¹¹

Judith Butler¹² also looks at the body as an historically and culturally specific performance of materiality – as a discursive field in which discourse produces and marks (differentiates) what it names – rather than as a universal ‘natural’ or pre-given entity. In particular she looks at the way gender is regulated and produced through a complex process of reiterative performativity, a process that continually resignifies gendered and ‘heterosexual’ bodies as normative.

In this view, you don't walk like a man because you are a man, but to become one, constantly reinforcing (or reinscribing) your gender to yourself and others. Thus, Butler says, 'identity is performatively constituted by the very "expressions" that are said to be its results' (*Gender Trouble*, 25).¹³

The reiterative power of discourse – the relationship between bodies and knowledge – is further explored and played with in the work of Luce Irigaray. If phallogocentric logic 'reconstructs anatomy in its own image'¹⁴, Irigaray's tactic is to deconstruct this logic by choosing a different organ to represent female sexuality, one that operates quite outside of the phallocratic sexual economy which offers women the either/or of clitoris or vagina and (thus) the either/or of being represented as the opposite (complement) to the male, or the same (but inferior).¹⁵

While Iris Marion Young talks about breasts as 'a scandal' for phallic sexuality, being 'a multiple and fluid zone' of erotic pleasure¹⁶, Irigaray takes not the doubled breasts but another double, the 'two lips' as her focus, developing this into an evocative metaphor of transgressive expressiveness, in both speaking (discourse) and sexuality.¹⁷

The two vaginal lips (literally) embrace both the vagina *and* the clitoris, as well as each other. Always in touch, as a metaphor they provide a 'tissue of implications'¹⁸ for a new economy of sexuality (or knowledge) based on touch rather than penetration¹⁹. With touch there is no source or recipient, no one and then the other, no 'master' organ, no master(y) act. The sources of pleasure are diffuse rather than specific; multiple instead of unitary; not the property of one person or another but the shared product of an exchange.

In the words of Irigaray: '*You don't 'give' me anything when you touch yourself, when you touch me: you touch yourself through me.*'²⁰

Touch defines an economy of pleasures in which giving and receiving are one.²¹ To define sexual intercourse in terms of its tactility – and thus in terms of its carnal rather than its purely genital aspect – it becomes possible to begin to collapse the system of binary oppositions that define the heterosexual couple so that the self-other relationship becomes re-inscribed as one of *contiguity* rather than penetration, *recognition* rather than reconciliation, *adjunction* rather than possession, *difference* instead of opposition.²²

Irigaray's work is a strategy, rather than a theory of women's 'true' sexuality. It is not a description aimed at supplanting the prevailing view, or supplementing it, but a textual performance concerned to deconstruct it – to question its given-ness or 'naturalness': a glimpse of what might happen if you break open the closure of the representative process, if you can unfix the locks.

As a metaphor, touch takes us towards being able to collapse the dualities that underpin not just sexual expression and bodies, but all forms of relationship and knowledge. The body in touch with itself doesn't require a reflection from another, but is part of an interconnected and interdependent experience. As a metaphor, touch might provide a more productive image, perhaps, with which to approach questions regarding the materiality of the body, and the ways in which matter and consciousness are related.

In her thoughtful and evocative book, *Telling Flesh: the Substance of the Corporeal*, Vicki Kirby notes the tendency of some post-structuralist theorists to read the body as if it were only a surface. This 'somatophobia' or reluctance to go 'inside' the body, to think *through* it, she suggests, would seem to be yet another 'legacy of phallogocentrism's mind/body split'. It is as if:

the body is a dangerous supplement that we possess, or are possessed by. It is as if we are held hostage within the body, embodied, such that the site of self, the stuff of thinking and consciousness, is an isolate made of quite different matter.²³

Kirby also questions the way that 'human identity underpins what we mean when we say "the subject"' – that is, the assumption that only humans have consciousness, and are unquestionably and in all ways distinct from 'nature' (153 ff).

For many feminists and post-structuralists working in the humanities, science and biology have long been considered 'off limits' as a topic for anything other than cultural critique. There are two main aspects to this argument. On theoretical grounds: the materiality of the body is considered ultimately untheorisable (unknowable), because there is no culturally, geographically or temporally objective position from which to make valid or universal observations. (For instance, it is always gendered subjects studying gendered subjects.) On political grounds: as an historically essentialist activity science has often been used to explain culturally differential traits according to notions of a natural body or natural gender distinction, and thus could in the future be used (as it has been in the past) to justify differential treatments and expectations.

As such it can be a sensitive issue, and Kirby's description of the difficulties she faced when wanting to discuss questions usually associated with an endorsement of the science of bodies with her colleagues, struck a chord with me with regards to my own research for this project (1ff). For instance, I often felt caught between what I was reading in queer theory (and what was considered legitimate to discuss openly in academic circles) and what I was reading in writings by gender activists – who, for instance, often welcomed contemporary scientific explanations, or even spiritual explanations, for their mind-body experiences and felt that these were important.

But as Kirby points out, in a sense the debates about essentialism versus anti-essentialism could be seen as coming from the same 'place'. 'Where,' Kirby asks, 'is the evidence for either essentialism's error or anti-essentialism's truth to be situated, and in what does it consist?' (72) Indeed, she suggests that post-structuralist feminism and queer theory's rejection (and repression) of discussion of biology runs the risk of merely inverting the nature/culture opposition – and thus of playing into and repeating the split – rather than deconstructing it.

Kirby's book – along with the work of a number of other academic theorists in the past decade²⁴ – suggests that effectively deconstructing the nature/culture and mind/body splits would necessarily involve conceiving of the body as more than just a passive material surface for the inscription of culture, but as having its own cognitive input. That is, to look at 'the whole question of how matter and intelligence is paired'²⁵ might entail looking at the dynamic *two-way* conversation or relationship between nature and culture, mind and body, humans and the planet.

This rethinking of the notion of the body-mind, or the matter of matter – including the limits and definition of 'mind' or consciousness – is a question and exploration that is increasingly significant within science and especially medicine. As such was deeply relevant to my research on a range of issues raised by my topic such as difference and transgender, cancer therapies, and the implants controversy. It is also a feature of what could be termed the 'new ecological spiritualism' as influenced by a range of indigenous, pre-modern and East Asian spiritual traditions.

In the next chapter I would like to look at the three great paradigm shifts of the twentieth century – quantum physics, ecological spirituality, and post-structuralism – at what they might have in common, and the implications of this shift in thinking for understanding the nature and culture of embodiment.

**CHAPTER 3 –
THE MATTER OF BODIES
AND THE PARADIGM SHIFTS OF
POST-STRUCTURALISM,
QUANTUM PHYSICS AND
ECOLOGICAL SPIRITUALITY**

In his discussion of the possibility of a ‘new politics of truth’ Michel Foucault described truth as ‘a thing of this world...produced only by virtue of multiple forms of constraint.’¹ Rather than being something that exists outside of power and history, truth is both an effect of power and itself a producer of powerful effects.

Each society has its regime of truth, its ‘general politics’ of truth: that is the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true. (133)

In this chapter I would like to trace a brief history of the epistemological privileging of empiricism and materialism as sanctioned ways of knowing the world and understanding embodiment, and then look at some challenges to this dominant view in the form of quantum physics, spiritual ecology and post-structuralism. In doing so I would like to propose a different ‘political economy’ of truth, and the ways in which these shifts in beliefs and attitudes about bodies and knowledges have influenced my project.

The ‘Old Science’: Classical Materialistic Science and ‘Sciencism’

Classical Newtonian or ‘atomistic’ physics is still central to contemporary western medical or ‘allopathic’² practice, to medical and science journalism, and (hence) to popular notions of science and bodies. In general, this view continues to be presented as if it were the only possible valid one, and as if ‘science’ were a monolithic set of impersonal rules – a handbook as it were – for understanding the universe. Thus the phrase ‘what does science say about this?’ as a journalistic preface is likely to lead to a single definitive answer (the ‘actual’ truth) rather than to

a consideration of a range of opinions within a complex – and often politically charged – debate that changes over time.

In this sense, classical science is a form of structuralism – a search for, and belief in a set of representational keys, ‘as if the world were made to be read by man’³. As a ‘truth’ discourse operating within a system of classical logic, it has, arguably, an inherent tendency towards reductionism and positivism. Thus, in its extreme (but very common) version, it becomes scientific fundamentalism, or sciencism, where ‘scientific method’ (systematic empirical experiment and applied logical analysis) is regarded as a way to know things for *certain*; as the *only valid* way to know anything; and as ultimately (given enough time and experiment) the way to know *everything*.

In this view, anything not submittable to and demonstrable via scientific experiment and current scientific logic should be rejected, ignored or opposed as either wrong or as an unfounded – and potentially dangerous – belief.

This belief can also become circular: anything that doesn’t support or verify the current dominant scientific paradigm must by nature be ‘bad science’ or ‘junk science’, the product of a scientist who has lost his or her way, veered from the fold, and is no longer worthy of the title.⁴

This unshakable faith in a particular scientific paradigm and in scientific method itself (as a way of ‘reading’ the universe) is still deeply ingrained in western culture in such a way that it is rarely even recognised *as* a belief system, but is instead usually regarded as the very antithesis of, and indeed a potent antidote to belief.

Classical science is an extraordinary achievement, but it has limitations. The strength of classical science and empiricism is that it is good at reducing, abstracting, isolating, dividing, comparing, measuring, quantifying and categorising. Its genius is to take all variability and reduce it to constants; to determine single causes and single effects that were repeatable, predictable and controllable. However within the philosophical framework of binary opposites that privileges one way of ‘knowing’ as the dominant and, in effect, only way, it can become deeply oppressive and limiting.

As Elizabeth Grosz suggests, rationalism attempts to explain everything by reference to logic, reason and *mind*; empiricism attempts to explain everything by reference to the ‘hard’ evidence of *matter*. That is, each in its own way reduces mind and body to one or the other.⁵ And within an

economy of the same – an economy of the One truth – this is a One that cannot allow itself an independent, autonomous Other (211n) with which it could experience a relationship not based on dominance and control or repression.

The spirit/matter split and the body as ‘machine’

Popular notions of the history of science tend to put great emphasis on Galileo’s battle with the Christian church, but to gloss over or ignore the religious beliefs of Newton and Descartes, and the centrality to their theories of an assumption of the existence of a ‘God’ of some kind. (That is, a transcendent single deity that made the world rational, logical, and with timeless and universally applicable laws.)⁶

However one of the reasons Newtonian science flourished (whereas Galileo had such a struggle) was that the Cartesian mind/body split also facilitated a timely spirit/matter split. This meant that instead of being competing true discourses locked in battle (competing over the same territory), science and religion could by tacit agreement divide the territory up between them – with science being the arbiter on the material world, and the church having jurisdiction over the spiritual.⁷

As such the notion that science and spirituality are antithetical or at best complementary systems of thought (antagonistic, or benignly co-existing but not in any way inter-related) is a component of this historical demarcation, and of the mind/body split that enabled and fed it, rather than a pre-existing condition of these discursive practices.

Indeed in many ways the new scientific revolution of the early modern age could be seen as supplementing, reinforcing, benefiting from and consolidating the work of the Christian Church in repressing certain heresies.⁸ For insofar as they shared a basis in phallogocentrism, they increasingly constructed a public realm that disparaged and at times sought to forcibly repress or eradicate values and characteristics associated – via a set of structuring binary oppositions – with femininity, nature and the body. Witches and ‘Old Wives’ were not only linked to the heresy of the ‘Old Religion’ (paganism, pantheism, Wicca and goddess worship), they were also competitors in the healing arts with the rising profession of medicine, and with science in ways of interpreting, describing and engaging with reality.

Frances Bacon, the founder and passionate advocate of the empirical method, was also Attorney General for King James I, and the language he used to describe his new method of investigation was evocative for the times. Nature had to be ‘hounded in her wanderings’, ‘put in constraint’ and made a ‘slave’; with the aim of science being to ‘torture nature’s secrets from her.’⁹

After several hundred years of plague, crop failures, starvation and witch trials, the notion of nature as terrifying, devouring and evil increasingly resonated with Europeans, and the idea that with science we could ‘render ourselves the masters and possessors of nature’ as Descartes put it, was a seductive promise.¹⁰ In proclaiming this desire for control over the physical world as a pure scientific quest and in its ability to reduce, quantify and compare, it was also a system that dovetailed well with the needs of colonisation and the rise of capitalism.¹¹

As a ‘regime of truth’, science, like Christianity, exercises power which it also protects. Medical and scientific heresy is still a punishable offence although the methods are more subtle than those used by the Church during the Middle Ages. Heretics or dissenters (who advocate non-dominant ways of healing, or ascribe to theories or experiment on phenomena that are not compatible with the dominant scientific paradigm of reality) have for much of the last century been ridiculed, derided, harassed, ignored and denied funding, jobs, publication and influence.¹²

In the legacy of Classical Physics and the Cartesian mind/body split that is still the dominant medical model, the body is primarily seen as a machine made of replaceable and upgradeable parts that can wear out or become diseased. In this model the body is inert and passive matter, in itself neither intelligent nor sacred. Consciousness or mind is ‘the ghost in the machine’, and a function or product of the brain which is what controls the body, much as a computer might operate and electricity animate a mechanical device.¹³

The discovery of the role of micro-organisms such as germs and bacteria in the formation of disease, and the success of antibiotics in the twentieth century helped consolidate this view of the body as essentially passive, with disease as something that occurs as a result of an external invading force. Likewise, improvements in anesthesia and surgical techniques, and successes in repair and transplant surgery have reinforced the notion of the body as comprised of co-ordinating but fundamentally separate parts that are subject to wear and tear.

These and other successful applications of Newtonian science have contributed to its power, particularly in the twentieth century. In this model, effective medicine is about heroic intervention by a body expert (or ‘body mechanic’) and the timely use of a piece of medical technology (such as a pharmacon or technique). The doctor, or the pharmacon, is the healer, with the patient or client having little or no role except to comply and not interfere with what the doctor orders.¹⁴

However, as the twentieth century progressed it became clear that there were also a large (and increasing) number of illnesses and diseases that were not successfully treated by this form of medicine and this view of the body.

Challenges to the dominant model include the continued absence of the promised cure for cancer despite billions of dollars in research and many decades focussed on the problem, and the failure to produce ‘magic bullets’ for the increasing number of viral agents or even for something as ubiquitous as the common cold. Another challenge is the number of unwanted and often serious side-effects from treatments and practices favoured by orthodox medicine; indeed the frequency of this has required a new word – ‘iatrogenic’ – to be coined specifically to refer to illness directly caused by medical intervention. Other factors include the emergence of ‘superbugs’; the rise of a new generation of chronic debilitating illnesses for which orthodox medicine has little or no effective treatments nor any coherent explanation (indeed, illnesses such as Chronic Fatigue Syndrome for many years were regarded as being purely psychological precisely because they were unable to be explained within the dominant model); and, in the wider scientific world, the failure of the Green Revolution and the loss of faith in new wonder chemicals such as DDT.

As a result, after a period of almost unquestioned dominance, in recent decades there has appeared a resurgence of interest in ‘alternative’ or holistic views of bodies and health.

Ecological (holistic) views of the body, models of dis-ease and the self/other duality

In contrast to the mechanistic view, ‘alternative’, ecological or holistic notions of the body regard it as fundamentally inseparable from ‘mind’, with the mind-body inter-related in complex and dynamic ways, many of which we do not yet understand and which cannot readily be measured using existing classical methods.

Empirical scientific methods are based on isolating and testing one causal factor at a time, with the other ‘confounding’ effects either eliminated, neutralised or accounted for in some way; whereas holistic views regard the complexity of factors and their synergistic effects in a wide range of contexts as vital.

Holistic healing models generally regard the body as having innate intelligence and a profound ability to self-heal, and thus give a much more active role to the patient. The role of the professional is largely to seek and provide information and – in partnership with the client – to facilitate and support the body to utilise its own powers to self-heal. This might be by removing as

many blockages, obstacles and confusions within, and unnecessary stresses upon, the body-mind system as possible and by generally strengthening it.

Complementary medicine is a strategic combination of these views and methods, regarding orthodox medicine as not necessarily wrong, but limited. Thus one might support the body by giving antibiotics to reduce the bacteria load, or by surgically removing a cancerous growth, and also give herbs to boost the immune system, thus allowing it to then self-heal.

Maddie's use of complementary medicine in the novel (herbs and surgery, for instance) is thus more than just a consumer choice, but is tied to a deep philosophical shift in the ways in which we view ourselves, our embodiment, and our relationship to the ecology of the planet.

In her book *The Alchemy of Illness* Kat Duff explores the meanings of illness across different cultures and historical periods, and argues that western allopathic medicine is unique in seeing disease as meaningless, having no value in an individual's life or in the cultural life of a social group.¹⁵ In allopathic medicine disease is an irrational condition that is completely extraneous to the normal operation of bodies, which are seen as having clear and finite boundaries and self-integrity. Thus a disease is generally imaged as a foreign hostile agent or condition requiring removal or cure to return the body to its original state of health. (The dominant metaphor here is the body as a separate country or state under attack, with the treatment aim being to repel or destroy the invader to eliminate the problem.)

There is the potential within the holistic view, however, for a much more complex and fluid notion of the body-mind (or body-mind-spirit) and its strategic boundaries. This includes the concept of the 'non-local' mind – the idea that the mind or consciousness is not synonymous with or contained within the physical brain, but can and does extend beyond the body boundaries¹⁶ (indeed, rather than the brain producing consciousness, this idea suggests that consciousness might produce the brain). And it includes the body-mind's relationship to both the smaller and larger aspects of 'itself' – to individual cells or permanently resident organisms on the one hand (the billions of bacteria, for instance, that make up a significant proportion of our bodies) and the planet on the other.

In this holistic or ecological view, health is not the *absence* of disease agents (or threats), but *balance*. Here the individual 'body-mind' is a strategical entity interdependent within a wider universal body-mind (the super-organism of which the individual body-organism is one part, itself likewise made up of billions of interdependent systems), and there is thus logically no 'outside'

for disease agents to attack 'from'. As such, at its deepest level this model both requires and makes possible a view of disease agents (when the overall system is in balance) as being one aspect of the superorganism that is able to be utilised by another aspect (the body-mind) in its process of evolution, change, and continual seeking of homeostasis.

In this model then, the role of healing is not simply (or not always) to return the individual to his or her previous pre-illness state, but might be to help them move through the illness to a new state. To move to greater wisdom and insight, for instance; or a physical illness may become the precipitating factor or catalyst for healing old psychological wounds.

As one writer put it, in this system of knowledge, 'disease in the superorganism's elements is a force that manifests a crisis in the superorganism itself. Disease is a message that can help the superorganism deal with the crisis and reconfigure itself.'¹⁷

In my novel, Maddie is a student of Aikido – a defensive martial art which derives many of its underlying principles from Buddhism and a belief in the interconnectedness of all things. Thus her challenge when diagnosed with cancer is to turn towards it, and learn from it, rather than simply try to annihilate it (bombing it with toxic chemicals). Rather than trying to defend and maintain an existing position, Aikido teaches her to use the energy of the incoming conflicting force to move to a new and better position while also neutralising its harmful effects.

...

For while the ‘war on disease’ metaphor favoured within allopathic thinking prefers to posit a clearly definable outside enemy, in the holistic model if cancer is a war, it’s a civil war. And when a war must be fought on home territory, the orthodox approach which seeks to identify and quickly destroy the attacking agent often puts the whole body into a position of danger or siege. (The infamous ‘bombing a village in order to save it’ of the US-Vietnam war days, or the current controversial approach of taking away civil rights in order to ‘protect’ citizens.)

Within a holistic or ecological view of bodies and illness, cancer is not an invading force, but a mistake made by the body’s own cells. A mistake in an individual cell that has mutated and then begins to rapidly divide, and a mistake in the healthy functioning of the immune system which normally cleans up and destroys mutated cells before they proliferate. Here, the logical task while neutralising the cancerous cells is also to look closely at what is occurring within the body-system itself – what has gone out of balance. That is, to ask what fundamental aspects of the system and the way it is currently operating does this symptom indicate might need to be changed?

A holistic approach would also look at the long-term costs and benefits to the overall health of the body – and thus its ability to resist not just this but future problems – of the various methods or strategies contemplated. For instance, chemical agents which are unable to effectively discriminate between healthy and unhealthy cells, and which could weaken the body overall, would thus obviously be a last resort if used at all; while strategies that boost the body’s general immunity and functioning and repair its relationships to other systems and the wider ecology would be favoured.

In the novel I have juxtaposed Maddie’s interest in the philosophy and practice of Aikido with images and memories from the Vietnam War. As with war, ‘successes’ tend to strengthen the public dominance of a particular model or strategy, and failures weaken it. In the twentieth century, a number of striking successes for the allopathic approach – such as the virtual eradication of small pox, the discovery of anesthesia, penicillin and the synthesising of analgesic agents – have helped make the goal of eliminating disease and suffering almost unquestioned as the ultimate (and entirely feasible) goal of medicine and the scientific project in general.

