(W)rites of passage:
Kinds of (w)riting,
Kinds of (k)nowing.

Jaki Nidl-Taylor
M.Ed. University of NSW

This thesis is presented
for the degree of
Doctor of Philosophy
at the University of Western Sydney Hawkesbury.
PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
Certificate of Originality

I declare that this thesis is my own account of my research and contains as its main content work which has not previously been submitted for a degree at any tertiary educational institution.

Signature

Date: 6/7/2006
ACKNOWLEDGMENTS

Many of the formal intellectual debts are acknowledged either in the text of this work and/or in the bibliography.

The more informal and no less serious or valuable debts, intellectual and otherwise, are not as visible. For example, conversations over the years with friends, colleagues, family and my students have been of enormous comfort, creativity and encouragement.

So: my thanks go especially to my daughters Nina, Lisa and Sola, to my grand-daughter Jaki-Lee, who did the journey with me during her growing up years, and to my new grand-children Luke, Kobi and new-born Zoë, all of whom made "knowing" and "finding out" an important project.

A special “thank you” needs to be made to Glenda Blakefield, Bonney Bombarch, Debbie Horsfall, and Judy Pinn for their companionship and conversation along the way. And to Supervisor Dr Mary Harvie for the long haul. To Professor Bob Hodge for picking up the pieces and for typing and editing beyond the call of duty to Miranda Mariette. Last but not least to Neill Hampton for all the support over the years.

Artwork and Design by Suzie Hayes, Hayes Designs, NSW Australia. (2000)
Figure I: Evolution of the Hand (After W.K. Gregory)
SYNOPSIS

(W)rites of Passage: kinds of (w)riting and kinds of (k)nowing

This is not the traditional report thesis, rather it is a thesis that documents a personal journey and challenges the medieval thesis construction as a one size fits all model of knowledge making.

The thesis maps a personal journey, a (w)rites of passage, that asks the reader to consider the volatility of genres and their use value as a hierarchy and/or in the Academy.

It places itself in the limitary disciplines of cultural studies, gender studies and fiction, and offers a map of a journey across disciplines with a 'trickster's' writing practice that marks a chameleon praxis of knowledge and culture making.

The thesis (w)rites against the grain of the patriarchal Other, and the author articulates gender as a variable in knowledge making and takes an experimental approach to the collection and analysis of data through reading and writing strategies. The use of the bracket is to make a ritual of (w)riting and a contingency of (k)now-ing.

The thesis comes in three parts: Part One, A Routine Rape, my first collection of short stories and poetry, Part Two, The Unquiet Heart and Other Misfits, my second collection of short stories and poetry, and Part Three, my Letters and the Correspondence. They are all interrelated and built upon the previous work in a journey of finding my own voice. My works of fiction are reproduced in their original published form as part of the body of the thesis and contain some unorthodox spelling.
TRANSCENDENTAL ETUDE

Vision begins to happen in such a life
as if a woman quietly walked away
from the argument and jargon in a room
and sitting down in the kitchen, began turning in her lap
bits of yarn calico and velvet scraps,
laying them out absently on the scrubbed boards
in the lamplight, with small rainbow-coloured shells
sent in cotton-wool from somewhere far away,
and skeins of milk weed from the nearest meadow-
original domestic silk, the finest finding-
and the darkblue petal of the petunia,
and the dry darkbrown lace of seaweed;
not forgotten either, the shed silver
whisker of the cat,
the spiral of paper-was-nest curling
beside the finch's yellow feather.

Such a composition has nothing to do with eternity,
the striving for greatness, brilliance-
only with the musing of a mind
one with her body, experienced fingers quietly pushing
dark against bright, silk against roughness,
pulling the tenets of a life together
with no mere will to mastery,
only care for the many-lived unending
forms in which she finds herself
becoming now the shard of broken glass
slicing light in a corner, dangerous
to flesh, now plentiful, soft leaf
that wrapped round the throbbing finger, soothes the wound;
and now the stone foundation, rockshelf further
forming underneath everything that grows.  

(A Rich 1978)
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collections have been removed and used as Intertexts. I have reproduced
the remainder in full to retain the integrity of the original documents.
They carry their own table of contents.

A Routine Rape (1981), Jaki Nidie-Taylor,
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PART ONE
(W)rites of passage: Kinds of (w)riting; Kinds of (k)nowing

Dear Reader,

I have had to make the road as I journeyed through this project in order to create a viable alternative to the conventional form of thesis writing. This writing takes into account my gender as a contributing factor in the interpretation of the knowledges and culture and ways I could bring together a number of discourses and disciplines and my own genre of fiction writing as forms of knowledge, as (W)rites of passage: Kinds of (w)riting: Kinds of (k)nowing.

Rather than a beginning, middle or end, the sections of writing perform Kinds of (w)riting, Kinds of (k)nowing and resist the authorial hegemony of the essay as the best or only way of writing up research.

This thesis requires a reading stance that accepts the challenge to the ‘god trick’ (Haraway 1988:581) of the traditional argumentation thesis form, and enters into the experimental and avant-garde, that place of the unknown where the “monstrous knowledge” (Hodge 1995) can be found.

This thesis takes the intellectual trickster’s path of disruption and unconvention, while at the same time considering the reader a friend. It has been
constructed by an embodied woman, "a concrete, moral and epistemic agent"

(Code, 1995) engaged in deliberations that matter to me.

Embodiment is a recurrent issue in these explorations of theoretical spaces where acknowledgment is readily achieved, or where it is thwarted: where cognitive authority is readily granted, or denied and silenced. The language of rhetorical spaces removes the onus of establishing credibility and gaining acknowledgment away from the abstract 'generalised' disengaged, moral-epistemic individual of the Anglo-American tradition, and into the lives, social structures and circumstances where 'concrete' moral and epistemic agents are engaged in deliberations that matter to them, and often in such spaces discourse becomes a poesis, a way of representing experience, reality, that remakes and alters it in the process.

(Code, 1995: x).

The letters in Part III address the examiners and ask them as they read to consider the volatility of generic conventions particularly the thesis as the generic form said to construct knowledge and truth.

To write on the boundaries of literature, biology, physics, history and neuropsychology requires an intellectual 'trickster' in order to avoid the border controls of disciplinary knowledge(s). This boundary writing is one of the knowledge constructions demonstrated in this thesis. Also demonstrated is knowledge of genres and their mediating and instrumental economic work in the distribution of culture as capital.
I have created a text that welcomes rather than conceals contradictions and tensions. As Ferrell (1992:142) suggested "the semantic field of the border is a rich one. It opens out onto edge, margin, embroidered decoration." Ferrell goes on to characterise this border as a boundary which can produce a sense of xenophobia if crossed. At Ferrell's border the 'slippery' is between philosophy and literature in feminist texts and the truth conditions that can be accorded to each.

It is not my intention that the reader should fall prey to xenophobia, reading my border writing as merely uncharted and scary territory. Rather that you would enjoy the journey as I write what I found out.

All genres can be characterised with reference to their difference from other genres. The Letter, however, retains its character only because it constantly intersects with other genres. The letter can be driven by an epistolary axis, communicating instructions, discovery, just as readily as social history and news. Yet the real joy of the Letter is its capacity to retain the personality, the emotion and the body of the writer. To some degree the correspondent can be a writer, rather than the author, with all the cumbersome intellectual omniopoises that accompanied the 'book' and its fixed, disciplinary territories and tribal rituals.
So far I have described a particular generic system within the American culture industry. I have hinted at how these genres carefully differentiate themselves from their neighbours in terms of their titles, their covers and how they are to be used by their readers. I have defined and sub-divided the genres according to what I call their use-value

(Beebee, 1994:7).

My (w)rites of thesis making are performed by an embodied woman, not a generic subject who knows, whose body only exists 'discursively' or as some 'reconfigured Other'. I am She who (w)rites, reads and knows and I am not part of the dominant group in power:

... one can note that feminist scholarship has always had an ambition to transcend disciplinary boundaries. Like Marxism, it has tended to regard them as constructions of an unenlightened system that are better ignored.