However this search for control over nature has also led to extreme levels of unhappiness, starvation, ill-health and pain within the world’s population, not to mention environmental damage on a scale unimaginable in the past. Indeed the long-term effects of allopathic/classical attempts to alleviate or eradicate suffering perhaps mark the differences between this and the ecological-holistic views most clearly. An ecological view would predict that a project of continually dividing the world and its effects into a binary system of desirable/undesirable and

then seeking to repress, control or eliminate the latter is always going to create problems in the long run, however successful it may appear in the short term.¹⁸

Nevertheless, in the centuries after Newton laid the foundations for the classical scientific model (and classical model of the body), it had a long series of incredible successes and became extraordinarily powerful. Everything seemed to be explainable by it, and its predictive ability constantly enabled new technologies and inventions that changed the relationship of humans to their environments, including their relationships to each other.

The ‘New Science’: Quantum Physics

However, towards the end of the nineteenth century and throughout the twentieth, experiments began to be devised that enabled observation of sub-atomic particles, and these showed surprising interactions and states that couldn’t be made to accord with classical physics. It seemed that at the subatomic level (the level of the ‘quantum’ – or the space within and between atoms) the perfectly predictable machine-like material universe might in fact be something much more subtle, complex and flexible than classical physics could allow.

What follows is a brief overview of some of the key findings of quantum physics that have implications for epistemology in general and for our understanding of materiality in particular.¹⁹ For if, as I have argued, classical physics is a form of structuralism, quantum physics, as a form of post-structuralism, may be able to offer some valuable insights for post-structuralist feminism’s project of deconstructing the mind/body split.

Quantum physics is also important to this discussion of the influences on my research directions and outcomes in the novel in the way that it offers a form of scientific support (albeit tentative and contentious) for many of the tenets and practices of holistic medicine, especially insofar as these are influenced by eastern, indigenous and premodern traditions of knowledge and spirituality.

Three of the key observations that underscore the new physics are the wave/particle paradox, Heisenberg’s Uncertainty Principle, and Bell’s Theorem.

The wave/particle paradox and the dual nature of light

The wave/particle paradox concerns the way that it is possible to demonstrate that light (or more generally, electromagnetic radiation) is a wave, and yet it is equally possible to demonstrate that it is a particle, even though within classical physics these are two mutually exclusive properties. Indeed, even though one excludes the other, both are needed in order to understand light.²⁰

As light produces the interference phenomenon, it must be wavelike. Yet (using a different experiment) it also produces the photoelectric effect, so it must be particles (that is, solid). It depends entirely on the choices made by the observer (what instruments or experiment is used) which aspect it will manifest.

Which is to say that the perceived reality of the phenomena depends on what you are looking for, and how you look.

Heisenberg's Uncertainty Principle

In classical physics, in order to apply Newton's laws of motion to an object (some would say, even to know that an object *is* an object²¹) we need to know both its precise initial position and its momentum. However at the subatomic level we can never accurately measure both the position *and* the momentum of a moving particle. Indeed, the very act of observing a moving particle changes it.

The more we confine a particle to observe its position, the more uncertain, or less defined, its momentum becomes as a result. While if we affect it so we can track the momentum, then its position becomes uncertain.²²

At a macro or gross level we can make measurements that are close enough not to matter, and so the cornerstones of classical physics – causality and predictiveness – are generally effective. But at the subatomic level – with such minute particles moving at such high energy – the time it takes to shift from one form of observing – or one *concept* of the object – to the other is so significant that a precise measure of both qualities is *in principle* impossible.²³

The Uncertainty Principle, for which physicist Werner Heisenberg was awarded the Nobel Prize in 1931, is the mathematical expression of this relationship of uncertainties. It also suggests that we have to rethink our relationship to what we perceive as 'reality'. Classical physics regards the world as being able to be broken down into smaller and smaller component parts that can be objectively observed. But at the subatomic level, it seems that these parts can't be observed without changing them in one way or another – without making a decision about *what* will be observed, or what quality will be made to manifest.

'What we observe,' Heisenberg wrote, 'is not nature, but nature exposed to our method of questioning.'²⁴

Or as Fritjof Capra describes it, ‘The properties of subatomic particles can only be understood in a dynamic context; in terms of movement, interaction and transformation’, as ‘a fundamental “restlessness” of matter’.²⁵

At this level then, knowledge always has a level of uncertainty or contingency about it (contingent on the observer’s position, intention and choice of observational tools); is always an approximation, a purposeful compromise: our ‘knowledge’ and our ‘reality’ inextricably linked in an interactive and consensual relationship.

Or as physicist John Wheeler commented: ‘One has to cross out that old word “observer” and put in its place the new word “participator”. In some strange sense, the universe is a participatory universe.’²⁶

Bell’s theorem

Fundamental to classical physics is the idea of the universe as comprised of spatially separate parts joined by local connections, with the parts determining the operation of the whole through a series of physical (i.e. local) causes-and-effects that operate as immutable laws. It was this view of universal objective and predictable reality that Einstein refused to give up, even though his theories of relativity and his early experiments with light fed directly into the development of quantum physics. Einstein remained convinced that hidden local variables would be discovered to explain the apparent contradictions to these laws, such as that involved in the EPR (Einstein-Podolsky-Rosen) thought experiment.

The EPR paradox as proposed by Einstein regards a thought experiment in which twin protons are given matching opposite spins, so that their total measured spin is zero. If one changes direction or speed when measured, the other must change too so that the spins continue to match oppositionally. What was unexplainable was that, within the theory of quantum mechanics, no matter how far apart the protons were located (whether separated by a few metres or by millions of kilometres) a change in one would instantaneously result in a corresponding change in the other.

In classical physics no signal can be transmitted faster than the speed of light, and yet in quantum physics this change in the twin proton’s spin would always be instant, regardless of how vast the distance between them (one proton could be on earth and the twin in outer space and the theory was that this would still happen).

The EPR paradox (or ‘spooky action at a distance’) suggested for Einstein that there was a missing variable yet to be discovered to explain this, or that quantum theory was simply wrong.

For David Bohm, however, who further developed the experiment towards making it testable in the 1950s, what it suggested was that there must be some deeper (superliminal) level of communication, interconnection and interdependence between the protons that is beyond what can be explained in terms of classical physics and local effects.

In 1964 John Bell published his mathematical proofs that showed that if the statistical predictions of quantum theory (based on this notion of the existence of such superliminal interconnections, or ‘irrational’ behaviours – behaviours that go outside the laws of classical physics) are actually correct, then the fundamental principle that there must always be local causes must be false. As the statistical probabilities or predictions of quantum physics were subsequently shown to be consistently accurate, not just in the microscopic but also in the macroscopic world,²⁷ some see Bell’s Theorem as, in effect, the final nail in the coffin of the deterministic world-as-machine view of the universe. In 1975 physicist John Stapp described it as ‘the most profound discovery of science’.²⁸

Since that time, the EPR paradox has been demonstrated as technology has become available to test it.²⁹ Indeed, the increasing weight of evidence – derived from applications of quantum theory – continues to support the existence of a system of ‘non-local effects’, a web of connections, a fundamental interdependence that informs and underlies all the apparently separate components of the universe.³⁰

The Copenhagen Interpretation of 1927 and the idea of a relational, interactive universe

The Copenhagen Interpretation, formulated by a meeting of a group of physicists in 1927, said in effect that quantum theory is about ‘correlations’ in our experiences. It is about ‘what will be observed under specified conditions’³¹ – as opposed to what ‘is’ in some kind of objective ultimate way existing apart from our observations and participation.

An essential feature of the Copenhagen Interpretation was Niels Borh’s principle of complementarity: that reality is relational and interactive. For these physicists, the only way light can be explained as both wave-like and particle-like is that these are not properties of light ‘itself’, but of our *interactions* with light.³² In this view, observer and observed are always related in dynamic ways; there is no external world available to us to be measured and observed without our

changing and influencing it by that measuring and observation. Indeed, it could be said that it is only through a complex of interactions that what we think of as ‘reality’ comes into (or gets its particular) being.

‘Tendencies to exist’

The smallest object we can see under a microscope contains millions of atoms. But the next step down to subatomic particles reveals that what we think of as solid objects are predominantly empty space. To get an idea of the scale of subatomic particles – the amount of space between the particles that make up an atom – Gary Zukav presents the following image:

‘The dome of Saint Peter’s basilica in the Vatican has a diameter of about fourteen stories. Imagine a grain of salt in the middle of the dome of Saint Peter’s with a few dust particles revolving around it at the outer edge of the dome. This gives us the scale of subatomic particles.’ (57)

However, Zukav continues, a subatomic particle is not an object like a speck of dust. It is a ‘tendency to exist’ or a ‘tendency to happen’ (57). At the subatomic level ‘mass and energy change unceasingly into each other’ (58).

In this view, contrary to what was assumed within classical physics, the world cannot be decomposed into its smallest units or base building blocks. At the smallest level there are no objects, only what could be conceived as ‘tendencies’ – tendencies to occur – and which become performed a certain way when they interact with an observer. Which is to say that observation is a part of the process whereby things assume their thingness as such.³³

**The quantum soup, the Real, the Impossible,
and the ‘implicate order’ of eastern spiritual traditions**

In reading this view of quantum physics, I am reminded of Slavoj Žižek’s image of the Lacanian notion of the Real through his description of a scene from a science fiction story. In this a man is in a car and as long as he looks through the window he sees the world as usual, but if he winds the window down suddenly and terrifyingly the outside reveals itself as the unfiltered, unedited Real (the Impossible): a ‘grey and formless mist, pulsing slowly as if with inchoate life’.³⁴

Deepak Chopra says: ‘It’s as if, behind your back, there’s a constantly flowing quantum soup, and the moment you turn and look, it’s transformed into ordinary material reality through the projection of your consciousness.’³⁵

Or David Bohm: ‘All matter, including ourselves, is determined by “information”. “Information” is what determines space and time.’³⁶

While in Hinduism the material world is ‘Maya’: an illusion. And in Buddhism, ‘Dharmadhatu’: the emptiness of phenomena. ‘All phenomena,’ writes Tenzin Palmo, ‘although they exist on the relative level, are devoid of inherent existence. They exist only in dependence on causes and conditions.’³⁷

Physicist David Bohm, working from the implications of Bell’s Theorem, suggests that as well as the ‘explicate order’ that operates at the atomistic level, and which we can measure and track as a system of individual separate local causes and effects, there is also at a deep level a (hidden) ‘implicate’ order: where everything involves, is connected to, and is ‘enfolded within’, everything else.

Bohm uses the metaphor of a hologram to depict this ‘unbroken wholeness’ that he sees as the fundamental structure of the universe. A hologram is a three-dimensional image created and viewed with the aid of lasers and which – unlike an ordinary two-dimensional photograph – is by nature indivisible. If you illuminate only one section of a hologram, it contains within it all the information of the whole but in less intense detail. So if you have a hologrammatic image of a human body and tried to separate out the head or an arm, or the area around the heart, you would still end up with an image of the whole body.³⁸

Bohm’s work provides just one example of where quantum physics meets eastern spiritual traditions. For Bohm, ‘everybody not merely depends on everybody else, but is everybody else.’³⁹

As Fritjof Capra suggests, ‘...Eastern thought, and more generally, mystical thought provide a consistent and relevant philosophical background to the theories of contemporary science,’ both conveying ‘the unity and interrelation of all phenomena and the intrinsically dynamic nature of the universe.’⁴⁰ Capra quotes the Tantric Buddhist Lama Anagarika Govinda: ‘The Buddhist does not believe in an independent or separately existing external world...The external world and his inner world are for him only two sides of the same fabric, in which the threads of all forces and of all events, of all forms of consciousness and of their objects, are woven into an inseparable net of endless, mutually conditioned relations.’⁴¹

Likewise, said a Japanese Zen master upon attaining enlightenment: ‘I came to realise clearly that Mind is not other than mountains and rivers and the great wide earth, the sun and the moon and the stars.’⁴²

Other physicists who noted this similarity include Heisenberg, Niels Bohr and Julius Oppenheimer, as well as a host of contemporary scientists and biologists⁴³. Oppenheimer wrote in 1954: ‘The general notions about human understanding...which are illustrated by the discoveries in atomic physics are not in the nature of things wholly unfamiliar, wholly unheard of, or even new. Even in our own culture they have a history, and in Buddhist and Hindu thought a more considerable and central place. What we shall find is an exemplification, an encouragement and a refinement of old wisdom.’⁴⁴

While quantum physics may still be largely unknown outside of physics departments, many of these ideas have strong connections with those that have emerged in the latter part of the twentieth century in the form of a spiritual ecology, or in the notion of the ‘New Age.’

The spiritual ecology of the New Age

The chief characteristic of the ‘New Age’ of spiritual ecology is not the newness of the ideas themselves – which are generally either influenced by or actively drawn from a diverse range of East Asian, pre-modern, indigenous and subaltern spiritual traditions. What is marked about the New Age is a resurgence of these ideas in this specific context: as a global cross-fertilisation occurring at a time when there is also a highly evolved technological and scientific culture, and within a capitalist and deeply individualised social system.

As a loose umbrella term, ‘New Age’ is a way of describing elements or tendencies common to practices as diverse as ‘alternative’ or holistic healing modalities (extending from and into psychiatry, psychology and medicine), Shamanism, Wicca, Paganism, the Goddess movement, the Modern Primitives⁴⁵, the Bioneers (a term coined to describe a range of scientists, engineers, economists and futurists who use ecological principles)⁴⁶, Deep Ecology, and spiritual ideas from Indigenous and Asian traditions.

As such it could be described as a return of the repressed – the mystical, the feminine and the queer – the outside of the slash that separated the rational from the irrational, culture from nature throughout the modern scientific age.

There is a range of historical factors contributing to this ‘return’, or shift in thinking.

The counter-culture, hippie and feminist movements of the 1960s and 70s led to a more general questioning of authority, a greater openness to subjective experiment, and increasing numbers of people involved in both parenting and public life, hence a breakdown in the strict division between these spheres, and more seepage of personal experience and authority from one to the other.

Another factor is globalisation and the greater availability of cross-cultural travel, as well as the influence of Indigenous rights movements and the way these connected with both political and ecological activism, and academic post-colonialism. This often posed a deep challenge for left wing atheists who were concerned to recognise Indigenous knowledges and perspectives after centuries of paternalistic dismissal, and were thus also forced to seriously take on board spiritual notions.

As mentioned previously, the increasing recognition and experience of the limits of allopathic (orthodox) western medicine to understand and treat an ever-growing range of chronic health problems, and the discrepancies for many people between their own experience and what they are told is possible and impossible also continues to fuel the spread and uptake of New Age ideas; as does the growing popularity of practices such as yoga (often described as the marijuana of spirituality – the harmless-seeming activity that can spark a gradual process of change in the unsuspecting western rationalist).

Awareness of the down-sides and environmental destruction caused by the achievements of modernity and post-modernity has also given strength to the arguments for more holistic, ecological ways of looking at the world.⁴⁷ Ideas and information coming from the new (quantum) physics, chaos theory, and models such as James Lovelock's *Gaia* thesis continue to be influential.⁴⁸

As a movement or force, the greatest strength of the New Age movement – anti-authoritarianism and the valuing of subjective experience – is also its greatest weakness.

As a populist movement with diffuse intellectual roots and influences and no unified philosophy, central organisation or hierarchical means of legitimation, it's openness to new ideas and experiment can often manifest (or be interpreted) as 'anything goes' and the issue of quality control can become fraught. This is especially so when who does the controlling, what measuring

techniques, and what indices of quality (or ‘truth’) are to be used are all questions at the very heart of the New Age critique of western empirical reductionism.

While many of the theorists of New Age philosophy have scientific backgrounds or current practice of some kind, and many work from within universities or medical research institutions, anything currently defined as ‘paranormal’ within the dominant scientific understanding tends to be viewed as a form of religion – based on faith rather than experiment and theoretical reasoning – and within the mind/body, matter/spirit split as the very opposite to reason. As such anything associated in any way with the phrase ‘New Age’ has tended to be viewed with deep suspicion if not active hostility within academia.⁴⁹

For instance, while polls show that the majority of people in western countries express belief in some kind of paranormal phenomena (such as telepathy or clairvoyance) – and that this percentage increases with the level of education – in contrast, less than two percent of psychology departments in universities have even one faculty member engaged in serious research about paranormal phenomena.⁵⁰

The New Age movement further tends to be regarded as tainted because of the way it has developed within capitalism as a key marketing category, with a plethora of saleable products and services. It is also often rejected as fundamentally apolitical because of its interest in individual advancement, despite the connection with environmental, anti-materialist and global activisms, and the 1960s feminist redefinition of the personal as political.

As with any field of endeavor, discipline or loosely connected movement, the quality and sophistication of the writing and research in this area, as well as the political engagement of proponents and their ideas varies. To hear ‘as the New Agers would say’ or ‘New Agers believe’ is every bit as frustrating as hearing ‘Feminists say’ or ‘the post-structuralists believe’ or ‘science tells us’, as if these are all monolithic or monochromatic systems of thought.

As a paradigmatic or post-structuralist shift (from the structuralism of mechanistic or classical science and the structuralism of theism), there are a number of common elements to the disparate ideas contained under the umbrella of New Age or spiritual ecology. These could be described as follows: an emphasis on the whole rather than the parts, a belief in the connectedness of all things, a valuing of subjective knowledge and an openness to information acquired through means other than reason or empiricism, and a high regard for the metaphysical or non-material. It also would tend to see the body (and all matter) as not only intelligent (as opposed to inert and passive) but

also sacred (that is, the divine as existing *within* all material creation rather than as either separate from it, or non-existent).

The sixth sense, the ‘paranormal’, and the evolving quantum Self

The context from which these ideas are viewed or approached, however, is vitally important. If merely grafted onto liberal humanism, for instance, the emphasis on personal-development can become individualistic and self-serving, and often reduced to a justification for capitalistic greed or selfishness.

In the context of either (or both) quantum physics and the Eastern spiritual traditions, however, the notion of the connectedness of all things and responsibility for one’s actions as (at some level) a participant in the creation of reality requires a subtle but crucial shift in the very definition of ‘self’. It is this shift – to seeing the distinction between ‘self’ (the ego or personality: the self as manifest and constructed in this life), and ‘Self’ (the ‘Higher Self’ or part that connects into the quantum field: the essential part that is not merely interdependent with everything and everyone else, but at some level *is* everything and everyone) that generally takes a lot longer to grasp for those not born into such a tradition.⁵¹ But it is this shift towards a notion of Self that is intrinsically connected with or one with everything else in the universe which allows a move beyond the self/other duality. And it is this – together with the related view of the intelligence and sacredness of all life-matter – that is the most radical aspect of this philosophy.

Quantum physics – via reference to the implicate order or ‘hologramatic universe’, and in recognising western notions of time-space as fundamentally illusory – can also help to provide a foundation for understanding ‘paranormal’ or ‘para-psychological’ activities and phenomena.

Tenzin Palmo says that Buddhism sees us as having not five but six senses, with consciousness regarded as the sixth sense.⁵² This idea suggests that consciousness is able to gather information directly (from the spiritual universe or quantum field) and not just process information brought to it by the other (physical) senses. That is, that it is possible for the Self to have access to informational fields beyond what can be known by the self, or beyond the self’s individual experiences – through touch, taste, smell, seeing and hearing – in this life.⁵³ Or to put it another way: that the mind has the potential for non-local action, influence and knowledge gathering.

The New (Post-modern/Post-structuralist) Age

In many ways it is perhaps more appropriate or useful to think of the ‘New Age’ as an era or epoch – an Age that we are currently ‘in’ or increasingly creating – than as an ‘ism’ with a set of

adherents and opponents. A useful comparison here might be to the post-modern, which makes far more sense as an ‘age’ – that we are in whether we like it or not – than as a philosophy or belief structure (with ‘postmodernists’ and ‘others’). Or even with feminism, which has inevitably left its mark on the entire culture, not just on those who agree with its major tenets. In this sense we (and my characters) are all in the New Age – or the point where the New Age and the Scientific Age overlap – and experiencing or affected in various ways by a cultural rethinking of ideas, achievements and values of the Scientific Age, and materialism in general, across a wide range of fields. The ‘eye-rolling threshold’ might differ for each of us, but even the most hardened opponent, in having to oppose, is nevertheless a participant.

It is as a major cultural paradigm shift and critique of positivist epistemologies and notions of objectivity that quantum physics and the new spiritual ecology share a number of traits with post-structuralism.

Post-structuralism likewise tends to regard reality (as opposed to the Lacanian concept of ‘The Real’) as a construction – an effect of certain complex shifting relationships and structures of exchange within a society – and hence, as changeable.

The search is not for truth, or origins, but for an understanding of how something works in a particular context or moment; for probabilities or habits, truths rather than Truth; for strategic maps rather than grand-all-encompassing narratives.

There is less distinction in post-structuralism between ‘primary’ and ‘secondary’ sources: every text (such as a work of theory) can be read as a primary text, and every text (such as a document from an archive) is also an interpretation. Representative systems – such as science, history, art, economics, politics, philosophy, religion – both reproduce and create as they describe. And every text is open-ended, variable and changing: produced by the way it is inserted into and transmitted through seemingly endless processes of cultural exchange.

The following is a brief summary of some of the elements that could be considered common to these shifts – of post-structuralism (from structuralism), quantum physics (from Newtonian or classical physics and the Cartesian mechanistic world view), and ecological spirituality (from monotheism or atheism). These shifts don’t cancel, repudiate or replace the previous paradigms (setting up a new truth in place of the old one), but are strategic engagements with these earlier ideas, revealing their limits, and valuing what they had repressed or disowned. The common elements of these three movements of post-structuralism include:

- the notion of a subjective participatory universe – rather than that of an independently existing reality that can be objectively and accurately detailed, measured and described through language, logic, empirical experiment, reasoning and mathematics
- (thus) the idea that to some extent we shape and create the world when we detail, describe and otherwise engage with it
- a questioning of singular concepts of truth, meaning and representation, instead allowing for multiple, co-existing and not necessarily reconcilable truths – in contrast to the law of (logical) non-contradiction
- a notion of values, ethics, politics, relationships – rather than ‘disinterested’ truth
- a tendency towards specific, fluid, contextual, relationship-centred (and hence value-driven and purposeful) knowledges – rather than reducible, repeatable, static ‘objective’ (object-centred) knowledge
- a more fluid notion of subjectivity (the self, with a small ‘s’), as constituted by relationships with others, and (as such) as fragmented, shifting, constantly in process, constantly performed or narrated within particular contexts – rather than as an individual and unified essence
- complex processes within a field or network – rather than linear causes and effects
- an interest in complexity and specificity – rather than reductive models; diversity and difference – rather than sameness; dynamic inter-relations – rather than prediction and control
- a sense of power (or divinity) as everywhere and in everything – rather than as external, top down and hierarchical.

**Relational or purposeful knowledges:
towards a new political economy of truth**

In writing a novel which touches on so many issues of scientific concern (the basis of gender differences; the causes of transsexualism; the best medical practice for diseases such as breast

cancer; the truth about the safety or otherwise of breast implants; the value of breastmilk and the science or art of breastfeeding; the facts of menopause; the eradication of suffering or the exacerbation of it through genetic engineering and body modification; the damage caused or the damage spared by wearing bras; and so on) I have found myself concluding that there are no fact-based paradigms versus faith-based ones. All paradigms are belief systems (including this one).

As Feyerabend put it in his 1975 exercise in *reductio absurdum*, ‘How To Defend Society Against Science’: ‘Theories cannot be justified and their excellence cannot be shown without reference to other theories.’⁵⁴ So even the use of logic or empirical method to determine truths about the nature of the universe is predicated on a theory, or belief, that the universe is logical, empirical, and objectively observable.

While science is generally believed to be a distinct case in epistemology in being based on ‘hard’ evidence, empirical scientific evidence is often ignored, dismissed, or overridden if it goes against the accepted model of how things work⁵⁵; and the results of empirical studies can often be contradictory. In medicine, in particular, it often seems that for every study showing one effect of a particular treatment or agent, there is another showing the opposite.⁵⁶

Indeed a study involving medical anthropologist and researcher into parapsychology, Marilyn Schlitz and member of the British Skeptics, Richard Wiseman, suggests that all other things being equal (or identical, as in this study) the universe is so accommodating to our wishes and intentions that to some extent – especially with more esoteric phenomena – we each find what we believe it is possible to find, or what we intend to find.⁵⁷

Evidence is just evidence – it is invaluable, especially when sifted, examined, analysed, deconstructed and backed up from a number of sources and angles – but it is not proof. It must still be interpreted within a theory or model.

Even mathematical ‘proofs’ are contingent. As Einstein commented, ‘As far as the laws of mathematics refer to reality, they are not certain; and as far as they are certain, they do not refer to reality.’⁵⁸

We cannot prove anything sufficiently to define universal laws that exist across cultures, space and time – but we can define working models, compromises, probabilities, and habits. Which is to say that ‘proving’ something is both a subjective – or intersubjective – and purposeful activity: you prove it to your satisfaction so you can make decisions, which are always, on principle, going

to have a level of uncertainty about them, are always to some extent going to involve a 'leap of faith'.⁵⁹

As such our knowledge is always an approximation, always relational and contingent and purposeful (that is, relative to, or contingent upon our purposes and experiences). And our knowledge is also ultimately – at least to some extent – a choice.

'The undecidability of the decision' and the era of the aporia

In his book, *Refiguring History*, Keith Jenkins draws on Jacques Derrida's notion of the 'undecidability of the decision' as one of the hallmarks of the post-modern age. As Derrida puts it, 'Inheritance is never a given; it is always a task. It remains before us.'⁶⁰ In Derrida's terms this is the era of the 'aporia', a condition of being in which we must constantly make decisions but without any of the old secure foundations of certainty. All of our values, beliefs, interpretations, representations, ethics and political actions are subject to the 'undecidability of the decision', the impossibility of knowing anything for certain any more except that every decision (every choice) will have consequences; that every moment of decision (or indecision) is an act of violence, to a greater or lesser extent, to or upon another. For in the same way that nothing can be completely true (there being no objective vantage point outside of the flux of existence for an ultimate truth to exist), no decision can be completely just; everything is always subject to endless possibilities of revision and contestation, always in a state of play and openness.⁶¹

The absence of a firm objective empirical foundation for knowing anything can be extremely disconcerting and threatening, or it can be liberating.

A controlled system for the production and legitimation of knowledge, policed and vouched for by a hierarchical system of specialists and authority offers a sense of security (whether this is comprised of religious leaders or of sciences operating within universities and hospitals and using an allegedly infallible 'scientific method'). But if there is violence in the undecidability of the decision (and in the unpredictability of populist forms of knowledge, which are a two-edged sword that can be extraordinarily reactionary, or extraordinarily radical), there has also always been violence in institutionalised and positivist systems of knowledge.

To live in the era of the aporia means that we can no longer (or should no longer) abdicate all decisions and values to rationalism, but that we need to take responsibility for assigning value and meaning, as individuals and as communities.⁶²

Indeed, post-structuralism only leads to an ‘anything goes’ apolitical amorality if you still see logic (or truth) as the primary reason one adopts a point of view or takes an action, rather than logic mixed in with beliefs, values and feelings, which arise from experience.

Relative truths are about relationships. Without recourse to a belief in objectivity, knowledge becomes not so much subjective, as inter-subjective; and in the absence of a unified notion of truth, an alternative concept could be ‘purpose-driven’ knowledges.⁶³

However in order to develop good relational and purpose-driven knowledges, feelings (including spiritual feelings) need to be given a stronger role, and need to be theorised more.

Just as in the 1970s we used to look in vain for the words ‘women’ or ‘Aborigines’ in the indexes of too many books on Australian culture and history, I’ve found myself becoming more and more astonished at the lack of the terms ‘emotion’ or ‘spirit’ (or ‘affect’) in the indexes of the majority of books on theory, cultural studies, and even works on literature. What in the past had seemed a natural omission is starting to look very strange indeed, that we should even try to talk about culture without reference to these ideas; although there are signs that this is changing.⁶⁴

The epistemological issues I’ve explored here are ones I’ve repeatedly had to grapple with in coming to terms with the vast amounts of conflicting information thrown up by my topic and the project of writing on and through breasted bodies.

These are also issues I’ve had to resolve to my own satisfaction before I could find the confidence to embrace some more controversial and minority (almost taboo) positions for my characters on topics such as cancer treatments, which for many people are life and death matters. It was difficult to keep trusting my own research and analysis in the face of a powerful orthodoxy that consistently fails to address the tenuousness – despite billions of dollars of research – of its evidential bases for a range of very toxic treatments.⁶⁵ It was by exploring the history and politics of these views, and deconstructing them according to current paradigms, that I was able to understand this process, as well as feel able to present an alternative view not as the ‘real’ (and only) truth, but as an offering of another way of looking at these things, and as a valid and possible choice.

The notion of truth as relational, and representation and knowledge as purpose-driven has important implications for historiography and fiction writing (story-telling and theorising), which I’ll be discussing at greater length in Chapter five. But first, in the next chapter I’d like to further explore the role of the body and emotions in beliefs, knowledges and decision making; and the

notion of the 'thinking body' and 'feeling mind' as a way of moving beyond the mind/body duality.

**CHAPTER 4 –
THINKING BEYOND
THE MIND-BODY SPLIT:
THINKING WITH THE HEART**

The logic of the heart would appear not to be strictly Boolean in form, but this is not to say that it has no structure... There are many ways of 'knowing' anything.

– Silvan Tomkins¹

The body is a part of the earth. It is the earthly home for the soul. It knows more about life on earth than the mind. When in doubt, we ask the body.

– Dr Lewis E Mehl, Cherokee physician and healer²

In western culture, part of the legacy of the mind/body split is that emotions are often seen as the enemy of truth or reason. 'Being emotional' is generally considered to be synonymous with 'being irrational'. For novelists, however, it is reason or intellect (or too much of it) that is usually seen as the enemy of good art. For many people art is about passion, sensuality, emotion and instinct: all associated within Cartesian dualism with the body. The mind/body split here becomes a struggle between the head and the heart, between analysis and creativity; an opposition that has provided the framework for countless pejorative statements about what good fiction writing involves. 'Good novelists' (as opposed to hacks or propagandists, or failed novelists), we are frequently told in writing classes and at festivals, don't know, or shouldn't know what they are doing. 'Good novelists' write by instinct. (Especially true, it seems, for women writers, who are considered to be naturally more earthy, and more ruled by their hearts.)

In this chapter I want to look at ways of conceptualising the body as an open system. These include some powerful ideas from spiritual traditions such as Buddhism, and concepts of the emotional body (the body with a mind of its own) that dissolve this automatic dichotomy between head and heart, and open up ways to think with the heart, feel with the mind.

I will be looking briefly at the work of Silvan Tomkins and Affect systems theory; Candace Pert and her work on the biochemical or bioneurological nature of emotions; and Antonio Damasio's work on the neurology of decision making.³ I am interested in the way that these theories support the concept of the body as an active and essential participant in the process of determining value (what we care about) and thus in the formation of memories, social relations, beliefs, knowledges and ethics.

From this I would like to explore what this might mean for the practices of both writing and reading, looking at these as akin to meditation: as psycho-physiological practices which can be undertaken with a specific intent without necessarily being overwhelmed by intellect; and as practices which have the potential to facilitate shifts in the way we feel, how we think and what we value. In short, I would like to explore what it means to be *moved* by what we read.

Exploding the mind-body opposition

Classical physics, as previously discussed, regards the body (like all matter) as passive and inert, a machine-like container and boundary of individual consciousness. The will to power within classical science to view nature as a closed (and hence controllable) system can be seen, for instance, in the way that even when the body is regarded as ‘bundles of genetic information’ these so often become viewed mechanistically, as if it is possible to remove or alter one piece (such as ‘the breast-cancer gene’) to inhibit or prevent a causal effect without impacting on or causing other effects.

In quantum physics, post-structuralism and ecological spirituality, however, the body’s meaning is much more open; fluid rather than fixed. It is something continually constituted and reconstituted (performed and re-performed, produced and reproduced) through relationships, experiences and discursive practices. The body may seem relatively stable in practice, but our bodies are forever growing and decaying; ingesting and excreting; colonies of other bodies live in and on them; atoms are constantly being exchanged; and no performance or version of the human body ever repeats or reproduces itself exactly.

The seemingly clear boundaries of the body become profoundly blurry from this perspective. If the atoms of my body are constantly being exchanged with yours and with others in the world (and other aspects of the world), then in this sense we are always a dynamic part of each other; always existing not as something separate and solid but as a complex system of interactions and tendencies.

Even in the absence of spiritual beliefs, most people when they think of their body-self usually include a flexible space or energetic aura, rather than see themselves as ending firmly at the skin’s boundary. This is what makes it possible for someone to ‘invade’ your body-space without touching your skin. The boundaries of this energetic body are constantly changing according to circumstances: expanding when there is a sense of connection, contracting when threatened or repulsed. So your body occupies more ‘space’ when you walk in a park, or engage in sex, and less

when you sit on a crowded tram, or are with someone you actively dislike (someone you shrink from).

For Breema, a bodywork practice and philosophy originally from Afghanistan, the body, 'like the Universe, is made of matter, energy, Consciousness and Awareness in the process of constant change.'⁴

In Buddhism the body, like the self (and like everything in the material world) is an '*interdependent arising*'; with each of us a 'collection of five changing processes: the processes of the physical body, of feelings, of perceptions, of responses, and of the flow of consciousness that experiences them all.'⁵

Buddhism teaches that the body is not something solid that can be possessed; nor can the mind be reduced to neurology or brain activity. The mind in its subtle or root form (the Self, as opposed to the temporary self or superficial mind) is pure awareness: formless and boundless. The same stuff that everything else is ultimately made up of.

In this sense, the body-self is a zone, marked by breath, speech, movement, sensation, affect, awareness, consciousness and cognition. A strategic relationship or perspective, a complex system of narrative events.

(I am this place I occupy, and the way in which I occupy it.)

While the relatively new or re-emerging field of mind-body medicine (or mind-body-spirit medicine) seeks a more hologenic notion of the body-self – so that every part is regarded as containing the intelligence of the whole – the ultimate 'truth' of the body is unknowable because none of us can step outside of it to observe it. So the holistic view of the body might best be seen as a purposeful concept, rather than a true replacement of the Cartesian model; with the claim being that when all the levels of existence of the body and mind are in harmony there is more efficiency and more comfort.⁶

Thus to seek to deconstruct or collapse the mind/body dichotomy need not be a quest to make it all into the same stuff (dissolving the difference) but could begin with teasing out the complexity and systemic interdependence of our embodiment as sentient beings.

Instead of *two* aspects (mind and body), or *one* (bodymind), it might be more fruitful to see embodiment as consisting of a multiplicity of factors or layers of energetic and intelligent material. For instance, the neurological-mind or ego-consciousness; the body-mind (the network of information-carrying peptides that communicate between the different systems of the body and brain, as will be discussed below); and the pure consciousness, higher-Self, or quantum self that exceeds the ‘skin-bag’ and is not bounded by time-space. And then the minds within these minds: the unconscious mind; the several inter-dependent layers of the body’s communication network; the consciousness some argue exists within every cell.⁷

In other words, the way to collapse the notion of two separate things might not be to fuse them into one (separate) thing, but to explode them into *multiple* things, and into no one thing. As everything and nothing; that is, nothing separate.

Deconstructing the mind/body dualism also requires releasing the idea that any one aspect – in this case, the cognitive mind – is the controlling, dominant, defining or superior aspect.

The ‘nature’ of the body as we experience it (personally, and across different cultural or historical periods) is a narrative constantly being written and rewritten by our being in the world; including through our participation in a range of discursive practices – scientific, medical, religious, as well as multiple discourses around sexuality, maternity, romance, sport, fashion, and so on. (With breasts, of course, as an important and recurring character within these narratives.)

As John Schreiber and Denise Berezonsky put it: ‘In our ordinary level of consciousness, we imagine the body to be a separately existing object, and we identify with it, believing we are this body. We regard everything else as “other”, and create tension and fear.’⁸

Or as David Bohm reminds us regarding ‘nature’: ‘There is very little left on earth that hasn’t been affected by how we were thinking.’⁹ To which one could add – insofar as discourses are also affective processes – ‘and by how we were feeling’. Indeed it is only by removing affect (or intelligence) from the body – by viewing it as passive – that classical science is able to stabilise it and conceptualise it as fixed and closed.

The notion of affect, however, disrupts that attempt at closure.

The Affective System and Human Being

Silvan Tomkins (1911-1991) has been called the ‘American Einstein’ for his brilliant formulation of a systematic way of understanding the affective quality of bodies as integral to the complexity of human being, and as the primary motivator of behaviour.¹⁰

In some ways you could liken Tomkins' theory of affect as being to Freudian drive theory what Quantum physics is to Newtonian physics: the elaboration of a complex dynamic network of ‘incompletely overlapping central assemblies’¹¹ instead of a more linear cause-and-effect program.

‘Affect’ here refers to the observable and/or measurable physiological (or somatic) component of an organism’s response to an object or stimulus within its environment – that is, the usually fleeting, possibly biological or innate, involuntary part of one’s response.

Tomkins describes the mechanism of affects as the ‘sets of muscle and glandular responses located in the face and also widely distributed through the body, which generate sensory feedback which is either inherently “acceptable” or “unacceptable”’.¹² These bodily affective responses occur before you have time to process or comprehend the response as a thought, causing a flood of chemicals through your body, and triggering specific muscles to contract such as those that make you smile and light up in response to joy; make your stomach clench, your heart race and your palms sweat in response to fear; make you look down and blush when shamed, and so on.¹³

If ‘affect’ is the bodily or physiological reaction, ‘feeling’ could be described as the subjective awareness that the affect has been triggered (the ability to comprehend the affect), while ‘emotion’ is the complex articulatable aspect (even if it isn’t articulated) – the personal and cultural meaning and management of that response. Emotion also derives from (and is intensified by) the memory of previous experiences of the affect, including the feedback of the affective responses of others to one’s own affective response, and the way it becomes habitually patterned and combined (‘scripted’) in with other affects. (The way shame, for instance, can become shifted into anger, distress or disgust, and then turned inwards in a toxic mix as self-hatred, or expressed outwards as hostility and contempt.)

Which is to say that emotion is the meaning given to the affect and the way it is managed within the wider narrative of the self.

Thus affects are linked to the cognitive process, but are not simply caused by it as in the cognitive view of emotion; and it is through this that affect theory gives a distinct and dynamic role to the body.

Tomkins defined nine separate affects as part of his 'human being theory': two positive affects (creating 'acceptable' or positive feelings), one neutral, and six negative affects. These are:

Interest-excitement

Enjoyment-joy

Surprise-startle (the neutral one)

Anger-rage

Distress-anguish

Fear-terror

Shame-humiliation (NB shame here means anything that even momentarily disrupts our enjoyment of an object of interest¹⁴)

Disgust

Dissmell (the reaction when something is found disgusting without even tasting or sampling it).

These nine distinct affects form a basic palate which, when intensity is also added in as a variable, enables an almost infinite variety of subtle and complex combinations and patterns.¹⁵

Affect theory shows how these instinctual bodily reactions are an integral component of the continuous cultural and personal processes of ascribing meaning and value – by physically alerting us to what we care about, and through the creation and modification of habitual scripts or patterns of biopsychosocial response. It is through these scripts that we interpret, evaluate, produce and seek to control and manage our responses as emotions, via a constant process of analysis and synthesis of our own and others' reactions

Affects such as anger, fear, shame, etcetera may be primal and involuntary and thus unable to be modified, but the way we feel about them, and the way we manage them socially can be acted on by the intellect. For Tomkins it is this aspect of complex choices within a system capable of error that is central to what it is to be human.

In a delightful speculation on what would be required to construct an automata (or computer) that had the ongoing learning ability of humans – that is, the ability and freedom to generate information, not just to utilise it – Tomkins outlines his idea of the continuous but uncertain (i.e.

unpredictable) feedback system between affect, cognition and our interactions with others. It is this imperfect feedback system together with the continual motivation to increase acceptable affects and decrease negative ones that Tomkins sees as being integral to the unique learning capacity of humans. That is, it is the very fact that we have the capacity (and freedom) to care about things – and to make errors of judgement – that ensures the complexity of the system which in turn makes it so highly evolved and so capable of further evolution.¹⁶

Psychoneuroimmunology and the body's information network

As a young scientist in the 1970s, Candace Pert, author of *Molecules of Emotion*, played a key role in the landmark discovery of the brain's opiate receptors, the proteins able to pick up and bind with opium molecules and thus create the drugs effect on the organism.¹⁷ In the decades following she was involved in the systematic mapping of a range of neuropeptides or ligands and their specific receptors. What she and others in the field found that was revolutionary in terms of the dominant model of the way the mind and body work together, was that these receptors and peptides existed not just in the brain, but in every system and major organ within the body.¹⁸

The previous model saw the nervous, immune and endocrine systems as autonomous, with the brain as the central controlling mechanism and sole source of collection, storage and processing of information. The discovery that identical peptides and receptors existed all throughout the body suggested instead the existence of a bodywide communication system – a multi-directional, non-hierarchical network of information exchange, with chemical messages and interactions going back and forth between the brain, the body, and between the different systems of the body.

As well as suggesting reciprocity between each of the systems of the body, the notion of chemical transmitters as the carriers of information posited a much more complex system of communication than the previous model which saw communication as an energetic (electrical or telegraphic) function. An electrical 'switch' has only two options – on or off – whereas chemical messages are far more complex, varied, nuanced and flexible.¹⁹ In the same way that the limited palate of affects can give rise to an almost infinite range of combinations and permutations, these chemical messengers can also combine into sophisticated 'languages'.