(Barrett 1992:211)

I chose to write as the subject who says "I" because I am She who knows. I claim my sex as an epistemological variable in my knowing and writing. Beebee's (1994) 'use-value' theory of genres helped to present and explain why the thesis is a mixture of genres and disciplines, a 'heterotopia' that makes room for my voice as well.
It is writing, moreover, in which the voice of the sovereign critic gives way to a subject who says “I” who is thus individualised on the level of utterance, but whose discourse is nevertheless a composed, feigned, or if you prefer, ‘a-piece-together’ discourse, the result of a montage.

(Barthes, 1985:10)

In order to make room for my own voice within and against the literary classifications that actually privilege male discourse and in this case the thesis writing genre, I have adopted a writing practice of resistance as I write up my research. I have written my argument as a correspondence, a heterogeneous genre and I have positioned this thesis as a Cultural Studies artefact.

Deborah Tannen makes the point in these terms:

...many aspects of our academic lives can be described as agonistic. For example, on our scholarly papers most of us follow a conventional framework that requires us to position our work in opposition to someone else, which we then prove wrong. The framework tempts — almost requires — us to oversimplify or even misrepresent others' positions, cite the weakest example to make a generally reasonable work appear less so and ignore facts that support others' views citing evidence that supports our own ... The agonistic culture of graduate training means that potential scholars who are not comfortable with that kind of interaction drop out.

(Tannen 1999:10)
In challenging this ‘agonistic’ practice, my project as a whole works in what could be termed a female mode, although not as an essentialist property of women. I can characterise this thesis as an ‘assay’ in a non-hierarchical, personal and open-ended and associative style, which aims to create intimacy through self–reflexive statements on the how and why of my practice. Here I can announce the substitution of unconventional or multiple genres for the traditional essay and I argue for personal over fixed forms.

In so doing I have created a text which makes possible a participatory reading position, a practice which uses the experience of the reader, as a reader and knower, and I challenge the notion that the traditional form of writing the thesis is the only writing that can create knowledge.

My research ‘data’ are the letters and creative pieces in poetry and stories. They are the products of discovery and understanding and not forms of writing epistemological truths. Although I have drawn on the theories of Darwin, Marx, Freud and Einstein for materialist theories of mind, class, physics and history in science and philosophy and literature, I am aware of their privileged textual and literary aspects as the valued knowledge(s) of the usual writing forms which nevertheless resort to the figurative and the literary. The vernacular, decorative and/or foreign are as necessary in philosophy and science as they are in literatures associated with other ways of theorising. Disciplines themselves construct the reading strategies for generic conventions that prescribe and categorise knowledge(s).
(R)ather than represent a ‘new’ form of knowledge the ficto-
critical can suggest ways of entering, drawing together and
changing familiar fields of knowledge ... it can be called a
‘space clearing’ strategy that enables the dialogism, the
hybridizations and the relativism of knowledges to emerge.

(Brewster 1999:209)

This project is a space clearing for the suggestion of Other ways of entering,
drawing together and challenging familiar fields of knowledge including the
thesis – form and content. In doing so I have philosophised both about the
form and the content of knowledge(s) and how we talk about ourselves as
embodied human beings after Darwin, Marx, Freud and Einstein. The theories
of these men have inscripted us auto-bio-graphically as women to be
disembodied, as spare parts or wombs, the Cyborgs of the long haul space
flight of virtual reality. I join Renate Klein in asking the question “[I]f I am
Cyborg rather than a Goddess will Patriarchy go away?” (Hawthorne & Klein,

It is not only feminists who see the powerful sortive and
taxonomic influence of the printed texts. The contemporary
philosopher, Jean Francis Lyotard (certainly no feminist) also
sees the need for a new approach to textuality and discourse
freed from old restraints.

(Arnold, 1999:270)
My professional formation as an educator and as a woman was dominated by Marxist discourse. Initially it was almost an evangelical theoretical lens through which to read the injustice and inequity that dominates the world—and my world. And in some measure Darwin, Freud and Einstein held the same thrall in different measure. But...

[In acting as master-knowledge, Marxism takes the position of the subject, the knower, and its radical ‘partner’ such as feminism, is assigned the role object of knowledge ... Either the ‘other’ valiantly tries to insert herself, her struggles, her knowledge(s) within the master paradigm, expending all her energy in the process, or alternatively finds herself relegated to the status of heretic, playing the role of hysterical other to the cool of Marxist reason, thereby apt to be ridiculed, or simply ignored a hearing.

(Campioni & Grosz in Horsfall, 1998:34)

My practice of thesis (w)riting is that of an embodied woman, not a generic male subject, or one whose body only exists ‘discursively’ as some ‘reconfigured Other’ but rather a she who knows how to read, write and research and a she who knows she is not part of the dominant group in power. This is why I have interrogated these master narratives as part of my auto-biography with the additional epistemological variable of my sex and the empirical and experiential that grounds these narratives in the local, the
personal and the political of everyday life. To make this “turn to culture” (Barrett, 1992:204) I have also appropriated the genre of correspondence as the genre of everyday life, to report on my research, so that it can be read as the ordinary kind of writing that resists another kind of totalising and reification.

In making this turn to culture, in Part III in the genre of correspondence, I am re-appropriating a medieval invention of model letters - a specialist literature whose aim was to control and regulate forms of writing and to set out rules and conventions to each written genre. This was the origin of a species of texts that grew out of the ancient tradition of formularies that dated to medieval chancelleries, and a genealogy that later developed into the novel, the essay and the disciplines of sociology, anthropology and the professions of the seventeenth and eighteenth centuries.

Letter writing can be one sort of ‘ordinary writing’, everyday and private writing like the accounts book, the recipe book or the family record book. They address a community of readers who assign to the texts that it appropriates usages and meanings. They can represent the appropriation and use of a form of competence outside those places that regulate its acquisition. They establish a set of practices of writing without the authority to accumulate, totalise or dominate with predatory skill, the scriptural economy.

Whether it is a question of newspapers or Proust, the text has meaning only through its readers; it changes along with them; it is ordered in accordance with codes of perception that it does not control. It becomes a text only in relation to the
exteriority of the reader, by an interplay of implications and
ruses between two sorts of 'expectation' in combination: the
expectation that organises a reliable reading space (a
literality), and one that organises a procedure necessary for the
actualisation of the works (a reading).

(de Certeau 1984:171)

The epistolary letter, their prescriptions, their circulation and their reception,
provides an insight into the tension that articulates strategies of domination -
whether physical or symbolic - and the inventiveness of appropriations that
govern the practices of everyday life and the tension between text and reading.

Correspondence, with its affiliations to secrecy, the private and the epistolary
"an ordinary kind of writing" (Chartier, 1997:1) has a tradition that goes back
to the ancients. Its more recent invention, in the Middle Ages, began as the
forward march of literacy spreading as a skill that was no longer delegated to
someone else.

As a communication instrument that binds a community of readers together in
a social or familial context that reaches beyond a mnemonic or mimetic
practice, the letter can be part confessional, part discursive argument and part
narrative. It can also be like a diary, a scholarly article and a story all in one.
In commenting on the social structures of its culture its sociological value
emerges. In commenting on the customs and habits of cultures other than one's
own its anthropological value emerges.
The legitimacy of the genre of knowledge making resides in the content, rather than its form. Chartier (1997:1) remarks on the development of literacy via the art of letter writing in these terms, “the Middle Ages invented three forms of rhetoric unknown to the ancients: sermonising technique, poetic art and epistolary science”. In the transition from an oral culture to a textual culture the science of letter writing provided a bridge via the emergence in the central years of the Middle Ages of a new group of intellectuals who promoted the development of a cultural apprenticeship in letter writing techniques.