Sahand Boorboor uses Tomas Kuhn's model of scientific revolution (rather than gradual accumulative increase)²⁰ to describe the way this shift from the belief in an autonomous immune system to a concept of an integrated one took several decades to gain even a tentative acceptance within the mainstream. It so contradicted the accepted classical view of the body, that it was only in the face of decades of accumulated experimental evidence that the hostility and disdain with

which the findings were initially met was overcome, and the field of psychoneuroimmunology was given a tentative place.²¹

Even now, orthodox western medicine tends to either only evoke the mind-body connection when it suits – for instance, by claiming that the effectiveness of therapies that don't fit the dominant paradigm are only due to the placebo effect (but ignoring the placebo effect in evaluation of medically sanctioned treatments such as chemotherapy)²² – or see mind-body connections simplistically, as the 'power of positive (or negative) thinking', a one-way street of 'mind over matter'.

What psychoneuroimmunology suggests, however, is something much more complex, dynamic and sophisticated: a 'network hookup of multi-systems' (*Molecules*, 177) – the body with mind (or minds) of its own.

From observing the way these transmitters are distributed throughout the body – for instance, heavily concentrated along sensory pathways, places such as the lining of the gut, and the parts of the brain 'that have been implicated in the expression of emotion', Pert goes further and suggests that perhaps peptides and receptors are the 'biochemical basis' or 'substrate' of emotion²³ (or of affect, to use Tomkins' terminology).

For Pert, '...[W]e might refer to the whole [peptide-receptor] system as a psychosomatic information network, linking *psyche*, which comprises all that is of an ostensibly nonmaterial nature, such as mind, emotion, and soul, to *soma*, which is the material world of molecules, cells, and organs.' (185) Emotions (or affects) are 'the cellular signals that are involved in the process of translating information into physical reality, literally transforming mind into matter. Emotions are at the nexus between matter and mind, going back and forth between the two and influencing both.' (189)

Body memory, beliefs and 'gut thinking'

Psychoneuroimmunology also supports the notion that the cells and systems of our bodies, not just our brain, have the capacity for storing memory. According to Pert, memories are stored throughout the body, 'particularly in the ubiquitous receptors between nerves and bundles of cell bodies called ganglia which are distributed not just in and near the spinal cord, but all the way out along pathways to internal organs and the very surface of our skin.' (143)

If the body has the ability to store memory, it also has the ability to learn, and hence the potential for belief and intention.

Pert and Tomkins' notions of body memory is also borne out by therapies such as Gestalt and Kinesiology, which have devised ways to tap into memories and beliefs that become available when a body part is focussed upon, touched or given attention.²⁴ Kinesthetic knowledge or memory also includes basic things like the way we drive a car, tie our shoelaces, touch type, remember how to ride a bike, and so on.

As Feldenkrais practitioner, Ruthy Alon has remarked, 'It has been said that our body is our big brain, and inside our cranium is our small brain.'²⁵ Whereas Pert has commented that perhaps the body itself is the unconscious mind²⁶; although it may be more appropriate to say '*an* unconscious mind', as it would seem likely that mind is not singular but multi-faceted.

While these ideas may for many years have contradicted the dominant scientific sense, they have always had an intuitive basis in common sense, as well as being deeply ingrained in the metaphoricity of our language.

When my gut tells me something, it seems that these days it is not only the superstitious who say it is worth listening. Pert comments on the density of chemical receptors in the intestines²⁷, while Deepak Chopra suggests that the gut can often be more accurate than the brain, because 'it hasn't yet evolved to the stage of self-doubt.'²⁸ Whether it is more accurate or simply faster – not being concerned with details²⁹, as Elizabeth Wilson puts it: 'Mood is not added onto the gut, secondarily disrupting its proper function; rather, temper, like digestion, is one of the events to which the enteric substrata are naturally (originally) inclined.'³⁰

I feel it in my bones – In two minds – Something heart-felt – Can't quite put my finger on it – Feeling out of touch – Shrinking from something (especially if it leaves you cold) – Or playing with an idea – Tossing it around – Getting a sense of it – Grasping it – Or opening yourself to it: embracing it.

For dancer and academic Peggy Hackney, "'Information" may be located in books, but "knowledge" resides in a personal claiming of that information through interactive involvement with it, forming a feelingful relation with it and encoding the knowledge bodily.'³¹

New ideas are physically as well as mentally challenging, and digesting a new idea can give rise to a range of feelings. As a writer I have often had the experience of feeling a restless compulsion to ground myself back in my body when something challenging or exciting emerges in my writing – an unbearable urge to get up and move around, make a cup of tea (in the days when I used to smoke: to have a cigarette). It's almost as if the body resists it and has to readjust before the idea can settle and be embraced and incorporated, and become a part of the organism.

As a psycho-physiological practice (the body has to sit and be fairly still, so while it may not seem to be involved, it is involved at a very high or specific level), the excitement of creative writing and theorising can often be deeply unsettling in its intensity. In writing (as in tantric sex) one of the challenges is to learn to be relaxed for extended periods with a state of heightened arousal, resisting the urge to fold it into something known, to reduce or contain the sense of openness, but just to allow it to be there.

For writing is a way of interacting with the world where you extend out to engage with the technology of language and print, including the spatial and conceptual tools in a word-processing computer, rather than just something that is the expression of what goes on in a single isolated 'mind'. It is an interactive process, a constant projecting into the past and the future, a conversation with an invisible or imaginary reader-other (made up of potentially multiple reader-others), as well as a conversation with an infinite array of textual-others. In Elizabeth Wright's phrase, 'bodies speaking to other bodies.'³²

Writing also can involve a whole range of affects, running the spectrum from excitement to stomach-clenching fear and long bouts of shame as it can never live up to the desire for perfection. The body may at times seem to be absent, but it never is, constantly feeding its information into the mix.

Emotions and decision making, and the formation of knowledge

In his book *Descartes' Error*, neurologist Antonio Damasio proposes that 'reason may not be as pure as most of us think it is or wish it were, that emotions and feelings may not be intruders in the bastion of reason at all: they may be enmeshed in its networks, for worse and for better.'³³

Like the work of Tomkins and Pert, Damasio's experimental and theoretical work in neurology explores the linkages between thinking and feeling. Disrupting the classical notion of the body controlled by the brain, Damasio's work has led him to suggest provocatively that it is rather the brain that is 'the body's captive audience'.³⁴

Or as Pert – coming from a different angle – puts it, ‘emotions are constantly regulating what we experience as “reality”. The decision about what sensory information travels to your brain and what gets filtered out depends on what signals the receptors are receiving from the peptides.’ (*Molecules*, 147) The efficiency of this filtering process is determined by the quality and quantity of the receptors, which in turn is ‘determined by many things, among them your experiences yesterday and as a child, even what you ate for lunch today.’ (142)

Indeed, as Damasio demonstrates, while emotion may potentially flaw decision making, it is also a necessary condition of it, the very thing – by signalling to us what we most value, and thus providing motivation and a means of assigning priority – that enables a decision to be made and action to be taken at all.

All thinking requires the setting of limits. As Gary Zukav puts it: ‘To understand something is to give up some other way of conceiving it.’³⁵ Without a point of view – derived from experience and our interpretation or selective memory of our experiences – and an emotional attachment to this point of view, we’d be like Funes the Memorious, from a story by Jorge Luis Borges, who could forget nothing and was thus ‘incapable of thought.’³⁶

Pure logic can send you powerless, as pure logic cannot of itself prove anything or create anything. The only way logic can help you to decide which choice is better is when it is combined with memory and affect, and thus with values. Logic has no notion of ‘better’ inherent in it. In order to use logic purposefully, you have to first decide on your motivating goal: where you want to get to.

The problem is not that emotions limit our thinking – that is one of their jobs; what matters is which emotions (or emotional scripts) we allow to limit our thinking; and the related question of how conscious of this we are. If most of us are ignorant of the role played by our emotions in our beliefs and decisions, the real problem is that we don’t *feel* ignorant.³⁷

Nevertheless, we reach our emotional limits of knowledge long before we reach our intellectual limits.³⁸

Every new piece of information has to be able to be somehow slotted in to our existing field of beliefs and ideas in order for it to be taken on board. So something that strongly contradicts our belief system will set off an anxious or hostile affective trigger, and hence require a lot more

evidence behind it before we accept it than with something that readily fits in with our beliefs and is thus more affectively satisfying or pleasing.

The emotional content of knowledge and of knowing has become a recurring theme throughout the research and writing of my novel, something I constantly come up against, and constantly have to work my way through.

As a researcher I have to keep being aware of my own emotional investment in certain ways of perceiving the world, and keep working on ways to provide as much of a counterbalance to this as I can. For instance, I have to be constantly on guard against too readily accepting evidence that suits my case, and making sure I thoroughly scrutinise it and actively look for opposing views and evidence to test it against. I know I can never be objective, but I can at least try to be aware of my biases.

Fiction as a technology of imperfection

As a writer of fiction, I am also aware that this is a text that is likely to be read by people with a wider range of emotional investments in the topics than would be the case if it was a work of non-fiction, neatly compartmentalised within a single discipline and field. Some of the material I am dealing with in this novel (for instance, about the cancer industry) is deeply provocative, and deeply challenging to cherished beliefs, assumptions and established networks of authority and trust. While non-fiction provides a kind of structured safe area for this kind of writing – roped off, as it were, so if you enter you do so at your own risk – to incorporate this kind of challenging information into a novel can be particularly confronting, because so unexpected.

But one of the advantages of fiction is that it can be multivocal. With a novel I am able to introduce and play with more alternative or esoteric ideas by giving them to one of the many characters (in this case, to Maddie, the narrator's aunt, who has breast cancer). So the ideas are introduced and explored but in a way that doesn't require agreement or sympathy with them in order to have a way into the narrative (there are multiple ways that these ideas can be engaged with and multiple opportunities for critiquing them). In this way it is less disruptive of reading pleasure, and less threatening for both readers and for myself. I don't think I ever would have been able to bring spiritual notions, for instance, into my exegesis if I hadn't had the means to first safely explore these through a distancing but appealing character such as Maddie has become.

I'm also able to explore the more orthodox or 'rational' ideas – by giving them to Bruce – without having to subsume them with Maddie's into one non-contradictory 'correct' view. Fiction is a place where conflicting and contradictory ideas can simply co-exist (between characters, of course, but also even within characters). In fact writing fiction compels me to respect and spend time trying to understand as well as I can views oppositional to my own, for to do justice to Maddie's courage, I have to do justice to Bruce's arguments, he can't simply be a straw man.

A fictional world is an imperfect system, full of characters who, in order to make the work powerful, must be capable of error (of being led in different directions by their emotions).

Fiction is an open system of ever changing limitations; a constant movement between merging, differentiation and integration. In this sense, it is an apt metaphor for embodiment.

As Tomkins has described it,³⁹ an automaton can utilise what it knows, but can't create or move into new knowledge. It can't evolve. It can accumulate, but it can't revolutionise.

To shift the way we think and to move into new territory requires emotion, openness, imperfection: the very reason that Buddhism speaks of the *great gift* of embodiment.⁴⁰ For though life in the body contains the inevitability of suffering (error), it thus also provides us with the perfect technology for learning.

What does it mean to be open-minded?

It is impossible not to have preconceptions, the challenge is to keep them from becoming fixed – to keep these as fluid and open as possible – to see them always as theories.

And while it is not possible for open-mindedness (a lack of emotional commitment or investment in a perspective) to be a permanent state without our losing the ability to think constructively at all, it can be a momentary state: an affect perhaps akin to startle-surprise⁴¹, or wonder. An affective state that doesn't last but which provides a moment of opportunity for a reset to occur, a change in direction. And even a shift so small that it is not consciously noticed can cause a large change over time – like the small degree of change of a boat's rudder that can cause you to end up somewhere completely different.

Aikido master, Thomas Crum says: 'It takes a special mind-body state to be able to respond to conflict as opportunity, to acknowledge and embrace it, and to be willing to learn and change. That state of being is centering.'⁴²

As a martial arts practice, Aikido provides a wonderful example of the mind and body perfectly supporting each other, producing a sense of profound connectedness and calm that can be incredibly powerful. But this is not a seamless state of being. Asked by a student ‘You never lose your balance. What is your secret?’ O Sensei, the founder of Aikido replied, ‘I am constantly losing my balance. My skill lies in my ability to regain it.’⁴³

Modifying affect: making choices about how to think and feel

When our experiences and emotions throw us off balance, how do we choose a state of calm connectedness?

You cannot will a change of affect – that is, can’t modify an affect through cognition (by *wanting* not to feel a certain way): for instance, by trying to think or reason yourself out of feeling angry. You have to feel your way out of it, and use your mind or will to support this goal.

For a start, you can change what you do with your body, which can make a difference to your affect. One of the sayings of Gestalt therapy, for instance, is ‘fear is just excitement without the breath’ (or with your breath held).⁴⁴ Exercise, improving your posture, laughing, punching a cushion, being hugged, walking, controlled breathing (counting to ten) – these are just some of the ways we use our bodies to modify our affect.

Also, while you cannot consciously stop yourself from feeling angry, fearful, hurt, sad, and so on, you do have some degree of choice in how you manage and deal with these feelings. So while you can’t modify your affect by thinking, you can analyse and modify the script associated with that affect, and hence alter your future experiences of it.

Indeed, the complex feedback network between affect and experience means that the lasting way to alter an affective habit is to alter your experiences. But these experiences include the memory of previous affects, and these memories are deeply embedded in our bodies. To radically shift a deeply embedded feeling (one embedded by past toxic scripting), it first has to be accepted and felt. There is no substitute for staying with a feeling, and simply feeling it, although for most of us this is the most difficult thing in the world. But a feeling is a physical energy, and it cannot be willed away, it has to be changed into another energy. And this too is bodywork.

The good news is that every time you alter the affect related to an experience, the experience itself changes – that is, your perceptions, memories and focus change, which changes your experience of the experience.

The practice of meditation, and the art of being ‘lost’ in a story

In most spiritual traditions, meditation – as a psycho-physiological practice – is a key way of achieving a shift in feelings (including thinking or attitude); while for post-structuralism, a similar key is often found in art practices, including writing, or writing about art practices, such as with cultural and textual criticism and exegesis. Indeed performative or ficto-critical texts are often referred to as ‘meditations’ on a subject.

Meditation is a way of opening the mind, allowing shifts to occur, or training the mind to be available to such shifts.

In meditation the feeling of connectedness becomes for a while more interesting than the experience of self, and the feelings arising from identification with a self (and identification with this life) become less interesting and are thus allowed to dissipate. ‘Enlightenment,’ Charlotte Joko Beck explains, ‘is, after all, simply an absence of any concern for the self.’⁴⁵

Likewise, there are moments in meditation when the feeling of the possibility of all things becomes more interesting than the desire to keep things solid and familiar.

This is a physical as well as mental process: the act of ‘sitting’, or time-space component, is essential, although it also requires an act of will in order to sit and seek stillness. So meditation is a very embodied experience (often focussing on the breath, or a mantra or sound, bringing all of your attention to this), at the same time as a transcendent experience (dissolving the body until you become pure consciousness, pure awareness, and merge with all things).

In some ways meditation mimics the absorption you can get from being involved in a good book or story, which can take you further into the realm of feeling and the senses, at the same time as it can lift you up and take you out of your own body. If you sit long enough, you can easily ‘lose yourself’ in a good book.

Writing also involves body and mind, feelings and cognition, head and heart. While the critical and creative faculties may cancel each other out in the moment, they can work to support each other in a feedback loop. (Much like the practice of writing this exegesis is both informed by the

insights arising from writing the fiction, and then works back onto revisions and new aspects of that fiction). It is possible for the head to be in the service of the hearts' needs.

I am always fascinated by the phrase 'bleeding heart intellectual' – someone accused of being too greatly led by emotions, at the same time as being too rational and abstract. How can that be? It would seem that in practice we all know that the head and the heart work together, the issue is which emotions do we allow to lead us, and what kind of thinking.

The opposite to the 'bleeding heart intellectual' is the 'practical commonsense' man or woman, who accepts fear as a legitimate and unavoidable emotion to use as one's guide, and accepts the separateness of humans: at the end of the day, it's every man for himself, or it's every family for itself, or every nation-state.

Another saying or popular piece of wisdom is that in the end there are only two emotions: love and fear. Or to put this another way: connectedness, and disconnectedness.

And decisions made out of fear will in the long run always be inferior to decisions made out of love or compassion.

Thinking with the heart, feeling with the mind

Meditation is a way to shift the tendency to cling to one viewpoint – which is a tendency of self (as opposed to Self) – by strengthening the experience and awareness of the connectedness of all things. It is possible that by building a restful experience of no fear (even if just for moments at a time) – no threat from any thought or idea or Other, which is what makes one close up – it can strengthen one's clarity and ability for logical thinking,⁴⁶ at the same time as it strengthens one's ability to be compassionate.

As such it provides a model of the head and the heart working in tandem – a form of thinking with the heart; or the head in the service of the heart – its 'captive audience'⁴⁷. The head finding a way to make the heart's goals reasonable.

Fiction, too, can sometimes create a safe place for experiencing feelings – for experiencing connectedness, a wider or multiple perspective, and for experiencing choice rather than no-choice. It can 'disturb us in our selfishness'⁴⁸.

Like meditation, the aesthetics of writing can be a mode of paying attention, attuning, listening, exercising both our sense of wonder and our passions – so that we can find moments of stillness (God in the details), beyond words, where everything feels balanced, ineffable, and – for a space – up for grabs. A bodymind practice that can make the system more available for a shift to take place.

For it is when we are moved by the affective content of what we are reading so that we respond bodily to the text – laughing, crying, feeling sad, anguished, hopeful, afraid, excited, and so on – that we can most effectively absorb, process and generate information and ideas. Indeed it is when we are being deeply moved that anything is possible.

**CHAPTER 5 –
HISTORY AND METHOD:
PUTTING IT INTO PRACTICE**

I would like to write the history of this... Why? Simply because I am interested in the past? No, if one means writing a history of the past in terms of the present.

Yes, if one means writing a history of the present.

– Michel Foucault¹

History as fiction

Writing history – as for any form of writing, any act of story-telling – involves making selections, setting limits, and choosing a perspective, even if the chosen perspective is a supposedly neutral or ‘god’s eye’ one. As Hayden White and others have argued, there are no inherent story-lines or plots within the details of the past, or any intrinsic greater significance or value of some events or people over others. All these things are interpreted, evaluated, ordered and added by the writer/observer, using a language that is already full of metaphoricity (already full of stories and perspectives).²

‘History’ as a mass of past events is only an abstract; it doesn’t exist for us outside the realm of discourse. Even archeological remains only acquire their meaning as historical facts once they have been described and classified. And even when certain things about the past may be agreed upon by cultural consensus, the significance or interpretation of those ‘accepted facts’ – the relationship of these to other events or facts – is constantly debated.

Like the ‘nature’ of the body, the ‘nature’ of history (and the body in history) is a culturally inflected matter.

Empiricist views often see the writing of history as a collective accumulative project in which we are gradually moving towards the ‘real truth’ of what happened or what it was like, as more ‘pieces of the jigsaw puzzle’ are discovered – as if the past was a tangible and static object; and as ‘more accurate interpretations’ are made – as if we had any objective means to judge the ‘accuracy’ of interpretations, rather than simply their resonance for us.

Instead, as Ankersmith has suggested, histories might best be regarded not as *representations* of past events, but as *presentations* or proposals³; not as something which aims to *correspond* with a past reality ('this actually happened') but as something which aims merely to be *coherent* with the traces of the past that are available to us ('this is consistent with or correlates with what we can and have observed').⁴

In this view, the historian still has to pay attention to the available traces. These cannot be simply ignored to fit with a preferred theory or story. They still need to be sifted and weighed, checked and compared to other sources and interpretations, and the historian still has to engage in hypothesis-testing by searching for and gathering more evidence. But no amount of this can make a history 'accurate' or 'definitive' in any ultimate sense. It is always a theory of what happened: a story. And while it may be coherent with the available traces (a valid or plausible – even elegant – history), there may be other equally coherent and meaningful versions possible.⁵

In this way, one could also be said to be doing a *reading* of the traces. Like any text, the traces of the past can be read creatively and imaginatively, and as Keith Jenkins suggests, disobediently (25). Whatever the original intention of a particular set of traces, we have a certain amount of choice in how we interpret, arrange and link them, and it is in this sense that history is something created (a fabrication) rather than something discovered or uncovered.

History writing is a continuing cultural conversation, and a process – like the constant remembering and forgetting and re-remembering (each time slightly differently), shuffling and sifting and ordering of our personal memories. It is a process that is undertaken not once, but over and over again. New information can always act back onto the past information to alter and transform it for us, and it is in this sense that Jenkins writes that 'the past as history lies before us':

The sifting out of that which is historically significant depends on us, so that what 'the past' means to us is always our task to 'figure out'; what we want our inheritance/history 'to be' is always waiting to be 'read' and written in the future like any other text: the past as history lies before us, not behind us. (30)

Furthermore, history writing, as with all forms of story-telling, is an affective discourse. It involves aesthetic decisions, and value decisions, and these involve our experiences and personal histories as embodied subjects. The narrative style used will impact on the effect of the story on readers (and writers), as well as on the kinds of stories that are able to be told.

Both the title – *A Short (Personal) History* – and the montage style of my novel signal the selectiveness of the processes of history-telling. While there are valid and considered reasons for my selection and arrangement, a different person would inevitably make a different selection, and factors such as gender, sexuality, age, cultural background, and whether or not one has had children (and breast-fed) would colour one's choices in myriad ways, as it does with all history-making.