Traditionally narration and story telling have been viewed as a different genre from argumentation. Arguments were viewed as rational whereas stories were viewed as non-rational and therefore of no real value, yet, as Fisher (1987:49) maintains

\[\ldots\text{[n]}o\text{\ a\ t\ c\ a\ i\ s\ is\ a\ r\ g\ u\ e\ n\ t\ d\} - \text{scientificaly, philosophically, or legally- it will always be a story, an interpretation of some aspect of the world that is historically and culturally grounded and shaped by the human personality.}\]

It is as acts of communication through an exegesis of a variety of texts and genres such as letters, literature, journals, essays and other non-verbal forms of communication that the fabric of culture is woven. Because narrative is universal and local, in writing and in non-verbal genres, it is liberating and empowering as a personal engagement because it doesn’t limit discourse to
those with a special skill or knowledge of traditional argumentation. In this respect traditional methods for the documentation and study of human kind has been given generic and disciplinary boundaries that rely upon specialisation and argumentation that excludes other ways of seeing and knowing social organisation.

The unexpected tripartite of the study of man (sic) both of mankind’s (sic) past and present are to a considerable extent based on man’s (sic) development of first language and later writing … the development of writing created new modes of social organisation, transmission and power.

(Goody & Watt, 1962:304)

Yet, not all forms of writing have been considered as valuable as scholarly discourse or learned treatise. A resistant writing practice is concerned with a critical deconstruction of this tradition, that relegates genres other than treatise or essay to the borderlands of knowledge making as mere literature, poesis or correspondence.

When we talk about genre in writing it usually means the conventions shared between reader and writer about what types of things can be expected in certain kinds of writing … genres trap the flow of writing and reading and contain territories that define boundaries of what is acceptable … not to mention the hierarchy of values as to which genres are better than others.

(Wark 1997:Dec 10)
A critical writing practice seeks to question rather than exploit cultural codes, to explore rather than conceal social and political affiliations. Since genres exist not as essences but as differences, so those places within and between texts and disciplines reveal the devices, the construction marks and the connections between generic status and interpretive strategy.

Knowledge has many metaphors, the image of landscape is one. Another candidate is the seamless cloak, the implications however of a continuity and coherence across disciplines and between disciplines bears poor comparison with the current state of human knowledge.

From the perspective of this thesis construction, the metaphor that best serves is that of a patch work quilt. Some of the constituent scraps of material are loosely packed together. Others overlap, while others have been omitted leaving large and prescient gaps waiting to be filled. This thesis invites the reader to handle the metaphor, to turn it over, the seamless front and the tangled back.

The practice of this thesis:

... [p]rivileges the fragmentary image over the accumulative argument, it foregrounds the borrowed and reconstituted
nature of ideas rather than lay claim to authorial originality
and offers the text as a performance of thinking through rather
than a residue of critical thought

(Barthes 1974 in Sontag, 1983:24)

A number of textual allies can be found amongst writing women who have
succeeded in moving the borders of knowledge making from the thesis of the
'argument culture' (Tannen 1998: 1) of technical discourse, to the narrative as
a research process and production. These can be found across disciplines in
sociology, biography and history where woman writes in her own voice rather
than the normative voice of the seventeenth and nineteenth century reportage
medium of the male civil servant's essay "who were keen to deny, destroy,
disown, disembodied and fragment the body" (Hawthorne & Klein, 1999:185).

The problem with thesis writing is that it is writing. When the
rhetoricians in the academy put a label on thesis writing to
define its difference from narrative for example, it was and is
categorised within prescriptive boundaries. Limits are placed
on thesis writing which arise from the place of writing within
the known boundaries of disciplines.

(Harvie 1994:30).
Mapping the territory of the text: A heterotopia in practice.

This thesis actively engages with Michel Foucault's concept of a heterotopia (1970:xv). That is, a system which draws together seemingly un-alike objects or concepts. The famous example Foucault uses in The Order of Things, is that of a 'certain Chinese encyclopaedia' where, as he writes 'animals are divided according to categories of (a) belonging to the Emperor (b) embalmed (c) tame (d) sucking pigs (e) sirens (f) fabulous (g) stray dogs (h) included in the present classification (i) frenzied (j) innumerable (k) drawn with a very fine camel hair brush (l) etcetera (m) having just broken the water pitcher (n) that from a long way off looks like flies' (1970:xv).

For Foucault this taxonomy produced a 'laughter that shattered ... all the familiar landmarks of my thought'. He argues that its heterogeneous character, through demonstrating, 'the exotic charm of another system of thought' integrates the 'limitation of our own, the stark impossibility of thinking' that shatters speech, sense and system, 'contesting the very possibility of grammar at its source'. (Foucault, 1970:xv).

There has been a revolution that has affected almost every academic field of studies in what used to be called the 'Humanities' and 'Social Sciences'. Arguably its effects have been felt in what can be called the 'hard' sciences as well. Without for the moment getting hung up with definitions I will call this revolution the 'Postmodern' turn. In discipline after discipline it raises issues of epistemology and the process
of intellectual and textual production, in a way that is cumulatively so radical that previous practices of disciplinary knowledge can no longer be assumed as given by those aspiring to profess them at any level ... I want to ask two distinct and overlapping questions. What could or should doctoral thesis be like in a period of intellectual crisis, instability, contestation or revolution? And more specifically what might doctoral theses be like in the 'New' or 'Postmodern' Humanities? I ask these questions as a matter of some urgency because some of the theses currently being written or examined run the risk of being judged by completely inappropriate criteria: as failing the good 'old Humanities' theses, when they should be looked at to see if they are good 'new Humanities' work.

(Hodge, 1995:1)

I shall return to Professor Hodge's paper, dear reader, but for now, I have laboured the length of this quote in order to position this thesis in the 'Postmodern turn' in order to offer you a reading strategy from which to approach this thesis.

I have titled this section "A heterotopia in practice" (Foucault 1970) which refers to a "system of seemingly unalike objects", that can be applied to the mixing of genres and the treatments of the topics of this thesis. In Part III I have placed three genres, to each topic: a piece of fiction; a piece of correspondence and, an appropriated text that takes a different position on the topic. For example 'W)riting Madness' fictionalises insanity, whilst the Letter explores the natural history of madness, and the appropriated text critiques the
Freudian psychoanalytical treatment of pathology. I may have pushed the
boundaries of ‘proper’ quotation and ‘appropriation’ but I have not stepped
outside of them.

This placing of genres is the heterotopia that runs through the thesis. And,
rather than feign expertise in disciplines not my own, I have invited other
correspondents to present their views on the topics in full in order that the
reader might compare and contrast for themselves. Elizabeth Grosz puts the
matter this way:

No one method, form of writing, speaking position, mode of
argument can act as representative model or ideal for feminist
theory. Instead of attempting to establish a new theoretical
norm feminist theory seeks new discursive space, a space
where women can write read and think as women. This space
will encourage a proliferation of voices instead of an
hierarchical structuring of them, a plurality of perspectives
and interests instead of the monopoly of the one-new kinds of
questions and different kinds of answers.

(Grosz, 1992:368).

To which I would like to add, and new kinds of practices that demonstrate
knowing and culture making.

Culture is a place where the social arrangements of gender can be contested.
Cultural ideologies and institutions reinforce the dualistic separation of male
and female. This is particularly so for women’s place in cultural production (as artists, authors, patrons and members of cultural institutions) and in the dominant modes of cultural representation, such as literature and the visual arts, where the constructed notions of gender have a strong presence.

To return to Professor Hodge:

…the central characteristic of the ‘New Humanities’ is that it refuses this system of disciplinarity. It deconstructs its taken-for-grantedness, the unquestioned sense that the boundaries around the existing disciplines are inherent features of knowledge. It also inspects the disciplinary processes themselves, to see the work that they do in constructing and forming human subjects, constructing also the objects of knowledge that define their institutional existence as authorised knower.

(Hodge 1995:2)

This is particularly relevant given my passionate interest in neurophysiology and its role in learning, teaching and daily life. My background degrees in education do not give me an ‘authorised knowing’ from biology, medicine, physics or anthropology and yet my interest in these fields led to my research projects. I do not wish to be seen to be reinvesting science with superior truth claims, yet in the forming of human subjects scientific literacy is as relevant as other literacies including literary theory and literature. This thesis ‘works’ to rejoin the sciences and literatures.
And this raises an important issue in the construction of the postgraduate thesis making and since Professor Hodge’s paper makes the case so succinctly from within the academy I shall call on him once again.

Oppressively central to this idea of a doctorate is some notion of ‘originality’, seen as an obligation to change the whole field of knowledge in some undefined way, which is always at risk of being overtaken by some other work, perhaps as yet unpublished, or even worse, known to everyone else other than the candidate.

(Hodge 1995:2)

In the works of Foucault (1926 – 1984) discourses are much more than ways of constituting knowledge. They include social practices and forms of subjectivity and power relations that inhere in such knowledge(s). The most powerful discourses have firm institutional locations such as law and medicine though these too must be seen as sights of contest as no hegemony can be seen as a closed system.

Research is a defining term for the core activity of postgraduate and doctoral work. The word comes via the French ‘recherche’ from the Latin ‘re-circare’ – to circle around repeatedly. Research is a process as well as a product. The research in this thesis draws on a tradition of experimental avant-gardism able to affirm different kinds of order, accepting discontinuities, contradictions, resisting imperialist discourses of power and authority and recognising the
validity of "heterotopia" and 'other' voices, roles and subjectivities and (w)rites of passage.

Rather than the pure position of the primacy of discourse being the marker of postmodern thought I see awareness of the problem of discourse as a better marker.

(Hodge, 1995:7)
Notes to the reader: From Intertexts to Hypertexts.

These texts are ‘things made’ derived from the Latin ‘Fingere’ to make or to shape, written by the Other as well as about an Other. This thesis written by the ‘Other’ is about transgression and border crossings. Its epistemology is drawn from my experience and outrage at the class divides and sexism I experience as a white woman in Australian society. It is local, and subjective knowledge, by a ‘she’ who knows, an epistemology of a gendered female subject, who has sought to explain the world to herself, rather than allow the meta-narratives to explain it for her against the phallocentrism of maleness.

If we look at the etymology of the word ‘history’ we find it hides a double meaning. Coming originally from the Greek it meant ‘inquiry’ or ‘investigation’. It soon acquired two meanings, on the one hand ‘things that have happened’ and on the other hand ‘a recorded version of things that are supposed to have happened.’ In our ordinary conversation ‘fact’ is associated with ‘reality’ or ‘truth’, whilst fiction is considered the consort of ‘unreality’ and ‘falsehood’. Fact still means for us ‘a thing done’ and fiction has never quite lost its meaning of ‘a thing made’. In the world of fiction ideas are allowed to play unencumbered by ‘data’, but not without an epistemology or gender. Literature can also ‘investigate’ and ‘inquire’ into what anthropology aspires to as a discipline that studies the ‘Other’. (W)riting looks at the observers role in the inquiry process … And so the texts, become intertexts, a
‘braiding’ of genres and disciplines, as inquiry and investigation, about things that matter to me. And this is the leitmotif of all four sections of the thesis.

The notion of ‘inter-textuality’ was formulated and developed by Julia Kristeva (1986:10) who refers to the way genres of textual production inform one another across disciplines and genres.

Any alleged comprehensive, coherent outlook is at best no more than a temporarily useful fiction, masking chaos, at worst, an oppressive fiction masking relationships of power, violence and subordination. Texts of every category are rhetorical strategies that serve political functions, and a hermeneutics of suspicion is called for in what Lyotard terms the postmodern condition as “an incredulity of meta narratives” (Jean Francis Lyotard 1984).

The term ‘hypertext’ was originally coined by media philosopher Theodore H. Nelson in 1960. But its origins can be traced to a pioneering article by an engineer Vannevar Bush, that appeared in a 1945 article of Atlantic Monthly (USA) (August 1945). In it Bush called for mechanically linked machines to help scholars and decision makers faced with what was becoming an explosion of information, to liberate us from the confinement of inadequate classification systems and permit us to follow natural proclivities for selection by association, rather than indexing.

I have resisted the androcentric science of Darwin, Marx, Freud and Einstein, each of whom can be read as the auto-bio-graph of everyone and read against
the grain. This resistance practice is made possible by linking the notions of Intertext, Hypertext and Heterotopia, with the ‘postmodern turn’. Now the space appears for me to (re)insert my own self-writing of a subjective local agent in the braiding of voices, disciplines and knowledge(s) in this text, in order to make sense of the world-as-a-text. You may enter and engage at any point and ‘follow your natural proclivities.’
PART TWO
PLEASE NOTE:

The greatest amount of care has been taken while scanning the following pages. The best possible results have been obtained. For more clarification, please see the original print version.
PART THREE
PLEASE NOTE:

The greatest amount of care has been taken while scanning the following pages. The best possible results have been obtained. For more clarification, please see the original print version.
Notes to the Reader

Intertext # 1

A Map of the World: A Thesis in Three Parts

This is not the traditional thesis of a report on a topic. Rather it is a multi-layered and intertextual personal journey through my three authorial voices to finding a self that owns all three voices.

The journey begins with the prose and poetry of *A Routine Rape* in which I give voice to my oppression by the patriarchal Other. The second voice is that of *The Unquiet Heart and Other Misfits* in which I become self conscious and analytical and begin to take control of my life in the face of the patriarchal Other. The third voice is that of my Correspondence where I claim an academic voice and engage with the Other of patriarchy as an equal in knowledge production on a variety of topics.

These three voices are interrelated and build upon each other and develop out of each other. Thus this thesis is about (W)rites of my passage as a writer of fiction and poetry. My two collections of fiction *A Routine Rape* and *The Unquiet Heart and Other Misfits* can be read from a number of perspectives. As polemic, autobiography and philosophy which taken together form a body of work that investigates and maps the world, and as with Hermes I have promised not to lie and also perhaps not to tell the truth, since such a notion slips away like mercury.
They are presented here as a self portrait, a portrait of a woman at work deeply engaged about the moral and ethical problems of contemporary life, and how to make sense of being female and alive. I am writing for my life, wordsmithing a map, a fiction and a thesis about genres and kinds of knowing through reading and writing.

My fictions are theorised though not theory driven and I position them in critical social theory, and gender and cultural studies, although they could just as easily be classified under other rubrics.

My fiction is a map of the world, a meditation on a journey of survival, as is this thesis. In the appropriated essays/correspondence I have eavesdropped on the men in conversation with each other about theories and ideas as to how nature and culture works for them. In the 'trickster's' gesture of "Dear Jaki", I have turned the God-trick essay into a reading strategy of correspondence in order to include male conversations and to insert myself in dialogue with them.

This thesis taken as a whole is a map of the world and my journey through it. It is a hypertext and intertext in practice and performs and un masks the heterotopeia of all cultural production and its gendered nature as kinds of (w)riting and kinds of (k)nowing, and as always is a work in progress.
LETTERS

Latin rhetoricians made a convenient distinction between the private letter (personalis) and the letters of affairs (negotialis). A third kind is the open letter or general letter addressed to an individual or a newspaper intended for publication. Some manuals of letters survive from classical times. In the Middle Ages many medieval treatises on rhetoric were also "guides" to letter writing. Nearly any sort of letter may be of the use to the historian and the biographer. A very famous collection is "The Passion Letters" (c1422-1509), the correspondence of three generations of a Norfolk family. Other well-known collections of letters are those written by Mozart, Keats, Flaubert and Horace Walpole....

(Cuddon 1977: 359).
Dear Jaki...
Intertext #2

(W)riting a Journal of a Journey...After Darwin...(1809-1882).

The prose piece, journal of a journey, looks at the metafictional processes in (w)riting science as a representational journey that leads to theoretical and cultural productions ... ‘there goes one, throw in the ...how beautiful it is, so full blooded, so neat and right and round ... O what a delight, O Christ it got away ... one can never hold that sort for long ... but what a gem it was ...’.

The letter, Dear Daniel *... looks at the role in the development of the ‘primate’ nervous system in the innate and learned aspects of making representations form art to alphabet ... I am writing today, with a quote that takes up, or rather encapsulates an end point of my research into the nervous system ... the ‘trickster’s’ reply ... Dear Jaki ... gives a more detailed account of what and how Darwin’s dangerous idea might give some insight into the ‘origins’ of this cognitive and emotive behaviour ... when I was a schoolboy my friends and I used to amuse ourselves with fantasies about an imaginary chemical we called a universal acid ...