By mixing up things that are personally and emotionally significant to the narrator, Angela, with things that are considered publicly significant; mixing trivia with events of great social impact – and involving readers in these in similar ways – the givenness of the historical story is destabilised. While the public traces it makes use of, draws on and interprets can be checked for fidelity, with montage of this kind, there is always the implicit ability or invitation to reshuffle the story, to add in the reader's own memories or knowledge, to edit the connections and, through a different juxtaposition of elements, to create a different meaning.

This kind of history demands that it be judged according to whether it is 'true' only in the sense of whether it is pleasurable, useful, interesting, provocative, relevant, and honest, and whether it corresponds in certain ways with the reader's own experiences and knowledge, rather than on whether it corresponds with any objective reality, past or present. For while a seamless realist narrative is beautiful and entrancing precisely because it is hard to argue with (and thus is usually only beautiful if we don't find ourselves actively disagreeing with its values or 'moral'), what I have tried to create is a narrative that plays transparently with the malleability of 'reality' and (literally) keeps giving space for disagreement.

The way conventional history becomes a history of the winners is in writing it from the winner's point of view as if this were the only point of view possible. And for this reason it is important to keep writing lots of histories, a proliferation of points of view, a plethora of maps, and to keep exploring new ways of doing this. As Paul Carter put it: the political realm is an aesthetic realm, and the way we counter a myth is with better myths.⁶

'A myth,' Deepak Chopra writes, 'has the power to take choice and make it seem like destiny.'⁷ What I wanted to do was to take choice and emphasise that it is choice – not one big (wide, free) choice, but an infinite number of small choices, responses, reactions and habits that collectively make up our realities. And that within this there is always the possibility of change.

The uses of montage

In the novel samples which are the second part of this thesis, I have tried to create a text that doesn't always speak from one single stable place, but which more closely matches the way we are constantly forming a whole range of links with ourselves, our histories, with each other and the culture.

We live in a culture made up so much of bits and borrowings and reworkings of other images, concepts and voices that come from a whole range of places at once. A culture in which power is diffuse, everywhere; where subjectivity or identity is something constantly in production; and in which meanings are perpetually made and unmade, remembered and forgotten.

So the novel is constructed via myriad interlinking, cross-referencing moments within an outer chronological frame of Angela's present-time narrative that takes place in 1999. Blended with the story-lines that proliferate within this are fragments of memories, myth and anecdotes, jokes, advertisements, encyclopedia entries, dream images, newspaper or magazine clippings and gossip, scenes from television programs, as well as mini-essays on various topics that have arisen in the course of the narrative.

Spliced in between the narrative chapters are other 'voices' or testimonies (for instance from women who have had silicone implants), as well as history 'great moments' cards (such as the many versions of who first invented the bra).

In this 'history as bits', I'm interested in the bits not as something that you could ever put together to (re)create an original whole, but as fragments used to create daily meaning and truths, and which each person might use in a different way and different combination. This is history modelled more on the metaphor of the database – or the library where Angela works (with the threat of the Y2K bug ever-present in the background and the fear that we might end up endlessly repeating the century).

While history is still largely represented on the page as chronological, memories and dreams (both public and private) more often move and are organised by less logical means. For instance via metaphor and metonymy, and a whole range of other side-ways, rhizomatic and recurrent links. As filmmaker Alexander Kluge has said about his experimental montage style:

These images correspond precisely to the brain's way of functioning. A brain never only perceives something in the present. When I see something in the present, it

reminds me... of something in the past, something earlier... and thus I perceive that and make a connection with the future.⁸

One of the roles of my novel text is to explore these patterns, as well as the gaps, slippages and contradictions – the texture or fabric, and the ‘humour’ of the culture within which we live and work, out of which we make meanings, and which through our actions and choices we help to produce. Within this montage of images and story lines, juxtaposition and imagery can operate as a powerful form of argument or statement, via a process in which the reader is heavily involved, and which doesn’t stop when the text ends.

For instance by using the arrival of a postcard, a visual stage prop of a picture on a corkboard, a plot that involves researching in 1960s newspapers and a backstory of family telephone calls, I can talk about Nick Ut’s famous photograph of the little girl running down the road in Vietnam with her clothes burnt off from napalm; memories of my own pre-pubescence; the past 30 years’ multi-billion dollar ‘war’ on cancer and its privileged chemical weapons; Dow Chemicals history of producing both napalm and silicone for breast implants; the history of conscientious objectors and protest; and Maddie’s determination to seek alternatives to waging war on her body, all within a few pages. And with a good image, within the same breath.

In this I am taking a step further a style that I developed in writing my first book of fiction, *How to Conceive of a Girl*.⁹ This is a style that has grown out of working with essays and with fiction, with a gradual merging together of the two forms, so that my essays have increasingly used techniques usually associated with fiction (a personal voice, images, dialogue, metaphor, anecdote) and my stories have been increasingly addressing issues and exploring ideas in ways that I previously felt was only possible in essays.

In developing this way of working I have been influenced by film (especially the work of the New German Cinema, such as that of Alexander Kluge and Rainer Werner Fassbinder), documentary and docu-drama, by my experience scripting and producing radio features, and my practice with poetry¹⁰. These are all forms that use various techniques to create a style that is dense, compacted, elliptical and evocative. As with sound and poetry, in my fiction the positioning and choice of words, and the positioning and choice of paragraphs and sections is a meticulous process that involves every faculty – head and heart, intellect and instinct – working over and over the sentences and juxtapositions, refining and expanding the ideas, moving things around and playing with the language until something clicks.

I have also been influenced by montage forms that are part of mainstream culture. As a child of the late 1950s, television was my first narrative language: like most of the post-Boomer generation, I learnt to read the screen before I learnt to read books. Indeed, rather than seeing montage as an ‘experimental’ or fringe form of narrative, what might seem to be aberrant in contemporary culture is to have long uninterrupted (or un-disrupted) book-length works of a single texture and with a single speaking subject and place of enunciation. Montage and a mix of styles is, I would argue, a mainstream practice, integral not just to television and film but also to radio, video clips, contemporary music such as hip hop, magazines, newspapers, the internet, fashion, parades, even shopping malls (and shopping itself).

One of the advantages of this style is that it allows a very reflective kind of discourse, as I’m able to jump forward and back in time, and can use a multiplicity of language styles and narrative techniques to include a wide range of ideas and types of information.

For instance, being able to move about in time I don’t always have to report conversations in narrative present-time or even in any specifically located flashback. Thus, when setting up associations, images and ideas around a particular issue, I can include a passage that begins ‘Maddie says...’ (or ‘Bob says...’ etcetera). She may have said it six months ago, or it may be something she says regularly, or she may have said it yesterday, or today, but not necessarily.

I also found that sometimes the best way to convey a large lump of information is to just to splice it in, without any introduction, as a mini-essay (for instance, regarding the chemical legacy of the Vietnam War, or the history of baby bottle milk). Sometimes, if it is carefully written with attention to rhythm and nuances, this can be more interesting and pleasurable than if it is forced into the narrative (for instance, by being given as dialogue to one or more characters).

Angela (the narrator) is the pivot for the kaleidoscope of ideas, stories and images that interlace her narrative and crop up in between the chapters. My guess is that readers raised on montage are sophisticated enough to be able to handle these elliptical jumps and switches in voice, and that forging the links can become a part of the reading pleasure. The implication is that this is Angela’s collection of thoughts or things that come to her attention, but it’s not necessary to believe that she is the originator of them all. These could be things she reads or hears, or things she has read at some time, or perhaps even things sitting unread on her computer or on the shelves of the library where she works. Or these could be originating from one of the other characters – Wanda, for instance; although Wanda herself could be a part of Angela’s dreaming, seeing as we

don't actually meet her in person, but only glimpse traces of her activities when we accompany Angela on her occasional forays down into the tunnels under the library.

In this way the place of enunciation is often effaced (as with much of our cultural input, it could be spoken from 'anywhere' or 'nowhere'), and at all times it is constantly shifting and multiple, so that the implied discursive relationship is unstable. While this in some ways allows readers more opportunity to position themselves where they like – to not feel the need to identify with (sympathise or agree with) a single authorial voice – it also challenges them to remain flexible.

As the nexus for this, Angela is not designed to be a heroine with whom readers necessarily identify or sympathise; what I have aimed for instead is to create characters that are engaging – that draw you to them, and who are enjoyable to watch, whether or not you would like them in real life. Sympathy is an emotional response to having things in common – tastes, opinions, dispositions, experiences – a feeling of commiseration or agreement (in sympathy: 'with' or 'like', as in 'symphony', and 'symmetry'), and involves little intellectual engagement. Empathy, however, involves work. You sympathise *insofar* as the other is the same; you empathise *even though* the other is different. Empathy requires the subject to enter into and experience the other's point of view, even if it isn't their own; to actively accept difference, rather than reducing it to a self/other, same/opposite framework. Indeed to empathise successfully, one often needs to question one's own position, and to overcome personal or cultural taboos, prejudices and assumptions.

If, as I have suggested in earlier chapters, our 'truths' are derived not from being able to tap into an objective reality, but from how well something corresponds with our experiences, then by changing our experiences (and changing our relationships) we can change our truths. My aim with this fiction is to create a kind of laboratory for exploring and experimenting with different positions and ideas – a meditative space for observing moments of the culture at work, the connections, disconnections, the performance of images and concepts. A place where one can be detached – a witness – while also remaining physically present and attentive. Thus fiction can be a way of organising and playing with our subjective experiences, and in doing so, a way of changing them. A way not just to document social and cultural relationships or 'represent' history, but a way of actively intervening in the process of cultural and subject formation, a way of shifting – even if only slightly – who we are, what we feel, and what we think.

Structure, characters, devices and themes

The architecture of the novel is an outer frame that begins early in the year 1999, and ends at the Party at the end of the Millennium. Within this is a series of linguistic or thematic ‘plots’, told through a variety of characters and devices. There is also a loose decade trajectory that maps across these chapters, tracing Angela’s personal history, from her childhood in the 1960s through adolescence in the 70s, her early adult years in the 80s, then the final *fin de siecle* years until the novel’s present.

The following cast of characters, voices and devices have been gradually built up to provide a mass of possibilities for exploring the range of issues prompted by the novel’s title.

Angela, the narrator, works part-time at the Victorian State Library and moonlights doing research for a Dr B. The novel is set in 1999, and she has just turned forty. She is a collage artist who has recently had another not terribly successful exhibition, and realises she’ll never be great. She has no children. She tends to have relationships that are interesting rather than sensible (her substitute, she says, for foreign travel), like her current relationship with a younger man named Leo. Angela is the centre of the novel, with the other characters all related to her in some way. Like most of the characters, she is trying to find the right fit (rather than the perfect fit), perhaps a punk do-it-yourself kind of life rather than couture, but definitely not off-the-rack.

Naturally, in a book about breasts, she grew up on a dairy farm. She was born in late 1958, two years after television first came to Australia, and is thus part of that first experimental generation of girls who entered adolescence after the publication of *The Female Eunuch* and the introduction in Australia of no-fault divorce: the generation that inhabited that brief historical moment in between girdles and anorexia and were led to believe they could have it all.¹¹

As a collage artist she spends a lot of time cutting up magazines, so it is not so surprising that snippets of magazine gossip and tips are sprinkled throughout the book. Working at the library, a lot of different books pass through her hands, and she has all sorts of strange requests from the public when she is rostered on the information help line. At her work, the television is always on in the lunch room, often tuned to something like *Oprah*. And of course she has her research for Dr B, via her friend Natalie.

Natalie is Angela’s bosom buddy since primary school; an art curator, also working for Dr B. Has a cat called Terence.

Dr B is a retiree fulfilling his life-long dream of creating a world-class underwear museum in a small town in Central Victoria. He employs Natalie to do research, and she in turn employs Angela as her ghost-researcher. Dr B has possibly been a clothes designer in the past, or a milliner, or maybe worked for Berlei.

Dr B's project enables the novel to be scattered with a collection of 'history spots' – *Great Moments in Underwear* and *Invention of the Bra* versions (all the many and conflicting versions of who was first, who claimed credit, who is and isn't remembered). The implication is that these are written by Angela or Natalie for Dr B, as information-placards for his museum.

James/ Christine – Natalie's nephew, who likes to cross-dress. James is in his early twenties, the type of person who might be doing a course in Gender Studies at University. James' sexuality is never actually discussed, but is probably undecided: a 'narrative constantly under revision', as Vera Whisman has described it: part of the late twentieth century 'proliferation of identities'.¹² When asked why he likes to cross-dress he tends to reply 'Because I can.' For James, cross-dressing is probably more than anything about being *not-male* for a while, something he finds incredibly relaxing. Also he loves clothes, especially 1970s fashions. James exists in the novel as a disruptive energy, rather than as an attempt to represent even one of the many complex manifestations of transgender in a fully rounded character. There are so many problems associated with representation and speaking-for others, that it was a relief when I realised I didn't have to try to nail down exactly what James's 'story' was, but could let him be there simply as a boundary crosser, a catalyst.¹³

Leo – Angela's lover for part of the book, aged about 30. He surfs and works as a labourer, but wants to do a course to become a masseur. Leo would be happy to be Angela's house-husband if she let him. He's less concerned about the age difference than she is (or the many other differences). However, at forty, Angela is starting to be confronted by the most serious changes to her body since adolescence so she can definitely hear the clock ticking on this relationship, despite it being extremely pleasurable and Leo being wonderfully endearing. Leo also stretches Angela emotionally because she has never really experienced much nurture from her boyfriends, even (or especially) the soft-breasted older ones; and it's surprising for her that this hard-chested young man is the closest she's come to getting this.

Gail – downstairs neighbour, mother of three children with a new baby in the womb (Xanthe) at the start of the book.

Ruby, Rachel and Victor (4, 7, 10) – Gail’s children. Ruby, in particular, is very preoccupied with gender distinctions, the rules of gender, and ‘borderwork’.¹⁴

One of the themes of the novel is the way we construct knowledge of ourselves and the ‘truth’ of ourselves, and gender is fascinating in this respect. How do you ‘know’ that you are a woman or a man? How does this knowledge – or lack of it – come about? (And how is it that some children as young as two feel convinced they are not the gender assigned to them by their body type?¹⁵)

In *Gender Outlaw*, Kate Bornstein says:

I am so intensely curious about what it must feel like to be convinced you’re a man...
I’m thinking about who might be reading this; and I know that some of you really believe you are women. I want to get down on my knees in front of you, I want to get down on my knees, I want to look up into your eyes and I want to say tell me! Tell me what it’s like!
... I never went to bed one night of my life knowing I was a man. I never went to bed one night of my life knowing I was a woman.¹⁶

Ruby doesn’t have any major problems with seeing herself as a girl – and thus has a secure ‘identity’ (that is, how she sees herself is in this sense identical with how others see her) – but she is still extremely concerned with learning the details and getting them right. Of all the emotional scripts we learn in our culture, gender distinction (being clearly one or the other of a defined set of two genders) is perhaps the most imperative. It is fused so much into language, subjectivity and relationships, that to get this wrong in some way (or to ‘be’ wrong in some way) has huge consequences.¹⁷

Baby Xanthe – Gail’s new baby, still in the womb at the start of the book, but born soon afterwards. Xanthe is unable to perform gender because she has no language, but she has gender performed onto her as soon as the ultrasound reveals what kind of genitals she has. Xanthe ‘speaks’ at various points in the book (a fantasy form of ‘baby talk’), especially about her relationship to her [mother’s] breasts (her breasts, as far as she is concerned) and her breast milk (but then, everything in the whole world is still hers, and her, at this stage).

Xanthe and Gail exist at the start of the book as a complex dyad. And even after they are separated by Xanthe’s birth, together they continue to confound the neat self/other dichotomy that constitutes the (masculine) notion of citizenship and subjectivity, based as this is on the concept of the body-self as having complete self-integrity and clear boundaries with others. For who has

the ‘rights’ over the breast-milk Gail produces, or to whom does it really ‘belong’? Is it Gail’s because it is produced within the skin of her body, or Xanthe’s as the one triggering its production and ensuring, by continuing to suckle, that it keeps being produced?

Norman – Gail’s husband, who has erotic dreams about newsreader Sandra Scully.

Maddie – Angela’s favourite aunt who at the start of the book has just been diagnosed with breast cancer. Maddie is about 14 years older than Angela. They are very close because in Angela’s early childhood she and Bruce (the two youngest) were often sent to stay with Maddie and her mother Denise, especially during the holidays to give Angela’s mother a break.

Maddie is choosing to use alternative therapies and this causes disagreement with some of her relatives such as Bruce. She is also a member of a (fictional) guerilla action group called Bust Up, modelled in some ways on ACT UP but more directly concerned with raising issues regarding environmental contaminants and rising cancer rates and the role of chemical corporations in influencing health and research policy. Maddie is a practitioner of Aikido, a defensive martial art known as ‘The Art of Peace’, and is the most spiritually-inclined character in the book.

Over the years of developing Maddie’s character and part in the novel, I have at times been concerned that she was unrealistic (even for a novel that isn’t aiming for strict realism). But then I realised that she doesn’t have to be representative, or typical. If there is one person in the world who has responded like this to cancer, then she is realistic.

Maddie is also a model for me, not of how I think I would respond if I had a life-threatening illness (which is something I don’t think you can know until it happens), but of how I would wish to respond: an ideal. As such she has become a character that I continually learn from and am challenged by, a vehicle for extending the way I think, and what seems permissible as I gradually come to understand – often through further research prompted by something in the novel – the logic of her way of thinking.

As a character Maddie is rarely present in a scene, but is usually talked about, referred to and paraphrased. While I have been able to draw on my own experience of having a chronic illness for many years, this is very different from having a life-threatening one. So I wanted to signal that Maddie’s experience is coming to the reader second-hand – a result of research, observation, empathy and imagination. As such her words are almost always (as much as possible) filtered and

mediated through Angela. Thus I have repeatedly used the form ‘Maddie says,...’ rather than having her opinions or feelings in direct quotes.

Jude – Maddie's partner of many years. They live in a country town west of Melbourne, probably something like Daylesford where there is a strong alternative community (artists, Greens, old hippies, etcetera) but which is still close enough to Melbourne for many people to commute or at least go back and forth.

Bruce – Angela’s brother, a couple of years older, who is deeply concerned that Maddie is not using conventional cancer treatments such as chemotherapy and radiation, and not rushing to have surgery.

Bruce was very difficult for me to write. He began simply from the need to have a character expressing the conventional views, and it took a long time to make him a character that I liked and respected. I think at first I was basing him on the most aggressive or worst aspects of people I knew (and with whom I’d had similar confrontations), without realising that I could not only bring in the best aspects as well – such as their love and compassion – but that this was essential. Indeed, to show Maddie’s courage I had to make Bruce much more than a straw man; which meant that I had to learn to have respect for his perspective.

In a piece of non-fiction I may have been tempted to simply find ways to counter these kinds of arguments, but in a work of fiction it became necessary to try to understand them, to track them to their source and context, to appreciate them as much as possible.

Nevertheless, the overall aim of the chapters that feature Bruce and Maddie (with Angela in the middle) is a polemical one, and I can’t pretend to have more than some empathy for Bruce’s views. Thus, as with Maddie, I have tried to avoid setting up scenes in which Bruce speaks his opinions directly. Bruce’s words are always interpreted, filtered through a different set of ideas and beliefs, selectively remembered by Angela and placed in contexts that he himself would not choose.

Bruce is the sandpaper that helped me to explore and refine Maddie’s arguments, and as such he needs to be honoured by being a character that I at least, as author, can love. However whether this comes across is something for readers to judge. In the small amount of space available, I didn’t do anything particular to make him appealing, I just changed my own attitude to him and wrote the scenes as if Angela loved him too.

For me, one of the benefits of writing fiction has been this need to keep extending myself in multiple directions. Certainly, being able to introduce and play with some very ‘alternative’ and overtly spiritual ideas about illness, the body and the ‘self’ (ideas that include the notion of a sixth sense) by giving them to Maddie, has opened the way and made it much easier for me to then introduce these ideas into my non-fiction writing, such as the exegesis. Bruce, however was also a vital ingredient in this process, providing an anchor for me to dominant cultural views which are still my inheritance, and still within me as a desire that I have to constantly contend with – the desire for order, for simple cures, for a cultural mainstream that is dependable and trustworthy, for a white knight to come and take control and bring salvation in times of crisis.

Fiction gives me a space in which I could allow these different views and impulses to take form in a less-threatening way, without having to subsume them into one non-contradictory underpinning logic, or to designate one of the other as necessarily wrong. What I can do, however, is suggest that one way of looking at it might have more consistency with a particular kind of overall aim. But as Maddie says, ultimately nothing is provable, there are no certainties, so in the end, after weighing up the evidence, you have to make your decisions according to your own past experiences, feelings and values. And this will differ for each person.

Other members of Angela’s family mentioned include her **Gran**; her **Great Aunt Denise** (Maddie’s mother, most famous for cutting the crutch out of her undies one year because, she said, it saved on washing); her **parents, eldest sister, and cousin Ben and his wife, Sally**, who live across the road and work on the family dairy farm during her childhood.