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* Professor Daniel Dennett, Professor of Sciences, Tufts University, USA.
Journal of a Journey

There goes one, throw in the line. How beautiful it is, what a gem, such a fatty, so full-blooded, so neat and right and round. O what a delight! O Christ - if got away. One never can hold that sort for long, but what a gem it was.

Here comes another big one. Look at that. What you couldn't make with half a dozen of those strung together through a day. O goodness, yes, one could really get something happening if only they could be caught and kept together like a string of beads. But one doesn't often have such expertise. Mostly one catches the tiddlers, those skimpily darting, silly, fleshless things that flit and float as so much debris on the surface of the pool, just getting in the way, just come to see, to divert, to play - funny inconsequential little things, food for the bigger ones, trappings, accoutrements for the pool itself, mercurial baubles, ephemeral but daily things. One really must go deeper to get at the better catches.

Yes, one must dive down. One must let go of the surface, not sinking but diving; down past the schools of tiddlers, down past the occasional schools of bright, neat, colourful ones, even further down past the rare fat ones. Get out the spear gun, have it at the ready for the big catch. On the way into this
velvet land, one is tempted to go off at the tangent to follow that dazzling beauty, that strangely shaped one, that lazy sluggish one, or that spritely one that just disappeared from sight. But no, we are after stranger fish. We are after the odd-balls and the misfits, we are after the renegades, the rebels, the most beautiful, the most ugly - we are after treasure, and peculiar treasure at that; the most elusive of treasure; treasure one has not often seen; a treasure rarely seen by anyone if fact.

Ah yes, an unseen treasure but one spoken of, whispered about, glimpsed and gleaned, occasionally spied and always extolled, a light, lively jewel of a fish. If only one could catch it, could spear it and bag it, and with a great sigh of delight and triumph, scurry and strive back up through the layers of velvet black pool, through the phosphorous with it.

But the search must continue. What one encounters in the dive: what cosmology, what pain, what delight, what sights to behold!

Horror! Look at that one, an ugly, obese, ponderous thing, hardly able to move, it sidles ever so slowly by, filling almost all the available space, almost all the available light, blocking out all else, taking over as far as the eye can see with its darkness. One wonders if one can ever move past it;
one struggles against the disgusting thing, feels much horrible pain, feels the
disease of the thing creating the temptation to rush to the surface, to scream,
to give up. One is frozen by the spectacle, while the thing simply ambles
slowly on.

And then one hurries bravely down to the next level, looking curiously at
this new place, still part of the same pool but a section more south than
north, more south of that recent west. It's quite dark here, almost black
except for the one light back at the surface and, immediately in front, the
occasional pinpricks, little stars of light which hover temptingly ahead. And
after all one feels wonderful at this level, past that first barrier of pain. One
gains courage and strength from those little stars of light.

All is quiet. All one does is stop and let the current take over, and one rests
here to waft and wave, to rise and fall, taking a deep breath, preparing to go
deeper, preparing for another dive - with one's sights set on that treasure, not
knowing how far one still must go but knowing that the goal is more urgent
after the effort already expended. So one relaxes and floats in the half dark
of it, aware of the points of the light ahead, aware of the sensation of this
halfway down and halfway up pause. Such peace lies here.
But not for long. One has drifted long enough. One is rested, is curious again, become bored with this area of nothingness. And suddenly the current changes and one must decide to let it take you or to follow that larger light, almost the size of a lamp, just discernible below the pinpricks. With that, one gives an almighty kick and flings oneself onto the trail of that plunging lamp of light.

With this, the scene turns pitch black, no longer the fragments of light but only that large flash down below. One determines to reach it, sets chase. And the chase carries one into a place sort of east of west, into that territory where the life takes on the shape of flowers that are all in bloom, flowers with the exotic perfume that are electric pink, blue, red, purple, yellow, that are multi-coloured and fantastic. One longs to pluck them, to say here at last is my treasure! So one reaches out to begin the gathering. Not even a spear is needed for this catch. One reaches out to reap this harvest of beauty, to wrest this treasure and ride with arms full to the surface and, once there, to fling it out and say Look! Look! Just look at this beauty, this glory that I have found! Yes, one says, and opens the basket ready to fill it. But it's not so simple as it seems. At the touch each petal switches off, becomes a sepia tone and finally crumples as the atoms crackle like broken glass between the fingers.
The disappointment is indescribable. All this way, only look, to wonder at, but not to claim, not to gather, to harvest this treasure. Surely one does not have to seek further? Surely this would have been sufficient? If only the harvest could have been yielded.

One turns away and leaves the garden, swimming first this way then that, lurching in despair, knowing not whether to give up or to dive further. The thought occurs that perhaps all treasure is of the nature of the flowers. Perhaps the more beautiful, incredible, extraordinary the treasure, the less gatherable it remains.

But with a sigh one perseveres ... it is too far now to turn back. So down, then down, down and down, deeper into the aeons of black and on past other gardens, past the luminous hieroglyphics of this land, past the fireworks of sanity and past the carnivals of the time.

Now one reaches the floor of the pool where one sees those dark ones with lassoes at the ready, the dark ones that live on the edge of reality, that lurk here and are waiting to catch just such prey as oneself, who has had the audacity to probe beneath the surface. Things at this depth become strange, grotesque and unrecognisable. One is very afraid or very fearless,
depending on the temperament. One runs away or stops and looks around, scrounges so to speak, investigates and scrutinises each piece of this space. But mostly one waits, and watches the bizarre procession that filters past the antenna of light that gleams from the lamp.

One waits, one gains a foothold, one watches, and one grasps the spear at the ready. One has by now become discerning; one has dismissed many beauties, many of the ugly, many of the strange. One takes the risk that it might pass by unrecognisable and settles in to wait for the big catch, a catch so rarely seen.

And how slowly the time passes. How the body and the brain begin to tire of this rigid and watchful position. The minutes become hours, the hours begin to feel like days and the days like years. Still one waits, and watches the long procession...

...Until the treasure almost passes, until it is halfway beyond you and moving very quickly, stealthily even. One recognises the treasure almost as one loses it; having grown tired from the long journey and the endless waiting, having in fact almost given up.
But no, one sees it. One raises the spear, darts forward and grabs. A catch at last! At last one superb example! At last, at last - a vision, an idea, an understanding!

© Jaki Nidie-Taylor in *A Routine Rape*, 1981: 56
Dear Daniel,

Everything it would seem is 'After Darwin' these days. Yes, and his dangerous ideas which you write so very fluently about. It could be said that Darwin has written the auto-bio-graph of every one. Certainly he offers a tantalising 'once upon a time' scientific and satisfying analysis of homo sapiens' origins that takes the 'godism' out of the theological story of genesis. At least for me. And the multiplications for philosophy and other disciplines can not be over-looked when talking about us.

The sharp distinction commonly drawn between mankind (sic) and the lower animals, rooted, so far as the western world is concerned, in the biblical fable of the creation, has, from the evolutionary standpoint at any rate, long ceased to be tenable as a logical antithesis. The light cast upon the origin of the human race by biological research has penetrated many dark places and left no shadow of justification for the old fashioned dogmas of religious orthodoxy with regard to this important question.

Still, not everybody holds this view I know and contingent as it well may be with regards other 'origin' theories and narratives I find Darwin's thesis is reliable knowledge for a work in progress about how homo sapiens can talk about themselves in biological terms. This, in philosophical terms, amounts to an explicitly biological ontology, and from that an epistemology that is both
nature and culture in the development and adaptation of human being to an environment and an ecology.

I am still amazed that philosophers can leave so much physiology out of their discussions about values formation, and that the semantic rides roughshod over ideas such as the ‘mind/body’ split, so called, when the brain and the central nervous system taken as a whole, makes a case for a developmental process in human beings, in relationship with a culture and an environment.

As an educator, I have found that a good understanding of physiology and anatomy offers as much insight into the learning environment as does the discussion of philosophy or literature. The capacity to learn, remember, reason and write depends first and foremost on a well functioning and healthy brain and nervous system inside a healthy body.

As you say in your letter ‘some people hate the very idea of explaining human culture in evolutionary terms. I think they make a great mistake ... Why should people flinch from carrying Darwin’s idea to its logical conclusion. The answer I think is fear. They are afraid that the idea will not just explain, but will explain away everything that they hold dear’.

And yes, I can’t help but agree with you about the fear that Darwin’s idea imposes on us. We have become decentred as a species, rather than be half ‘gods’ and half ‘angel’ we find ourselves emerging from the slime like
everything else. We can no longer pretend an innocence about our place in the scheme of things and really, my child is still my child, a good wine is still a good wine.

The burning political and philosophical questions remain as to how Darwin’s theory can be put to use in the improvement of the human condition rather than its further exploitation and abuse.

Thank you for such a detailed discussion.

Jaki
Dear Jaki,

When I was a schoolboy, my friends and I used to amuse ourselves with fantasies about an imaginary chemical we call universal acid. I have no idea whether we invented it or inherited it, along with Spanish fly and saltpetre, as part of underground youth culture. Universal acid is a liquid so corrosive that it will eat through anything. The problem with universal acid, of course, is what to keep it in. It dissolves glass bottles and stainless-steel canisters as readily as it does paper bags. What could happen if somehow you came upon a dollop of universal acid? Would the entire planet eventually be destroyed? If not, what would be left? After everything had been transformed by its encounter with universal acid, what would the world look like?

Our speculations were a diverting joke; none of us expected to come in contact with such corrosive material. Yet in only a few years I would encounter something bearing as close a likeness to universal acid as anyone could wish. It was not a chemical but an idea - one that eats through virtually every traditional concept, leaving in its wake a revolutionized
world view, with most of the old landmarks still recognisable but transformed in fundamental ways. It was the idea the Charles Darwin, in 1859, unleashed on an unsuspecting world.

I was not the first to realise that I was dealing with dangerous stuff. From the moment of publication of "The Origin of the Species", Darwin's fundamental idea has inspired intense reaction, ranging from ferocious condemnation to ecstatic allegiance, sometimes tantamount to religious zeal. Darwin's theory has been abused and misrepresented by friend and foe alike. It has been misappropriated to lend scientific respectability to appalling political and social doctrines. It has been pilloried in caricature by opponents, some of whom would have it compete in the schools with "creation science", a pathetic hodgepodge of pious pseudoscience.

Almost no one is indifferent to Darwin, and no one should be. The Darwinian theory is a scientific theory, and a great one, but that is not all it is. The creationists who oppose it so bitterly are right about one thing: Darwin's dangerous idea cuts much deeper into the fabric of our most fundamental beliefs than many of its sophisticated apologists have yet admitted, even to themselves. Even today, more than a century after Darwin's death, many people still have not come to terms with its mind-boggling implications. Perhaps, they think, one can distinguish the parts of
Darwin's idea that really are established beyond any reasonable doubt from the other, more speculative parts. Perhaps the rock-solid scientific facts would then turn out to have no stunning implications for religion, or human nature, or the meaning of life, whereas the parts of Darwin's ideas that get people so upset could be quarantined as controversial extensions, or mere interpretations of the scientifically irresistible parts. That would be reassuring.

But alas, that is just about backward. There are vigorous controversies swirling around in contemporary evolutionary theory, but people who feel threatened by Darwinism should not take heart from that fact. Most - if not quite all - of the controversies concern issues that are "just science"; no matter which side wins, the outcome will not undo the basic Darwinian idea. That idea, which is as secure as any in science, really does have far-reaching implications for visions of what the meaning life is or could be. Among other things, Darwin changed forever what it means to ask, and answer, the question, Why?

The Great Chain of Being

To appreciate how deeply Darwin's universal acid has etched its way into the intellectual landscape; it may help to see how the world looked before Darwin invented it. A passage written by the English philosopher John
Locke in his "Essay Concerning Human Understanding" published in 1690, perfectly illustrates the conceptual blockade that was in place before the Darwinian revolution:

Let us suppose any parcel of Matter eternal, great or small, we shall find it, in it self, able to produce nothing.... Matter then, by its own Strength, cannot produce in its self so much as Motion: the motion it has, must also be from Eternity, or else be produced, and added to matter by some other Being more powerful than matter ... But let us suppose Motion eternal too; yet Matter, incognitive Matter and Motion, whatever changes it might produce of Figure and Bulk, could never produce Thought.

So that if we will suppose nothing first, or eternal; Matter can never begin to be: If we suppose bare Matter, without motion, eternal; Motion can never begin to be: If we suppose only Matter and Motion first, or eternal; Thought can never begin to be.

The argument may seem strange and stilted to modern readers, but Locke himself thought he was just reminding people of something obvious: mind must come first, or at least it must be tied for first. And so it seemed to many brilliant and sceptical thinkers before Darwin. Behind their thinking lay a top-to-bottom view of things often described as a ladder, a tower or, in the memorable phrase of the American intellectual historian Arthur O. Lovejoy, a "great chain of being." Locke's argument invoked a particularly abstract version of the hierarchy, which I call the cosmic pyramid:
God
Mind
Design
Order
Chaos
Nothing

Everything finds its place somewhere in the pyramid - even blank
nothingness, the ultimate foundation. Not all matter is ordered; some is in
chaos; only some ordered matter is also designed; only some designed things
have minds and, of course only one mind is God.

What is the difference between order and design? As a first stab, I would
say that order is mere regularity, mere pattern; design reflects Aristotle's telos
an exploitation of order for a purpose, as in a cleverly designed artefact.
The solar system exhibits stupendous order, but (apparently) it has no
purpose - it is not for anything. An eye in contrast is for seeing. Before
Darwin, the distinction was not always clearly marked, but Darwin
suggested a division. Give me order and time, he said, and I will give you
design - without the aid of mind.

Kinds, Essences and Change

Darwin did not set out to find an antidote to Locke's conceptual paralysis or
to pin down a grand cosmological alternative. His aim was slightly more
modest: he wanted to explain the origin of species. The naturalists of his
day had amassed mountains of facts about living things and had succeeded in systematising those facts along several dimensions. Two great sources of wonder emerged from that work. First were all the discoveries about the impressive adaptations of organisms. Second was the recognition of the prolific diversity of living things: it had begun to dawn on people that literally millions of kinds of plants and animals inhabit the earth. Why were there so many?

Even more striking were the patterns discernible within that diversity, particularly the huge gaps between many organisms. There were birds and mammals that swam like fish, but none with gills. There were dogs of many sizes and shapes, but no dogcats or dogcows or feathered dogs. The patterns cried out for classification. Aristotle taught that all things - not just living things - have two kinds of properties: essential properties, without which they fail to be the particular kind organism they are, and accidental properties, which are free to vary within the kind. And along with each kind of thing came an essence. Essences for Aristotle were definitive: timeless, unchanging, all or nothing. A thing could not be rather- silver or quasi-gold or a semi-mammal. Species of organisms were deemed to be as timeless and unchangeable as the perfect triangles and circles of Euclidean geometry.

On the outskirts of that deliciously crisp and systematic hierarchy lurked a plethora of awkward and puzzling facts. There were all manner of hard-to -
classify intermediate creatures, which seemed to have parts of more than one essence. There were curious higher-order patterns of shared and unshared features: Why should it be backbones and not feathers that birds and fish share, and why should a creature with eyes or carnivore not be as important a classifier as is warm-blooded. Which principle of classification should count? In Plato's famous image, "which system carved nature at the joints"?

What Darwin provided was the first background theory for showing why one classification scheme would get the joints right. The solution, he argued, was to take an historical approach. Species are not eternal and immutable: they have evolved over time and can give birth to new species in turn. The idea was not new; many versions of it had been seriously discussed since the time of the ancient Greeks. But there was a powerful Aristotelian bias against it: essences, after all, were unchanging; a thing could not change its essence, and new essences could not be born (except, of course, by God's command in episodes of Special Creation). Reptiles could no more turn into birds than copper could turn into gold.