Wanda – is the new Artist in Residence at the State Library, working with a group of homeless people in the tunnels under the library helping them create their costumes for the party at the end of the Millennium. She is also Natalie’s eldest sister. She has just recently arrived back in Australia after living overseas, mainly in the United States, since the mid-1960s.

History writing, like any social institution or consensus process, is an attempt to stabilise unstable and chaotic social and cultural formations. To give us stories to inform and back up the ways we choose to live. This tension between stability and change, conservation and innovation is played out most visibly in the world of fashion. As a constitutive discourse and signifying practice, it inscribes bodies within culture as gendered, belonging to particular cultures, classes, age groups and functions, but it also constantly flirts with and disrupts these boundaries.

Fashion is a way of processing and playing with the spirit of the times. It is neither rational nor unitary. Indeed it could be seen as one of the most basic ways we play out our contradictions, indulge our non-rational natures, express and formulate our desires; with the runway as a place where the street, the theatre, and the gallery converge.

For Derrida: 'If there were continual stability, there would be no need for politics, and it is to the extent that stability is not natural, essential or substantial, that politics exist and ethics is possible. Chaos is at once a risk and a chance, and it is here that the possible and the impossible cross each other.'¹⁸

So the party at the end of the Millennium becomes an opportunity to look over the cultural wardrobe, and decide what to wear (put up with or accept), and what it might be time to throw out or change.

Bob – (short for Roberta) is Angela's next-door neighbour and a tattoo artist. Bob brings into the mix a range of issues regarding body modification practices, the modern primitives movement, and bra wearing. Bob had terrible pain with fibrocystic breasts in her twenties, so she is an anti-bra campaigner now having found that by giving up bras both the pain and the lumps in her breasts disappeared. Working from notions of adornment, manipulation and mutilation (where adornment may or may not involve manipulation, which may or may not involve mutilation), Bob suggests that the most useful way of assessing the seriousness of a body modification is to look at whether it potentially deforms a major body system or function. By this definition, she argues that a bra is a much more serious and potentially deforming body modification – in the way it can impair the functioning of the lymphatic system – than tattoos. And yet ironically parents are usually eager to get their daughters into a bra, and horrified by tattoos.¹⁹

Zoe – Bob's flatmate, possibly a medical student.

Tony – Bob and Zoe's other flatmate, who works in a video shop. Tony becomes a volunteer research-assistant and brings over video copies of a range of films that feature famous scenes for underwear enthusiasts or historians (or feature the body parts that underwear brings into focus). Tony's offerings range from *Cat on a Hot Tin Roof* to *The Outlaw*, from *Working Girl* to *The Unbearable Lightness of Being*, from Mae West to Russ Myers.

Dora – Dora is the secretary of the Plastic Surgeon who owns the building that Angela, Gail and the others live in. She comes to collect the rent once a month.

Darcy – Later in the book, when Angela breaks up from Leo, she goes back onto a phone dating system and reconnects with Darcy, a man she’s never met, but with whom she has an ongoing exchange of messages. Darcy has a very polymorphous perverse sexuality that revolves around his nipples and pre-cum. He speaks the body into existence, recreating it over and over again with his words and fantasies of touch.

Voices – Angela’s chapters are intercut with other voices. These include the ‘Bra wearer’ that opens the novel; a Fitting Room Specialist; Cheryl (Angela’s Barbie doll from her childhood); and a series of women who have had breast implants.

The *Silicone Dreams* series begins with a young girl hating her small breasts; then moves to a young woman on the eve of getting implants; a woman just after receiving implants and in love with her new breasts; one who has experienced complications such as capsular contraction; a woman who has fallen severely ill; and finally a woman after explantation.

Included in the samples is also a wad of notes from one of Wanda’s Party workshop lectures (found in a rubbish bin), and various ‘Invention of the Bra’ and ‘Great Moments in Underwear History’ spots.

The voices and found texts provide a way to introduce counterpoint, variety, and different information and perspectives. Some other voices or texts that might be included in the final version of the novel include a seventeen year old in a girl’s body who desperately wants the body of a boy and binds her breasts every day till they bleed (based on the documentary *Decision*²⁰); a leaflet produced by Maddie’s *Bust-Up* group about chemical contaminants and increased rates of cancer; an Astronaut in deep space (an opportunity to fantasise about the body without mirrors, both glass and human ones, cut off from social performance); Xanthe (Gail’s baby – in another kind of deep space); the library ghost (a woman in Victorian attire apparently seen around the library for many years, who begin her monologue with, ‘My girdle is killing me’ after a famous advertisement from the 1960s); one of the two professional gorillas who live in the block of flats who likes to reminisce about his time on *Planet of the Apes* and discuss various theories about the evolution of breasts and the enigma of male nipples; and one or more of the Party Workshoppers, talking about their chosen costumes.

Creating a research context, redefining the edges of a text

This novel is a cultural conversation that began before this project (exegesis and samples) and will continue after it.

In writing a novel like this – with bras and breasts as the general topic – I am creating a situation in which readers are brought into contact with information and ideas that they may not normally seek out, or that that they may not normally come across.

For instance, one of the things I would like to achieve is to get my readers involved in thinking about illness, and cancer in particular, and to think about it from the point of view of philosophical paradigms of illness and wholeness, while they are still well, rather than waiting until it happens to them and they are caught up in the maelstrom of medical effects and decisions. Or to think about gender in ways they may not have thought of before, or perhaps simply to remind them to keep thinking about it critically in the face of the barrage of recent popular media that promotes the notion of two innately distinct genders as if it were now a scientific given – as if we could ever objectively know what is possible (or ‘natural’) in this respect. Or to learn a bit about the extraordinary history of breast implants and the continuing controversy over their safety, and to think about how this relates to the production and reproduction of ‘truth’ in our culture, even though this is often shocking, challenging and unpalatable reading.

However if I want readers to be challenged and to spend time thinking about these complex and often confronting issues, then I need to create a context in which I can demonstrate my research and be accountable for the claims made in the text – that is, a context in which I can earn their trust. This seems to me particularly important if I am asking them to question a wide range of cultural authorities (such as certain cancer specialists and research institutions).

A good research context should be empowering for the reader. Knowing that they can check my sources – even if they don’t – helps to keep me honest and on my toes. It also sets up a situation in which – if they don’t like the world view that I’m presenting – there is a greater opportunity for readers to deconstruct or critique it, and to work out which parts or aspects they find suspect or untenable, and which parts to take on board. (Or a greater opportunity for reviewers and critics to do this on their behalf.)

A research base can also be a resource in itself, and this is another reason for creating links to the extraordinary amount of fascinating and striking material that I have come across in the course of writing this novel, but which is often hard to find or not well publicised.

Stories can be a powerful magic, and good referencing, like any other kind of writing, is an artform.

My topic has led me into some deep and serious issues, and I would like to raise these in such a way as to encourage a continuing cultural conversation about them, both within and across a range of extra-literary discourses.

There are three main ways in which I can do this.

First, a certain amount of tags or clues or sources can be dropped into the text – camouflaged within it, alluded to, attached to anecdotes or items, or planted in the background. (For instance the allusion to Maddie clutching Ralph Moss’s *Questioning Chemotherapy* to her chest as a talisman in the small hours of the night, and the list of books standing guard on the bedside table or down beside the bed.)

Secondly, I can include a ‘Sources’ or ‘Notes’ section at the back of the novel.

This could be broken into chapter headings and provide details of references for specific claims or information presented in the text in a kind of prose version of endnotes. For instance, ‘The quote from Audre Lorde is from *The Cancer Journals* (San Francisco: Spinsters Ink, 1980) page 77.’ Or: ‘Regarding the chemical legacy of the Vietnam War, see *Battle’s Poison Cloud* [documentary] Directed and produced by Cecile Trijssenaar, Tambuti Films, 2003.’ For an example of this, see the ‘Sources’ for the novel chapters 4 and 5 at the end of the *Samples* section of this thesis.

Or the ‘Sources and Notes’ section could be more in the form of a general mini-bibliographical essay, and double as a ‘further reading’ resource. Thus it could include specific citations where needed (for quotes in the text, and so on), but have a more general listing of source material. For instance, ‘Some of the books and articles Maddie found helpful in making her decisions about cancer treatment were...’ This format would probably be a more suitable form for mainstream publishing. (For an example of this, see the ‘Notes’ sections in the back of *How to Conceive of a Girl*, 323-327.)

A third possibility is to publish specific chapters, or arrangements of novel material, as fully footnoted journal articles. For an example of this, see ‘The Milk of Humankind-ness’ in the *Samples* section of this thesis, which was published in *Australian Feminist Studies* in 2004.²¹

Finally, if I want to create the possibility for my research and methods to be analysed and investigated, and thus increase the novel’s cultural weight and its ability to enter into a broader range of discourses, I can create a companion website. On this I could publish a full bibliography, annotated reading lists, and a more complete version of the endnote essays on the internet, with directions to this website in the acknowledgments in the printed book.

Indeed, once I stop thinking about this novel (or this thesis) as an isolated text-object, but think of it more as a text-event – one which can give rise to and opportunities for other events – then the possibilities start to multiply.

The novel as book is thus only one potential outcome of the novel as a research project – or the novel as a research *technology*. As well as being the basis for this Ph.D. thesis, in the future it could also be a springboard for a range of other text-events. These could include journal articles, newspaper columns, interviews, radio scripts, soundworks, as well as a companion website that forms the nexus for all these, linking it in with other cultural conversations on similar topics, keeping it circulating, and allowing a dialogue to form around it.²²

CONCLUSION

*The end of modernity... is an end of history
and the beginning of many histories.*

– John Frow¹

What is it that the bra contains?

The ‘nature’ of our bodies – like the nature of our ‘selves’ – is to some extent a choice (or set of choices) that we make culturally. There is no way to confidently define ‘the body’ in any universal or permanent sense, no way to conceptualise or represent its role that doesn’t contain within it a belief system.

In this thesis I have been exploring ways to conceptualise the body that return breath and heart to it, that acknowledge the productive possibilities in its unboundedness, excessiveness, variety and fluidity.

Drawing on ideas from the post-structuralist paradigm shifts of the twentieth century that have left their mark on philosophy, science and spirituality, I suggest that one way to mend the split between nature and culture, mind and body is to understand these as involved in a multi-faceted and dynamic network of interdependence, with no controlling term, no ‘master of the domain’. As a complex feedback system that extends outside of the boundaries of the skin, this concept of embodiment suggests that we are inter-connected with each other and with the whole of matter in subtle ways. As such it is also a profound way to destabilise all dualities, including the primary dividing terms of self and other.

While exploring the body *as* fiction, I have also been exploring fiction as a way of thinking that uses and values the intelligence of the body.

In writing *A Short (Personal) History of the Bra and its Contents*, fiction has allowed me to create a discursive field in which the wide range of subjects raised by my topic – concerning issues to do with bodies, identity, knowledge, and power at the cusp of the twentieth and twenty-first centuries – can coexist without the constant requirement to lift, separate and impose discipline(s). As a research technology, fiction encourages casting a wide net and fosters a high level of cross-fertilisation of ideas. It provides an artificial space, or laboratory, where theories can be tested and explored by grounding them in concrete circumstances. As such it is not just a place to express ideas, but to generate, develop, process and refine them.

In the novel samples that comprise Part 2 of my thesis, I have developed a style using montage and a multi-vocal narrative that allows a plethora of cultural and historical ‘bits’ to rub shoulders and work off each other in non-linear ways. My aim has been to create a text in which authority keeps circulating; where the contradictions and discontinuities can have full play; and where the gaps, texture and juxtapositions help to create a fluid system of meanings in which readers are actively involved. What I wanted was a text that invites thought, but doesn’t require agreement; a process able to tap into and map aspects of the cultural unconscious; and one able to provide an evocation of post-modern history and contemporary life, by re-presenting a taste of the organic cultural fields, or ‘datasphere’ in which meanings are constantly being made and remade.

Fiction can also help us move beyond the fundamental ‘misrecognition’ where we see and experience ourselves as separate beings (the totality of the self identified with the visibly unified body in the mirror, and everything else defined as Other), by allowing us to re-experience our deep interconnection through our ability to empathise.

It is the body that reminds us of what we most value, and what makes us feel most at home. The body gives us important feedback about our decisions and choices; and is thus vital in developing not just subjective knowledge, but all knowledge, insofar as all knowledge is inter-subjective or relational.

Some of the outcomes of my use of fiction as a research technology include, for instance, a productive theory of body modification that doesn’t disable ethical critique, and a way of conceptualising disease that provides an alternative to the (self/other) war and battle metaphors.²

However apart from these more specific outcomes, what I hope this novel can achieve is to provide a meditation on certain cultural themes (such as gender, or illness, or our relationship to our bodies) that creates an opportunity for a shift to take place in the habitual ways in which we

think and feel, or *know*, things. As a psychophysiological practice, writing and reading fiction can allow ideas to be processed in multiple subtle ways by stilling the body and holding our focus emotionally, sensually and intellectually.

Fiction is a place where reason and passion can be companions, supporting each other. And while these novel chapters don't necessarily do the work of theory (illustrating or explaining it), they may sometimes be able to clear space for it. By deconstructing or denaturalising old habits of thinking, breaking them up, re-experiencing them and re-scripting their emotional charge, even by generating a feeling of exhilaration in the face of *uncertainty*, perhaps reading this kind of fiction can create a greater receptiveness for concepts that involve a paradigmatic shift in thinking when these are encountered in other contexts. It can make them more relevant, and help to create a more *feelingful knowledge* of these concepts: helping us to grasp them, or *incorporate* them.

In fiction, jokes, play, gaps, contradictions, ironies, the sensuality of language and images are all part of the texture that allows readers to become physically involved in the subject, to be seduced, surprised, captured by it. To be moved to pay attention to ideas and feelings that might in other contexts be dismissed, ignored or avoided. For fiction presents a way to write about the body and to involve it in relationship at the same time; to engage and move readers on an emotional (affective) as well as intellectual level: indeed, to explore the place where these are inseparable.

As a companion text to the novel samples, the first section of this thesis has explored points of convergence between feminism, post-structuralism, quantum physics, ecological spirituality, and the discursive strategies of history and fiction – in particular, regarding the connections between body and mind, matter and spirit, nature and culture, as well as the overriding question of: 'how do we know what we know?'

By constantly questioning the givenness or 'naturalness' of the ways we think about our bodies, our 'selves', and the relationships we have to each other and the environment, my aim is to create a text that intervenes, rather than just documents: a text that invites us to explore that degree of flexibility in what we choose to think of as 'reality'.

**Endnotes for Chapter One:
Writing On, About, and Through Breasted Bodies**

¹ Iris Marion Young, *Throwing Like a Girl and Other Essays in Feminist Philosophy and Social Theory* (Bloomington: Indiana University Press, 1990) 205. See below for a discussion of Young's essay 'Breasted Experience' from this volume.

² Daphna Ayalah and Isaac Weinstock, *Breasts: Women Speak About Their Breasts and Their Lives* (New York: Summit Books, 1979).

³ A. F. Neimoeller, *The Complete Guide to Bust Culture* (NY: Harvest House, 1944). Neimoeller is further described on the title page as 'Author of SUPERFLUOUS HAIR AND ITS REMOVAL, etc'.

⁴ Elizabeth Weiss (Dr), *The Female Breast* (USA: Bantam, 1975).

⁵ Drs Andrew and Penny Stanway, *The Breast: What Every Woman Needs to Know – From Youth to Old Age* (London: Granada, 1982).

⁶ Back cover blurb, Brigid McConville, *Mixed Messages: Our Breasts in Our Lives* (London: Penguin, 1994).

⁷ 'Boobs-a-lot: An Obsession of Western Cultures?' Prod. Ros Bowden. *Coming Out Show*, ABC Radio National, 22 Sept. 1975. A transcript of the program is also published in Julie Rigg and Julie Copeland (Eds.) *Coming Out! Women's Voices, Women's Lives: A selection from ABC radio's Coming Out Show* (Melbourne: Nelson/ABC, 1985) 96-107.

⁸ *Elle McFeast's Breasts Special*, ABC-TV, Sydney, 16 Oct. 1996.

⁹ For instance, see the ironically named *Nothing to Hide*, Dir. Judy Rymer (Australia: Mushroom Pictures, 1996); and *Lingerie*, Dir. Sophie Paul, Prod. Nick Lord (Sunset+Vine Productions, 1999).

¹⁰ James Holledge, *The Cult of the Bosom: the ups and downs of the bosom over the ages* (London/Melb/Syd: Horwitz Publications, 1966). Gernreich's topless dress fashion is discussed on pages 44ff, and cosmetic surgery for breasts on pages 85ff. Holledge also mentions in an 'odd spot' type of aside a woman who was suing her plastic-surgeon for health problems that arose after she was implanted with plastic foam in 1959, and who had symptoms similar to those recounted by much-later silicone-survivors (103). This is the earliest mention of any law suit concerning breast implants that I have come across. Silicone implants were suspected to cause health side-effects for many years, but Connie Chung's 1990 television program on the issue is generally considered to have broken the story in the media. See Connie Chung, '1990 Breast Implants Interview Transcript', *Web Star Magic*, 9 Mar. 2003 <<http://www.webstarmagic.com/wisletter.htm>>.

¹¹ Later in the article (page 199) Young repeats this but writes that they 'shatter' the border.

¹² Audre Lorde, *The Cancer Journals* (San Francisco: Spinsters Ink, 1980). See pages 16, 41ff and passim.

¹³ Jo Spence, 'Narratives of Dis-Ease: Ritualised Procedures', part of the *Collaborative Works Tour* initiated by the *Tin Sheds Gallery*, Sydney University, 17 Oct. – 11 Nov. 1990. (This exhibition also toured to Melbourne and Adelaide.) For more of Jo Spence's work, see *Putting Myself in the Picture: A Political, Personal and Photographic Autobiography* (London: Camden Press, 1986).

¹⁴ Matushka's photographic self-portrait was published on the cover of *The New York Times* colour magazine in August 1993 with the headline 'You Can't Look Away Anymore'. See Fiona Brook's 'Beauty and the Breast' and photographs by Matushka in *HQ Magazine* (March/April 1995).

¹⁵ Spence, 'Narratives of Dis-Ease' artist's statement in the *Collaborative Works Catalogue* (Sydney: Tin Sheds, 1990) 9.

¹⁶ Everything from pins and scarves to bubble bath and Estee Lauder Pink Ribbon Lipstick Traveller and compact, with a small percentage of the price going to breast cancer charities. See for instance the pink ribbon products showcased in the October 2003 issue of *Oprah* magazine, pages 145-6, 148 and 244.

¹⁷ Jane Gallop, 'The Teacher's Breasts', with responses by Moira Gatens, Meaghan Morris and Vicky Kirby in Jill Julius Matthews (Ed.) *Jane Gallop Seminar Papers: Proceedings of the Jane Gallop Seminar and Public Lecture 'The Teacher's Breasts'* (Canberra: Humanities Research Centre, 1993).

¹⁸ Catherine Keller, 'The Breast, the Apocalypse and the Colonial Journey' in Charles B. Strozier and Michael Flynn (Eds.) *The Year 2000: Essays on the End* (NY: New York University Press, 1997) 42-58.

¹⁹ Alison Bartlett, 'Thinking Through Breasts: Writing Maternity' *Feminist Theory*, 1.2 (2000) 173-88. Bartlett's title is also a play on the evocative title of Jane Gallop's book, *Thinking Through the Body* (Ohio: Columbia University Press, 1988). Bartlett's book *Breast Work* (Sydney: University of NSW Press, 2005), which includes a reworking of this article, has also been recently released but unfortunately came to my attention too late to be included in this review.

²⁰ Fiona Giles, *Fresh Milk: The Secret Life of Breasts* (Sydney: Allen & Unwin, 2003).

²¹ Young, 'Breasted Experience', 190.

²² Marilyn Yalom, *A History of the Breast* (NY/London: Knopf/HarperCollins, 1997).

²³ For a more detailed critique of Yalom's book, see my review-essay 'D-Cups, Groin Guards and Supermodels: Writing the Body into History' in *Australian Humanities Review*, May 1998, archived at <<http://www.lib.latrobe.edu.au/AHR>>.

²⁴ Elizabeth Wright, *Psychoanalytic Criticism: Theory in Practice* (NY: Methuen, 1984) xi.

²⁵ Bartlett, 'Thinking Through Breasts'.

²⁶ See for instance, Hazel Smith, *The Writing Experiment: Strategies for Innovative Creative Writing* (Sydney: Allen & Unwin, 2005).

²⁷ Anna Gibbs, 'Bodies of Words: Feminism and Fictocriticism' *TEXT* 1.2 (October 1997) 21 Mar. 2004 <<http://www.gu.edu.au/school/art/text/>>.

²⁸ Anna Gibbs, 'Fictocriticism, Affect, Mimesis: Engendering Differences' *TEXT* 1. 9 (April 2005) 19 Apr. 2005 <<http://www.griffith.edu.au/school/art/text/>>.

²⁹ Anna Gibbs, 'Bodies of Words'.