To imagine how the idea of evolution must have struck Darwin's contemporaries, consider how you would react if someone announced that, long, long ago, the number 7 had been an even number and that it had gradually acquired its oddness by exchanging some properties with the ancestors of the number 10 (which was once a prime number). Utter
nonsense, of course, Inconceivable. Yet that was just the kind of conceptual leap Darwin demanded of his peers. In "The Origin of the Species" he set out both to prove that modern species were revised descendants of earlier species - species had evolved - and to show how that 'descent with modification' had taken place. The book presented an overwhelmingly persuasive case for the first thesis and a tantalising case in favour of the second. Suddenly the burden of proof shifted to the sceptics: Could they show that Darwin's arguments were mistaken? Could they show how natural selection would be incapable of giving rise to the effects he described? Given all the signs of historical process that Darwin had uncovered - all the brush marks of the artist, you might say - could anyone imagine how any process other than natural selection could have led to all those effects?

Algorithmic Processes

Darwin succeeded not only because he documented his ideas exhaustively but also because he grounded them in a powerful theoretical framework. In modern terms, he had discovered the power of an algorithm.

An algorithm is a formal process that can be counted on - logically - to yield a certain kind of result whenever it is "run" or instantiated. The idea that an algorithm is a foolproof and somehow "mechanical" procedure has been
around for centuries, but it was the pioneering work of Alan M. Turing, Kurt Gödel and Alonzo Church in the 1930's that more or less fixed the current understanding of the term. Three key features of algorithms are important here:

Substrate neutrality: the power of the procedure is a result of its logical structure, not the materials that happen to be used in carrying it out. Long division works equally well with pencil or pen, paper or parchment, neon lights or skywriting, using any symbol system you like.

Underlying mindlessness: Although the overall design of the procedure may be brilliant, or may yield brilliant results, each constituent step is utterly simple. The recipe requires no wise decisions or delicate judgments on the part of the recipe reader.

Guaranteed results: Whatever it is an algorithm does, it always does it, provided the algorithm is executed without misstep. An algorithm is a foolproof recipe.
Algorithms need not have anything to do with numbers. Consider the process of annealing a piece of steel. What could be more physical, less "computational", than that? The blacksmith repeatedly heats the steel and then lets it cool, and somehow in the process it becomes much stronger. How? Does the heat create special toughness atoms that coat the surface? Or does it suck out of the atmosphere subatomic glue that binds all the iron atoms together? No, nothing like that takes place.

The right level of explanation is the algorithmic level: As the metal cools from its molten state, it begins to form a solid in many spots at the same time, creating crystals that grow together until the entire mass is solid. The first time that takes place, the arrangement of the individual crystal structures is less than optimal: they are weakly held together, with lots of internal stresses and strains. Heating the steel again - but not all the way to melting - partly breaks down those structures, so that, when next they cool, the broken-up bits adhere to the still solid; bits in a different arrangement. It can be mathematically proved that the rearrangements tend to form a progressively stronger total structure, provided the heating and cooling are done just right.

To understand annealing in depth you have to learn the physics of all the forces operating at the atomic level. But the basic idea of how and why the
process works can be lifted clear of those details and put in substrate-neutral terminology. For example, metallurgical annealing has inspired a general problem-solving technique in computer science known as simulated annealing, a way of getting a computer program to build, disassemble and rebuild a data structure (such as another program) over and over, blindly groping toward a better - sometimes - even an optimal - version.

Similarly, Darwin's ideas about the powers of natural selection can be lifted out of their home base in biology. Darwin himself had few inklings about the microscopic processes of genetic inheritance (and those turned out to be wrong). Because of substrate neutrality, however, his basic insights have floated like a cork on the waves of subsequent research and controversy, from Mendel to molecular biology.

Universal Acid, Redux

Here, then, is Darwin's dangerous idea: the algorithmic level is the level that best accounts for the speed of the antelope, the wing of the eagle, the shape of the orchid, the diversity of species and all the other occasions for wonder in the world of nature. Incredible as it may seem, the entire biosphere is the outcome of nothing but a cascade of algorithmic processes feeding on chance. Who designed the cascade? Nobody. It is itself the outcome of a
blind algorithmic process. As Darwin himself put it, in a letter to the British geologist Charles Lyell shortly after the publication of "Origin".

I would give absolutely nothing for the theory of natural selection, if it requires miraculous additions at any one stage of descent ... If I were convinced that I required such additions to the theory of natural selection, I would reject it as rubbish.

The idea of evolution by algorithm is still controversial. Today evolutionary biologists are engaged in a tug-of-war between those who are relentlessly pushing toward an algorithmic treatment and those who, for various submerged reasons, are resisting the trend. It is rather as if there were metallurgists around who were disappointed by the algorithmic explanation of annealing. "You mean that's all there is to it? No microscopic superglue especially created by the heating and cooling process?" Nobody denies that evolution like annealing works: what is at issue is Darwin's radical vision of how and why it works. The forces of resistance can dimly see that their skirmish is part of a wider campaign. If the game is lost in evolutionary biology, where will it end?

Like universal acid, Darwin's idea quickly began to eat its way out of its original container. If the redesign of organisms could be a mindless, algorithmic process of evolution, why could that process itself not be the product of evolution, and so forth, all the way down the cosmic pyramid?
And if mindless evolution could account for the breathtakingly clever artefacts of the biosphere, how could the products of our own minds be exempt from an evolutionary explanation? Darwin's idea thus also threatened to spread all the way up, dissolving the illusion of human authorship, our own divine spark of creativity and understanding.

In response, anxious thinkers have waged a number of failed campaigns to contain Darwin's idea within some acceptably safe, partial revolution. Cede some or all of modern biology to Darwin, perhaps, but hold the line there. Keep Darwinian thinking out of cosmology, out of psychology, out of human culture, out of ethics, politics and religion! (Among those who favour holding the line within biology itself, Stephen Jay Gould has offered several post-Darwinian counter-revolutions). The forces of containment have won many battles and, to their credit, have exposed and discredited many a flawed application of Darwin's idea. But new, improved waves of Darwinian thinking keep coming.

Order and Design

Like any good revolutionary, Darwin did not simply topple the old system: he adapted as much of it as possible to his own purposes. Under his influence the cosmic pyramid took on a new meaning, hinging on a radically altered concept of design. Many philosophers had regarded the existence of
design as proof of the existence of God. The late eighteenth century theologian William Paley compared the intricacy of the universe to that of a watch found on a heath in the wilderness. Where there is a watch, can there fail to be a watchmaker?

As Paley pointed out, a watch exhibits a tremendous amount of work done. Watches and other designed objects do not just happen; they are the product of what modern industry call R&D - research and development- and R&D is costly, in both time and energy. Before Darwin the only model of a process whereby R&D could get done was one that invoked an intelligent artificer. What Darwin saw was that in principle the same work could be done by a different kind of process that distributed the work over huge amounts of time, thriftily conserving the design work that had been accomplished at each stage so that it did not have to be done over again.

Another way of looking at the difference - and the tight relation - between design and order was popularised by the Austrian physicist Erwin Schrödinger. In physics, order or organisation can be measured as differences in heat between regions of space-time; entropy is simply disorder, the opposite of order. According to the second law of thermodynamics, the entropy of any isolated system increases with time. In other words, things run down, the universe is unwinding out of a more ordered state into the ultimately disordered state called its heat death.
What, then are living things? They are things that resist crumbling into dust, at least for a while, by not being isolated - by taking in from their environment the wherewithal to keep life and limb together. The psychologist Richard L. Gregory of the University of Bristol in England sums up the idea crisply:

Time's arrow given by Entropy - the loss of organisation, or loss of temperature differences - is statistical and is subject to local small-scale reversals. Most striking: life is a systematic reversal of Entropy, and intelligence creates structures and energy differences against the supposed gradual "death" through Entropy of the physical Universe.

A designed thing, then, is either a living thing or a part of a living thing, or the artefact of a living thing, organized in the service of the battle against disorder.

It is not impossible to oppose the trend of the second law, but it is costly, as Gregory dramatised with an unforgettable example. Suppose you decided to reverse entropy by unscrambling an egg. How much would it cost to make a device that takes scrambled eggs as input and delivers unscrambled eggs as output? Even with an unlimited budget the most brilliant engineers could not do it. But there is a ready solution: a live hen. Feed it scrambled eggs,
and it will be able to make eggs for you - for a while- thanks to the design built into it.