³⁰ I will be taking up and discussing further the benefits and challenges of writing history and cultural criticism as fiction in Chapter five.

Endnotes for Chapter 2: Post-structuralist Feminism and the Body

¹ I am indebted to Elizabeth Grosz for her lectures at Sydney University in the early 1980s which provided such a lucid introduction to post-structuralist theory, and a grounding for much of my later research in this area.

² Helene Cixous, 'Castration or Decapitation' translated by Annette Kuhn, *Signs: Journal of Women in Culture and Society* 7, 1 (1981) 44.

³ See for instance, 'When Our Lips Speak Together' translated and introduced by Carolyn Burke in *Signs: Journal of Women in Culture and Society* 6, 1 (1980) 66-79; 'And One Doesn't Stir Without the Other' translated and introduced by Helene Vivienne Wenzel in *Signs: Journal of Women in Culture and Society* 7, 1 (1981); 'This Sex Which is Not One' in *New French Feminisms: An Anthology* (Ed.) Elaine Marks and Isabelle de Courtivron (Mass: University of Massachusetts Press, 1980) 99-106; and *Speculum of the Other Woman* translated by Gillian C. Gill (NY: Cornell University Press, French edition 1974, English trans. 1985).

⁴ Elizabeth Grosz, 'Notes Towards a Corporeal Feminism,' *Australian Feminist Studies, Feminism and the Body Issue* 5 (Summer 1987) 1.

⁵ Elizabeth Grosz, *Volatile Bodies: Towards a Corporeal Feminism* (Sydney: Allen & Unwin, 1994) xi.

⁶ Grosz, 'Notes Towards a Corporeal Feminism,' 10.

⁷ Cf Judith Butler: 'I wanted to work out how a norm actually materialises a body, how we might understand the materiality of the body to be not only invested with a norm, but in some sense animated by a norm, or contoured by a norm.' Interview with Peter Osborne and Lynne Segal, originally published in *Radical Philosophy* 67 (Summer 1994) 4 Apr. 2001
<<http://www.theory.org.uk/but-int1.htm>>.

⁸ Michel Foucault, *Power/Knowledge* (Ed) C. Gordon (Sussex: Harvester Press, 1980) 98.

⁹ Judith Butler, *Bodies that Matter* (NY: Routledge, 1993) 2-3.

¹⁰ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, Trans. Alan Sheridan (England: Penguin, 1977) 26-7.

¹¹ Michel Foucault, from the chapter on 'Method' in *The History of Sexuality: Volume One* (NY: Vintage Books, 1980).

¹² See *Gender Trouble: Feminism and the Subversion of Identity* (NY: Routledge, 1990) and *Bodies that Matter*, passim. Note, while Butler takes issue with both Foucault and Irigaray, reading their work as depending on a notion of an essential or natural body, I feel this is a misreading of their work, and see more connections than differences between them.

¹³ In this sense, insofar as language is a technology, we are already 'natural born cyborgs', to borrow Andy Clarke's phrase. See 'Natural Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence: an Interview with Andy Clark' *All in the Mind*, ABC Radio National, Sunday 18 May 2003, transcripts, 6 Jul. 2003
<<http://www.abc.net.au/rn/science/mind/s850880.htm>>.

¹⁴ Vicki Kirby, commenting on Jane Gallop's reading of Irigaray, in *Telling Flesh: the Substance of the Corporeal* (NY & London: Routledge, 1997) 74.

¹⁵ Of course the clitoris is certainly not inferior in terms of sensation, or even in terms of size when the interior network of nerves and tissue is taken into account. However, within a specular philosophical structure it is 'inferior' in the sense of being (outwardly) visibly smaller, and less able to penetrate an Other where penetration is considered the master('s) act.

¹⁶ Young, 'Breasted Experience,' 194.

¹⁷ Luce Irigaray, 'When Our Lips Speak Together' (1980), and 'When One Doesn't Stir Without the Other' (1981).

¹⁸ Kirby, *Telling Flesh*, 75.

¹⁹ And touch rather than looking, which also has myriad implications for a subjectivity formed around a dichotomous relationship between self and other.

²⁰ Luce Irigaray, 'And the One Doesn't Stir Without the Other'.

²¹ When you stroke a cat, for example, you give pleasure to the cat as well as yourself (especially as the cat knows how to receive). When you eat, which is the source of pleasure: the food, or the mouth?

²² Likewise Irigaray also focuses on the mother-daughter relationship, overlooked in classical Freudian psychoanalysis, as a primary and important self/other relationship that is not based in an opposition.

²³ Vicki Kirby, *Telling Flesh*, 73 –76 and passim.

²⁴ For instance, see Elizabeth Wilson, 'Gut Feminism,' *Differences: A Journal of Feminist Cultural Studies* 15, 3 (2004) 66-94; Anna Gibbs, 'Contagious Feelings: Pauline Hanson and the Epidemiology of Affect,' *Australian Humanities Review* (December 2001, accessed 3 May 2005) <<http://www.lib.latrobe.edu.au/AHR/archive/Issue-December-2001>>; and Alison Bartlett's work as discussed in chapter 1. The more recent work of Elizabeth Grosz is also re-examining the links between feminism and science.

²⁵ This is a phrase that endocrinologist Deepak Chopra uses regarding his work on the notion of 'quantum healing' which features the idea of all matter, including the body as having intelligence. See for instance, *Quantum Healing: Exploring the Frontiers of Mind/Body Medicine* (NY: Bantam, 1989/1990).

Endnotes for Chapter 3:

The Matter of Bodies and the Paradigm shifts of Post-structuralism, Quantum Physics and Ecological Spirituality

¹ Michel Foucault, 'Truth and Power: an interview by Alessandro Fontana and Pasquale Pasquino' in *Power/Knowledge* (Ed.) C. Gordon (Sussex: Harvester Press, 1980) 109-133.

² The term 'allopathic' (as opposed to 'homeopathic') refers to a method of treating disease with agents that produce effects different from those caused by the disease itself. See the entry under 'Allopathic' at *Wikipedia*, 2 Dec. 2005 <<http://wikipedia.com>> for an extensive discussion of this term and its usage today to generally refer to conventional western biomedicine.

³ Michel Foucault, *The Order of Things* (London: Tavistock, 1977) 98.

⁴ For example, see the article and reader comments on the work of Candace Pert at Sceptico website which is typical of this logic. Pert's work is neither analysed or refuted but merely dismissed as 'bad science' with readers commenting 'I get quoted the old "even scientists said so" all the time. It's so hard for people to understand that "scientists" does not mean "science". Even they can be quacks!' and 'Don't they have to be *doing* science to be considered scientists? This lady is more like an "Artist Formerly Known as Scientist".' Sceptico Blog, 11 Dec. 2005 <http://sceptico.blogs.com/sceptico/2005/05/candace_perts_m.html>

⁵ Grosz, *Volatile Bodies*, 7.

⁶ Galileo was also religious. He didn't dispute the idea of God, he just disputed the Church's version of creation, and as the Church was committed to a single Truth (theirs) this was a problem that could only be dealt with through repression. Newton was not only a Christian (albeit with unorthodox views on some issues), he has also been referred to as 'the last magician' since the release of his hitherto suppressed but extensive papers on alchemy and religion. See Stephen David Snobelen, 'Newton Reconsidered,' interviewed by Paul Newall, Galilean Library, 6 June 2005 <<http://www.galilean-library.org/snobelen.html>>; also Fritjof Capra, *The Turning Point: Science, Society and the Rising Culture* (London: Flamingo, 1982/3) 51.

⁷ This point about the demarcation of spirit to the church and then all else to science being part of the conditions under which Newtonian science flourished was made by Sylvia Fraser, *The Quest*

for the Fourth Monkey: A Thinker's Guide to the Psychic and Spiritual Revolution (Ontario: Key Porter Books, 1992) 71. Kat Duff, in *The Alchemy of Illness* (Virago, London, 1993) page 50, makes a similar point about the secularisation of the body enabling science to carve out its own territory.

⁸ See *Women & Spirituality: Burning Times* [Documentary film] (USA: Wellspring Media, 1999) for an interesting account of the way that medical-juridical-scientific power was consolidated, first by aligning itself with ecclesiastical power and honing its methods on the witch trials, and then overtaking it.

⁹ Capra, *Turning Point*, 40-41.

¹⁰ Descartes cited in Capra, *Turning Point*, 46. The point about the context in which the idea of using science to control nature became seductive is made by Kat Duff, *The Alchemy of Illness*, 49.

¹¹ Also see Catherine Keller, 'The Breast, the Apocalypse, and the Colonial Journey' as discussed in chapter one.

¹² The most famous case of medical persecution was Harry Hoxsey. See Kenny Ausubel, 'When Healing Becomes a Crime' *Tikkun Magazine* (12 Jun.2001) 6 Jul. 2005 <<http://curezone.com/art/read.asp?ID=91&db=5&C0=779>> and Ausubel's book and film with the same title. For an example of a respected scientist whose employment and funding opportunities changed drastically when he began investigating phenomena that could not be explained within the dominant paradigm, see *Rupert Sheldrake's Website*, 10 Jul. 2005 <<http://www.sheldrake.org/>>. Patients can also be punished for not complying with doctor's orders. See for instance, Eve Hillary, 'DoCS – Stealing Our Children for Medicine?' *Cancer Information & Support Society Newsletter* 23. 5 (Sept/Oct 2003), republished at *Royal Rife Website* (August 2003) 25 Dec. 2003 <<http://www.rife.org/australiaeve.html>>. Hillary's article concerns a 12 year old Australian girl who was removed from her family and forced to undergo chemotherapy in 2003 against her own, her family's and her local doctor's wishes, and despite there being little evidence to show that chemotherapy was effective for her particular kind of cancer. An attempt was made by DoCS (Department of Community Services) to suppress this article until a court hearing in the NSW Supreme Court affirmed the right of the author to publish.

¹³ For a recent mainstream example of this view, see the educational documentary for children made in 2002 with the promising title *The Thinking Feeling Body*, but which describes the brain

as the ‘controlling centre’ of the body. Thus the eyes see something and send the unedited image to the brain which then tells the hand to move to grasp it, and so on. *The Thinking Feeling Body*, written and dir. by Francois Fombertaux (Australia: ABC-TV, 2002).

¹⁴ The 2005 US doctor-drama *House* beautifully plays out this model week after week as the patient, after presenting with the problem, usually conveniently goes into a coma while the team of doctors run diagnostic biochemical tests, carry out epidemiological research and use logical analysis to determine the single cause. They then apply the correct and always 100% successful remedy (in the nick of time) to the inert patient, who only opens his or her eyes and starts to contribute to the drama again once the cure is effected. There are rarely any side-effects, either of the illness or of the treatments (unless it is the wrong treatment), and the patient is usually back to normal in a short time once the problem has been successfully diagnosed and fixed.

¹⁵ Kat Duff, *The Alchemy of Illness*, chapter 3.

¹⁶ See below in the discussion of quantum physics for a possible scientific support for the notion of consciousness as a non-local phenomenon.

¹⁷ Serena Anderlini-D’Onofrio, “‘Of the Virus Party’: Ecofeminist Perspectives on Dissent in AIDS Science’ *Nebula* 1. 1 (June 2004) 4 Jan. 2005
<<http://www.nobleworld.biz/images/ARTL1.pdf>>. While I don’t agree with all of the conclusions of this article, Anderlini-D’Onofrio’s opening overview of an ecological holistic view of health and disease is excellent. Also see Polly Matzinger’s interesting theory of the immune system as responding to signals of ‘danger’ rather than signals of ‘not-self’ as in the dominant model. Polly Matzinger, ‘Tolerance, Danger and the Extended Family,’ *Annual Review of Immunology* 1.12 (1994) 991 –1045. For the transcript of an interview with Matzinger see ‘A challenge to the traditional way of thinking of how the immune system works’, Interview by Norman Swan for *The Health Report*, ABC-Radio National (15 Dec 1997) 10 Oct. 2003
<<http://www.abc.net.au/rn/talks/8.30/helthrpt/stories/s10678.htm>>.

¹⁸ It is worth noting that the comparisons used to show the success of science in improving quality and length of life are usually between life now in rich western nations, and life during some of the worst periods of the effects of ‘civilisation’ such as in the Middle Ages and during the Industrial Revolution, as these are the only earlier periods for which we have any kinds of statistics. Comparisons of quality or average life span now and life before the formation of cities in non-arid areas would be just guesswork.

¹⁹ The main sources for this section include: Fritjof Capra, *The Tao of Physics: An Exploration of the Parallels Between Modern Physics and Eastern Mysticism* Second Revised Edition (Boston: New Science Library, 1975/1985); and Gary Zukav, *The Dancing Wu Li Masters: An Overview of the New Physics* (London: Rider & Co., 1979 / 1989); as well as a variety of internet sites and articles that I have checked these against, or as referenced. Capra is a systems theorist and physicist and his influential and detailed book has been in print in the original and revised editions since 1975. Zukav was first introduced to these concepts at a physics conference. He has since developed his own ‘new age’ philosophy in a series of books, but *The Dancing Wu Li Masters*, like Capra’s book, is a detailed and careful reporting of the complexities and implications of the new physics, written in consultation with physicists from across the United States, and has remained in print since its publication in 1979. The title refers to a Chinese term with a number of interweaving meanings: Wu Li can be translated, for instance, as ‘patterns of organic energy’; Wu also means ‘void’ or ‘non-being’ (or ‘nonsense’); ‘my heart/my mind’; and ‘mine or ‘self’; while Li also means ‘universal order’ and ‘organic patterns’ (Zukav, 31-3). Both books draw heavily on the interpretive work of physicists Niels Bohr, Werner Heisenberg, John Wheeler, John Stapp and David Bohm – and of course Albert Einstein, although Einstein never completely accepted the implications of quantum theory and was convinced that a mechanical explanation would eventually be found, which has not been the case.

In the discussions that follow unless otherwise stated the very brief descriptions have been developed from reading the above sources (that is from reading the chapters devoted to the particular experiment as well as material and descriptions throughout the books for how it relates to other work and ideas). If I have used a specific phrasing or description from one author in particular I have referenced this separately, otherwise the descriptions (and any mistakes) are mine.

²⁰ Zukav, 116.

²¹ Zukav, 135.

²² Capra, *Tao of Physics*, 158-60.

²³ *Ibid.*, 140-1.

²⁴ Cited in Zukav, 136. For more on the Uncertainty Principle see Zukav, 114-136, esp. 133ff, and Capra, *Tao of Physics*, chapter 11, 145-161 and passim.

²⁵ Capra, *The Tao of Physics*, 192 & 193.

²⁶ Cited Capra, *Tao*, 141.

²⁷ By John Clauser and Stuart Freedman in 1972; see Zukav, 309.

²⁸ Stapp's statement is frequently quoted. For example, see the entry at the Wikipedia site, 16 Jan. 2006 <http://en.wikipedia.org/wiki/Bell's_Theorem>.

²⁹ The first time was by Edward Fry and Randall Thompson in 1976. See 'The EPR Experiment', 16 Jan. 2006 <<http://members.shaw.ca/quadibloc/science/eprint.htm>>; also the *Wikipedia* entry on the EPR Paradox, 16 Jan. 2006 <http://en.wikipedia.org/wiki/EPR_paradox>.

³⁰ See Capra, *Tao*, 311ff and passim; Zukav, 297ff.

³¹ Zukav, 62n.

³² Zukav, 116.

³³ Capra, *Turning Point*, 68 and chapter 3 passim.

³⁴ Slavoj Zizek, *Looking Awry: An Introduction to Jacques Lacan Through Popular Culture* (Cambridge, Mass.: MIT Press, 1992) 14-15.

³⁵ Deepak Chopra, *Restful Sleep: Complete Mind-body Programme for Overcoming Insomnia* (London: Rider, 1994) 63.

³⁶ Cited Zukav, 327.

³⁷ Tenzin Palmo, *Reflections on a Mountain Lake: A Western Nun Talks on Practical Buddhism*. (Sydney: Allen and Unwin, 2002) 248.

³⁸ Capra, *Tao*, 319-20. Also see Zukav, 324-5 for an interesting metaphor for describing Bohm's notion of 'enfoldment'. Vicki Kirby also refers to the metaphor of the hologram in *Telling Flesh*, 64-5 and makes a mention of Bohm (n3, 176).

³⁹ Bohm, interviewed in the documentary, *Art Meets Science: From Fragmentation to Wholeness* (MI: Mystic Fire Video, 1994).

⁴⁰ Capra, *Tao*, 25.

⁴¹ Cited Capra, *Tao*, 143.

⁴² Cited Kenneth Kraft, *Crosscurrents*, 2 Jul. 2005 <<http://www.crosscurrents.org/greening.htm>>.

⁴³ Many well-known writers on ‘new age’ spirituality have also had careers as scientists or medical practitioners. Deepak Chopra, for instance, is an endocrinologist; Peter Russell, author of *The TM Technique: An introduction to Transcendental Meditation and the Teachings of Maharishi Mahesh Yogi* (London: Routledge, 1976/1985) studied physics, mathematics and psychology, and researched consciousness at the University of Bristol; Kat Duff is a psychologist; Candace Pert (see chapter 4) was one of the most cited scientists in the US during the 1980s; Marilyn Schlitz was a medical anthropologist and a senior scientist at the Geraldine Brush Cancer Research Institute; Larry Dossey is a medical practitioner; and so on.

⁴⁴ Oppenheimer from 1954, cited in Capra, *Tao*, 18.

⁴⁵ See for instance V. Vale and Andrea Juno (Ed.) *Modern Primitives: An Investigation of Contemporary Adornment & Ritual* (CA: Re/Search Publications, 1989); also see *Bodyplay*, the website of Fakir Musafar, the ‘father’ of the Modern Primitives movement, 20 Oct. 1999 <<http://www.bodyplay.com/>>.

⁴⁶ The PBS radio program *New Dimensions* (California) ran a series of interviews under this heading a few years ago. For information about *The Bioneers* organisation and annual conference: see <www.bioneers.org>.

⁴⁷ It is interesting to see even traditionally conservative groups such as farmers becoming increasingly involved in practices outside of dominant rationalist farming science. For instance, the Whole Farming group in Wangaratta, which includes farmers of all ages and experience, apparently share information about building energy towers and dowsing as well as discussing general organic farming issues. (Personal communication, Sarah Minife, Wangaratta farmer, 3 Sep. 2005).

⁴⁸ James Gleick, *Chaos: Making a New Science* (London: Cardinal, 1987). James Lovelock, *Gaia: A New Look at Life on Earth* (Oxford/NY: Oxford University Press, 1987).

⁴⁹ For instance, Deepak Chopra's first book *Quantum Healing* published in 1989 before he got his 'new age guru' tag was taken seriously as a synthesis of medical knowledge and Eastern spirituality; it was, for instance, reviewed favourably in *The New England Journal of Medicine* and Chopra was interviewed and his work praised on *Science Bookshop*, ABC Radio National (17 December 1981).

⁵⁰ Dean Radin, 'Thinking about Telepathy', *Royal Institute of Philosophy* website, 25 Aug. 2005 <<http://www.royalinstitutephilosophy.org/think/article.php?num=13>>.

⁵¹ This could be compared to the way post-structuralism is taught and understood now after 25 years, and when it was first finding its way into humanities departments and being 'translated' and taught by (ex)Marxists or humanists. The hangover effect of the old paradigms coloured the interpretations, and a lot of the more empowering and politically effective notions within post-structuralism were often diminished. Indeed those most versed in the old knowledges often had the hardest time grasping the full potential of the new ideas. Likewise, a little New Age knowledge can be a dangerous thing, and the old paradigms can tend to lead to simplistic and reductive readings. The law of karma, for instance is often read as a kind of individual punishment to those raised on Christianity, whereas a more sophisticated reading of it is that karma is always visited on oneself by one's (higher) Self, and that karma is a choice (and a privilege) in order to learn, to understand, and to evolve.

⁵² Tenzin Palmo, *Reflections on a Mountain Lake*, 87.

⁵³ One way of imagining this kind of information gathering could be to see it as akin to a vast spiritual internet. This idea could also be compared to (or be compatible with) Jung's notion of the collective unconscious and synchronicity.

⁵⁴ Paul Feyerabend, 'How To Defend Society Against Science' (1975), e-text version at *Galilean Library*, 5 Jun. 2005 <<http://www.galilean-library.org/feyerabend1.html>>.

⁵⁵ For instance, see Sahand Boorboor, 'Integrating the Incompatible: The Rise of the Incorporated Immune System' *JUR* 1. 1 (Fall 2002) 6 May 2005

<<http://sa.rochester.edu/jur/issues/fall2002/sahand.pdf>> for an examination of how many decades it took and how much accumulated evidence was required to begin to change the dominant scientific belief about the way the immune system worked. Feyerabend (as cited above) also provides several examples.

⁵⁶ For instance, an editorial in the *British Medical Journal* in 1991 stated that: ‘Only about 15% of medical interventions are supported by solid evidence... This is partly because only 1% of the articles in medical journals are scientifically sound.’ Richard Smith, Editorial ‘Where is the Wisdom? The Poverty of Medical Evidence’ *BMJ* 303 (October 5 1991) 198-99. Tom Jefferson, from the Cochrane Collaboration Methods Group, commented that: ‘If peer review were a new medicine it would never get a licence... We had great difficulty in finding any real hard evidence of the system's effectiveness, which is disappointing, as peer review is the cornerstone of editorial policies worldwide.’ Interview in *The Guardian* (London) reprinted in *The Sydney Morning Herald* (18 Jan. 2003). Both quotes cited by Don Benjamin, ‘Evaluating Cancer Therapies and Developing a Cancer Program’ Extracts from a speech presented to the *Annual Cancer Seminar, Cancer Support Association of WA* (3 May 2003) 15 Feb. 2005
<<http://www.ciss.org.au/documents/Evaluating%20Therapies%20Developing%20a%20Program031b2.rtf>>.

⁵⁷ See Richard Wiseman and Marilyn Schlitz, ‘Experimenter Effects and the Remote Detection of Staring,’ *Journal of Parapsychology* 61 (1997) 197-208. Also Carolyn Watt and Richard Wiseman, ‘Experimenter Differences in Cognitive Correlates of Paranormal Belief and in PSI’ *Journal of Parapsychology* (Dec 2002) 25 Aug. 2005
<http://www.findarticles.com/p/articles/mi_m2320/is_4_66/ai_97754938>. For an interview about this with Schlitz and other scientists with differing views about paranormal phenomena, see *Closer To Truth*, Show 212 Transcript, ‘What is Parapsychology? Round table interview with Barry Beyestein, Dean Radin, Marilyn Schlitz, Charles Tart and James Trefil’, 25 Aug. 2005
<<http://www.closetotruth.com/topics/mindbrain/212/212transcript.html>>. Schlitz proposed the notion of ‘experimenter effect’ after she and Wiseman were involved in a study together where they both used the exact same protocol and came up with totally opposite results; results which also reflected their beliefs about what was possible. Schlitz then went to London and replicated the experiment in Wiseman’s laboratory, and still came up with her original results.

⁵⁸ Cited by Fritjof Capra, *Tao of Physics*, 41.

⁵⁹ The reference here is to a difference between blind faith (a requirement of some religious beliefs) and the faith, or trust, which is an integral aspect of all thinking and acting. You always need to have a leap of faith to then experiment or play with a new idea, or even to utilise an old one.

⁶⁰ Cited in Keith Jenkins, *Refiguring History : New Thoughts on an Old Discipline* (London/New York : Routledge, 2003) 31.

⁶¹ *Ibid.*, 13, 23ff and n1. 71.

⁶² ‘Economic rationalism’ is a potent example of this desire to abdicate decision-making to supposedly rational or objective market ‘forces’, rather than making decisions – for instance about welfare policy, or ways of interacting with the ecology – based on (perhaps ‘irrational’) values.

⁶³ An example of purpose-driven knowledge can be seen in Buddhism, which promotes certain precepts not as ultimate truths or commandments, but as instructions (recommendations or possible choices) if you wish to live a life which harms neither oneself or others. See Tensen Palmo, *Reflections*, 47.

⁶⁴ Scott McLemee, ‘Getting Emotional: The study of feelings, once the province of psychology, is now spreading to history, literature, and other fields’, *The Chronicle of Higher Education: Research & Publishing*, 49.24 (21 Feb. 2003) A14, 6 Aug. 2005
<<http://chronicle.com/free/v49/i24/24a01401.htm>>.

⁶⁵ See Chapters 4 and 5, and the ‘Sources’ section for these chapters, in the novel samples in part two of this thesis.

Endnotes for Chapter 4:

Thinking Beyond the Mind-body Split – Thinking with the Heart

¹ From *Shame and Its Sisters: A Silvan Tomkins Reader*, Ed. Eve Kosofsky Sedgwick & Adam Frank (Durham: Duke University Press, 1995) 55.

² Cited by Kat Duff, *Alchemy of Illness*, 25.

³ Silvan Tomkins, *Affect Image Consciousness*, Volumes 1-4 (New York: Springer Publishing Company, 1962-1992). Candace Pert, *Molecules of Emotion: Why You Feel the Way You Feel*. (NY: Scribner, 1997). Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain*, (NY: Avon Books, 1994).

⁴ John Schreiber & Denise Berezonsky, 'Self-Breema – Exercises for Harmonious Life', *Positive Health*, 28 Sep. 2005
<<http://www.positivehealth.com/permit/Articles/Bodywork/schreiber61.htm>>.

⁵ Jack Kornfield, *A Path With Heart: A Guide Through the Perils and Promises of Spiritual Life* (London: Rider, 1994)199. (Emphasis in the original.)

⁶ This is the essence of the first of the nine principles of Breema: 'body comfortable'. See Schreiber and Berezonsky.

⁷ See for instance, Jonathan C.W. Edwards, 'Is Consciousness Only a Property of Individual Cells?' *University College, London*, 5 Aug. 2005 <<http://www.ucl.ac.uk/~regfjxe/aw.htm>>.

⁸ Schreiber and Berezonsky.

⁹ In an interview in the documentary *Art Meets Science* (as cited in chapter three).

¹⁰ Silvan Tomkins' collected writings were published in four volumes, the first two in the early 1960s, the last two in 1991 and 1992. *Shame and Its Sisters: A Silvan Tomkins Reader*, edited and introduced by Eve Kosovsky Sedgwick and Frank Adams, was published in 1995 and introduced this work to cultural studies. In my reading of Tomkins I have also been assisted by the following articles and websites: Anna Gibbs, 'Fictocriticism, Affect, Mimesis: Engendering Differences' *TEXT* 9.1 (April 2005) 19 Apr. 2005 <<http://www.griffith.edu.au/school/art/text/>> and 'Contagious Feelings: Pauline Hanson and the Epidemiology of Affect' *Australian Humanities Review* (December 2001) 3 May 2005 <www.lib.latrobe.edu.au/AHR/archive/Issue-December-2001>; Elspeth Probyn, 'Dis/connect: Space, Affect, Writing', *Spatial Cultures Conference*, 2-3 Jun. 2001, 5 Sep. 2005 <<http://home.iprimus.com.au/painless/space/elspeth.html>>; Postings by Turbulent Velvet, *UFO Breakfast website archives*, 2002, 11 Sep. 2005 <<http://www.ufobreakfast.com/archive/00000208.htm>>; Duncan Lewis, 'Memory Feedback Loops: Reading Proust with Silvan Tomkins' Cognitive System', University of Alberta, 5 Sep.

2005 <<http://www.arts.ualberta.ca/igel/igel2004/Proceedings/Lucas.pdf>>; and Malcolm Gladwell. *Blink: The Power of Thinking without Thinking* (USA/Australia: Allen Lane, 2005).

¹¹Tomkins, *Shame and Its Sisters*, 43.

¹²Tomkins, *Affect Image Consciousness* 1:243, cited Lewis.

¹³ See Malcolm Gladwell's *Blink!* for stories about Tomkin's extraordinary ability to 'read' faces and Paul Eckman's precise detailing of these facial affects following Tomkins.

¹⁴ Compare with Tomkin's example: 'one started to smile but found one was smiling at a stranger.' (*Shame and Its Sisters*, 135.) For shame to come into play interest must be there to begin with, and still be partially there. Shame inhibits but doesn't stop interest. The notion of shame is hugely significant in the development of Tomkins' theory – see Sedgwick and Frank's introduction to *Shame and Its Sisters*, 21, also chapter 6, and passim. The notion of shame is also key to Affect theory's use in Community Conferencing and as a foundation for the Restorative Justice movement. See Turbulent Velvet's weblog for an interesting discussion of the political implications of shame compared to disgust/dissmell.

¹⁵ The colour-palate metaphor was made by Turbulent Velvet.

¹⁶ *Shame and Its Sisters*, 40ff.

¹⁷ Pert describes her early career, including her discovery of the opiate receptors in the first part of *Molecules of Emotion*.

¹⁸ Ibid... Chapter 7, and passim.

¹⁹ This point is made by Deepak Chopra in *Quantum Healing*, chapter 4, 57ff. Chopra practiced for many years as endocrinologist and has made extensive use of this notion of chemical communication exchange in his theories of mind-body healing. He also wrote the preface for Pert's book.

²⁰ Tomas Kuhn's book, *The Structure of Scientific Revolutions* was published in 1962.

²¹ Sahand Boorboor, 'Integrating the Incompatible: The Rise of the Incorporated Immune System' *JUR* 1.1 (Fall 2002) 6 May 2005 <<http://sa.rochester.edu/jur/issues/fall2002/sahand.pdf>>.

²² Or in a different vein, by saying that plastic surgery enhances mental health and happiness.

²³ Pert, *Molecules*, 178ff. This suggestion was first included as part of the conclusion to a paper by Pert and Michael Ruff published in the *Journal of Immunology* in 1985.

²⁴ Gestalt does this through techniques such as having the client subjectively identify where an affective emotion, such as grief or anger, feels like it is held in the body, and then instructing them to 'breathe into' that area. Kinesiology uses a form of 'muscle-testing' while the practitioner runs a series of yes/no questions through his or her mind in order to hold a 'conversation' directly with the client's body. While kinesiology, in particular, contradicts the dominant medical view of the mind/body relationship, many people who have experienced it will testify to its uncanny accuracy and effectiveness. Cranio-sacral therapy also can trigger memories or profound and sudden affects that cause the client to cry without consciously knowing why.

²⁵ Ruthy Alons, *The Feldenkrais Movement Tapes* [sound recording] (Box Hill, Vic. : Melbourne School of Tactile Therapies, 198-). Feldenkrais is a method of 'body awareness' and 'functional integration' developed by Moshe Feldenkrais, designed to teach the body to move more efficiently and effortlessly. See also Ruthy Alons, *Mindful Spontaneity: Lessons in the Feldenkrais Method* (Berkeley, Ca: North Atlantic Books, 1995).

²⁶ Caren Goldman, 'Molecules of Emotion: An Interview with Candace Pert', 4 Sep. 2005 <<http://www.ikosmos.com/wisdomeditations/essays/mw/goldman01.htm>>.

²⁷ *Molecules*, 188.

²⁸ Chopra, in an interview, *Science Bookshop*, ABC-Radio National (17 Dec. 1981).

²⁹ See for instance Gladwell's *Blink!* in which he develops the concept of 'thin-slicing'. Gladwell sees this as a function of the unconscious brain, but it could also be extended to encompass the body's ability (as an unconscious mind) to rapidly signal value and meaning by focusing only on the key information.

³⁰ Elizabeth Wilson, 'Gut Feminism', *Differences: A Journal of Feminist Cultural Studies* 15.3 (2004), republished *Sydney University website*, 10 May 2005
<<http://www.arts.usyd.edu.au/departs/rihss/ewgut.pdf>> 85.

³¹ Peggy Hackney, 'Moving Wisdom: The Role of the Body in Learning' *Transforming Education* (Winter 1988) 26ff, republished *In Context*, 5 May 2005
<<http://www.context.org/ICLIB/IC18/Hackney.htm>>.

³² Elizabeth Wright, *Psychoanalytic Criticism: Theory in Practice* (NY: Methuen, 1984) xi.

³³ Antonio Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain*, (1994) xii.

³⁴ *Ibid...* p xiii.

³⁵ Zukav, *Dancing*, 328.

³⁶ 'Funes the Memorious' in *Fictions*, by Jorge Luis Borges (London: John Clader, 1965) 102, as cited by Stephen Muecke in 'Experimental History?' *Australian Humanities Review* (July 1996) 10 Feb. 1998 <<http://www.lib.latrobe.edu.au/AHR/archive/Issue-July-1996/muecke.html>>, who in turn is citing John Frow from his essay 'Toute la Mémoire du Monde'.

³⁷ See a discussion of this in Malcolm Gladwell's *Blink!*, 71 and passim.

³⁸ I am indebted here to Richard Moran, author of *Executioner's Current: Thomas Edison, George Westinghouse and the Invention of the Electric Chair* (Knopf, 2004) for his comment on *The Buzz*, ABC Radio National, 1 May 2004, which I've adapted. Moran said, 'And I believe that most of us, certainly Edison, we reach our psychological limitations a lot earlier than we reach our intellectual ones so that we have certain psychological predilections that prevent us from using our full intellect.'

³⁹ *Shame*, 40 ff. See above.

⁴⁰ Likewise, one of the definitions of enlightenment is to be free of anxiety about imperfection.

⁴¹ See Tomkins, in *Shame*, 107-8 for a description of Surprise-startle as an affect. Note I am here extrapolating from Tomkins work, or interpreting it, rather than describing it.

⁴² Thomas Crum, *The Magic of Conflict: Turning a Life of Work into a Work of Art*. (NY: Touchstone, 1987) 54.

⁴³ Cited Douglas Stone, Bruce Patton and Sheila Heen, *Difficult Conversations: How to Discuss What Matters Most*. (London: Michael Joseph, 1999) 122.

⁴⁴ Personal communication from Sydney-based Gestalt therapist, Phil Oldfield, circa 1994.

⁴⁵ Charlotte Joko Beck, *Nothing Special: Living Zen*, Ed. Steve Smith (San Francisco: HarperSanFrancisco, 1993) 60.

⁴⁶ There are numerous experiments that have demonstrated improvement in clarity, perceptual and motor skills as a result of consistent meditation practice. See for instance, Peter Russell, *The TM Technique* (London: Routledge, 1976/1985) 85. According to Russell, Maharishi, the founder of Transcendental Meditation, ‘sees an increased orderliness of thinking to be the result of an increased orderliness in brain activity (illustrated by the increase in synchrony and coherence of the EEG patterns [between left and right brain]), and claims that this orderliness is itself a direct consequence of giving the nervous system deep rest.’

⁴⁷ To adapt Damasio’s phrase, cited above, about the brain as the body’s captive audience. *Descartes’ Error*, xiii.

⁴⁸ Beck, *Nothing Special*, 60, on the role of a Zen centre or a good teacher.

Endnotes for Chapter 5:

History and Method: Putting it into Practice

¹ Michel Foucault, *Discipline and Punish*, 31.

² See for instance, Hayden White, 'An Old Question Raised Again: Is Historiography Art or Science?' *Rethinking History: The Journal of Theory and Practice* 4.3 (2000): 399. Stephen

Muecke, 'Experimental History?' *Australian Humanities Review* (July 1996) 10 Feb.1998
 <<http://www.lib.latrobe.edu.au/AHR/archive/Issue-July-1996/muecke.html>>. Paul Carter, *The Road to Botany Bay* (London: Faber, 1987). Keith Jenkins, *Refiguring History: New Thoughts on an Old Discipline* (London/New York : Routledge, 2003).

³ Cited by Jenkins, *Refiguring History*, 41.

⁴ For an interesting discussion of the 'correspondence' versus 'coherence' theories of history writing, see the archives of the Ebla Forum for August 2004, 2 Nov. 2005
 <<http://www.eblaforum.org/main/viewtopic.php?t=643&sid=91bf61f2a3b1d564e0f477124c54e6bb>>. Also see Alun Munslow, 'Review of *The New Nature of History: Knowledge, Evidence, Language* by Professor Arthur Marwick,' 4 Jun. 2005
 <<http://www.history.ac.uk/projects/discourse/munslow5.html>>.

⁵ Music history documentaries are an excellent example of the way the same historical terrain can be mapped (or played or redescribed) in multiple valuable and evocative ways, and still be coherent with the traces. For example, see recent documentaries shown on Australian television such as *Get Up, Stand Up; The Voice; The Blues; Dancing in the Street; Walk On By; and Long Way to the Top*.

⁶ Paul Carter, speaking on a panel on *Awaye*, ABC Radio National, 27 Jan. 2006.

⁷ Deepak Chopra, *The Book of Secrets: Unlocking the Hidden Dimensions of Your Life* (NY: Three Rivers Press, 2004) 25.

⁸ Alexander Kluge cited in James Franklin, *New German Cinema* (London: Columbus Books, 1986) 69.

⁹ Published by Vintage, Random House Australia in 1996.

¹⁰ My first radio feature was a cultural history the 1960s children's television series *Adventure Island*, produced with Claudia Taranto for ABC Radio National in 1991. My book of poetry *Things in a Glass Box* was published by SCARP/Five Islands Press in 1994. Poems from this book were produced with soundscapes in collaboration with sound-artist Stuart Ewings for broadcast on *Poetica*, ABC Radio National, 11 Dec. 2004, and are also included on my CD *Body of Words* (Melb: Dogmedia, 2004) along with a collection of other radio essays and pieces.

¹¹ For more about the effects of being a part of the first television generation, see my column 'X-ed Again, or Whatever Happened to the Seventies', *Australian Book Review*, 176 (Dec. 1995). Also see Pagan Kennedy, 'Ring My Bellbottoms: Fondue Memories of the Disco Decade', *Village Voice Literary Supplement*, Dec. 1991.

¹² See Vera Whisman, 'Choosing a Story' from *Queer By Choice* (1996), reprinted in Stevi Jackson and Sue Scott, Eds., *Gender: A Sociological Reader* (London & NY: Routledge, 2002) 342, 359.

¹³ Research for the character of James included numerous first-person books and biographical documentaries, websites and articles (see bibliography). I am particularly indebted to articles by Veronica Vera, Norie-Mae Welby and others in Jo-Anne Baker, Ed., *Sex Tips: Advice From Women Experts From Around the World* (Sydney: Allen & Unwin, 1999).

¹⁴ For detailed observation and analysis of children Ruby's age and their attitudes to gender distinctions, see Bronwyn Davies, *Frogs and Snails and Feminist Tales* (Sydney: Allen & Unwin, 1989) and *Shards of Glass: Children Reading and Writing Beyond Gendered Identities* (Sydney: Allen & Unwin, 1993).

¹⁵ For instance, see the two-part documentary *Decision: The Wrong Body* (UK: Windfall Films/Channel 4, 1995) about a group of adolescents seeking female-to-male hormone treatment and/or surgery, who talk about having 'known' since they first began talking that they were male. Also see interview with Zachary Nataf about this film, *Tokyo International Lesbian and Gay Film Festival website*, 28 Mar. 2006
<<http://www.tokyo-gff.org/99/English/interview/zacharynataf.html>>

¹⁶ Kate Bornstein, *Gender Outlaw: On Men, Women and the Rest of Us* (NY/London: Routledge, 1994) 234.

¹⁷ See Bornstein, *ibid.*, for a wonderfully fluid discussion of this issue.

¹⁸ Cited in Jenkins, *Refiguring History*, 22, n 12.

¹⁹ See the discussion of body modifications, and the possible negative health effects of wearing bras for long periods, in the last part of the novel samples, a hybrid piece called ‘From the “Primitive Droop” to the Civilised “Thrust”’: Towards a Politics of Body Modifications’.

²⁰ *Decision: The Wrong Body*.

²¹ *Australian Feminist Studies, Meanings of Breastmilk: New Feminist Flavours* (Guest editors: Alison Bartlett and Fiona Giles) 19. 45 (Nov 2004) 315-327.

²² I have been awarded a Fellowship for 2006 from the Literature Board of the Australia Council to expand and complete the novel for mainstream publication, and to develop ideas for these kinds of multi-media spin-offs. This will be the next stage after completing this dissertation. I already have a website that functions in this way for my previous work, at <http://www.bethspencer.com>. However I would envisage a website that grew out of this research project to be much more directly focussed on specific issues, such as cancer treatments, the safety of breast implants, body modifications, bras and health, fashion history, environmental issues and so on, with extensive links to and from other sites.

Endnotes for Conclusion

¹ John Frow, *Time and Commodity Culture* (Oxford: Clarendon Press, 1997) 9.

² See the hybrid piece, ‘From the “Primitive Droop” to the “Civilised Thrust”’: Towards a Politics of Body Modifications’ and Chapters 4 and 5, ‘The Art of Peace, parts one and two’, in the novel samples in Part 2 of this thesis.

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Abbreviations used

ABC – Australian Broadcasting Corporation

SBS – Special Broadcasting Service

Additional information

For books, when available I have included the original publication date, followed by the date of the edition to which I am referring (eg 1975/1992).

For internet resources, the date of posting or publication has been included where available, followed by the date of access. When there is only one date it is the date of access.

Implants Support Email List postings. A significant resource used for research for this novel was the email support list owned and hosted by Ilena Rosenthal from the Humantics Foundation and designed to support women who have suffered illness or trauma following silicone breast augmentation, including those involved in litigation with the manufacturers. This list inspired an unusual level of confidence because it republished everything that came to the owner or listees notice that was connected with the issue, regardless of whether it supported their case or the manufacturers. Even the study reports and journal articles that seemed the most damning for their case were posted to the list for discussion and analysis. I have subscribed to this list since January 1998, receiving several thousand magazine and journal articles, news reports, personal stories and reposted ‘letters to editors’. In the select bibliography that follows I have included only a relatively small number of significant articles that provide background and support for the ‘Silicone Dreams’ sections of the novel. There are no archives for this list on the internet, and subscription is only available by emailing Ilena Rosenthal personally. For reposted articles I have included the original place and the date of publication, followed by the information, ‘Posted to Breast Implants Support Email List. [date posted] <ilena@san.rr.com>.’

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