The more design a thing exhibits, the more R&D work must have been done to make it. In Darwin's conception, the vertical dimension of the cosmic pyramid becomes the measure of how much design has gone into items at a given level. Minds still end up near the top, but only because they are among the most advanced effects (to date) of the creative process - not, as in the old version, its cause or source. And the products of human minds, namely, human artefacts, must count as more designed still. That might seem counter-intuitive at first; surely a paper clip is a trivial product of design compared with any living thing, however rudimentary. But imagine yourself walking along an apparently deserted beach on an alien planet. Which discovery would excite you more: a clam, or a clam rake?

Cranes and Skyhooks

Now imagine all the "lifting" that must have been needed to create the magnificent organisms and (other) artefacts in the upper reaches of the cosmic pyramid. Vast distances must have been traversed since the dawn of life and the earliest, simplest self-replicating entities. Darwin has offered an account of the crudest, most rudimentary, stupidest imaginable lifting
process: natural selection. By taking the smallest possible steps, the process can gradually, over eons, traverse those huge distances.

Could it really have happened that way? Can Darwin's mindlessly mechanical algorithms really get all the way to here (the world of wonders we all inhabit) from there (the world of chaos or utter undesignedness) in only a few billion years? Or did the process need a leg up now and then, if only at the very beginning, from some sort of 'mind first' force or power or process? In short, does evolution need a skyhook?

Skyhook. Orig. Aeronaut. An imaginary contrivance for attachment to the sky: an imaginary means of suspension in the sky.

— Oxford English Dictionary

The first use of the term noted by the OED dates from 1915 when an aeroplane pilot, commanded to remain aloft for an hour beyond the planned landing, replied, "Submitted: that this machine is not fitted with skyhooks."

Skyhooks would be wonderful things to have: miraculous lifters, unsupported and insupportable, great for hauling unwieldy objects out of difficult circumstances and speeding up all sorts of construction projects. Sad to say, though, there are no skyhooks.
But there are cranes. Anyone who is, like me, a lifelong spectator at construction sites surely has noticed with some satisfaction that it sometimes takes a small crane to set up a big crane. And it must have occurred to many other onlookers that, in principle the big crane could be used to build a still more spectacular crane. In principle (if not in real-world construction projects), there is no limit to the cascade of cranes that could be organized to accomplish some mighty end. In the Darwinian context cranes are natural evolutionary subprocesses or features that speed up the basic, slow pace of natural selection. Cranes are expensive; they have to be designed and built from everyday parts already on hand; and they need to be erected on a firm base of existing ground. Once built, however, they are excellent lifters; they do their job in an honest, non-question-begging fashion; and they have the decided advantage of being real.

For more than a century sceptics have been trying to find a proof that Darwin's idea just cannot work, at least not all the way. Time and again they have come up with truly fascinating challenges; Leaps and gaps and other marvels that do seem, at first, to need skyhooks. But then along have come the cranes - discovered in many cases, by the very sceptics who were hoping to find a skyhook.
Sex

One extremely powerful crane, most evolutionary theorists agree, is sex. Species that reproduce sexually can move through the universe of possible, non-lethal designs - which might be called design space - much more rapidly than organisms that reproduce asexually. That cannot be the raison d'être of sex, however. Evolution cannot see far down the road; anything it builds must have an immediate payoff to counterbalance the cost. Some other, short-term benefit must have maintained the positive selection pressure required to make sexual reproduction an offer few species could refuse.

Another crane, one that was created to be a crane, is genetic engineering. Genetic engineers - people who engage in recombinant DNA tinkering - can now take huge leaps through design space, creating organisms that would never have evolved by "ordinary" means. That is no miracle - provided the genetic engineers themselves (and the artefacts they use in their trade) are wholly the products of earlier, slower evolutionary processes.

In "The Descent of Man" Darwin made it clear that the cranes of evolution reach all the way up to the throne of mind. That idea was too revolutionary for many people - and it remains so, even among some of evolution's best friends. Alfred Russel Wallace, whom Darwin acknowledged as co-discoverer of the principle of evolution, never quite got the point. When,
later in life, Wallace converted to spiritualism and exempted human consciousness altogether from the iron rule of evolution Darwin wrote to him: "I hope you have not murdered too completely your own and my child".

More recently the physicist Paul Davies of the University of Adelaide in Australia proclaimed in his book "The Mind of God" that the reflective power of human minds can be "no trivial detail, no minor by-product of mindless purposeless forces." That familiar denial betrays an ill-examined prejudice. Why, one might ask Davies, would its being a by-product of mindless, purposeless forces make it trivia? Why couldn't the most important thing of all be something that arose from unimportant things? Darwin's inversion suggests that varieties of excellence, worth and purpose can emerge, bubbling up out of "mindless purposeless forces"

People ache to believe that human beings are vastly different from all other species - and they are right. We are different. We are the only species that has access to an extra mode for preserving and communicating design: culture. (Other species have some capacity to transmit information "behaviourally" as well as genetically, but they have not developed culture to the takeoff point that our species has.) People have language, the primary medium of culture, and language has opened up new regions of design space
that only we are privy to. In a few short millennia - a mere instant in biological time - we have already launched our new exploration vehicles to transform not only the planet but the very process of design development that created us.

Crane-Making Cranes

Human culture is not just a crane made up of cranes; it is a crane-making crane, so powerful that its effects can swamp many (but not all) of the earlier genetic pressures and processes that created it and still coexist with it.

What kind of evolutionary revolution took place to set us apart so decisively from all other products of the genetic revolution? The explanation, I think, parallels the wonderful story told by the biologist Lynn Margulis of the University of Massachusetts at Amherst, about the revolution that paved the way for all complex life. Once upon a time, Margulis says, the only organisms on earth were cells without nuclei, the prokaryotes. They were simple, solitary forms of life, destined for nothing fancier than drifting around in an energy-rich soup and reproducing themselves. Then, one day, some prokaryotes were invaded by parasites. But the invaders turned out to be beneficial; they joined forces with their hosts, creating a revolutionary new kind of entity, a eukaryotic cell. That partnership opened up the vast space of possibilities known as multicellular life.
A few billion years passed. Then one fine day another invasion began. A single species of multicellular organism, a kind of primate, had developed a variety of structures and capacities that happened to make the organism particularly well suited for the invaders. In fact, the primate hosts had created the invaders as well, in much the way spiders create webs and birds create nests. In a twinkling - in less than 100,000 years - the invaders transformed the apes who were their unwitting hosts into something altogether new: witting hosts, who, thanks to their huge stock of new fangled invaders, could imagine the heretofore unimaginable, leaping through design space as nothing had ever done before. Following the evolutionary biologist Richard Dawkins of the University of Oxford, I call the invaders memes. The radically new kind of entity created when a particular kind of animal is properly furnished (or infested) with memes is what is commonly called a person.

Roughly speaking, memes are ideas - specifically, the kind of complex ideas that form themselves into distinct memorable units, such as:

arch; wheel; wearing clothes; vendetta; right triangle; alphabet; calendar; "The Odyssey"; calculus; chess; perspective drawing; evolution by natural selection; impressionism, "Greensleeves"; deconstructionism.
In Dawkins' conception, memes represent units of cultural transmission analogous to the genes of biological evolution. Like genes, memes are replicators, subject to much the same principles of evolution as genes are. Their fate is determined by whether copies and copies of copies of them persist and multiply, and that depends on the selective forces that act directly on the various physical vehicles that embody them. Some thinkers have proposed that there could be a science of meme evolution - memetics - strongly parallel to genetics. Others consider the proposal absurd.

Emotional Aversions

Some people hate the very idea of explaining human culture in evolutionary terms. I think they are making a big mistake. They want to believe that the human way of life is radically different from that of all other living things - and so it is. But they also want to understand that difference as the result of a miracle, a gift from God, a skyhook, not a crane. Why? Why should people flinch from carrying Darwin's idea through to its logical conclusion?

The answer, I think, is fear. They are afraid that the idea will not just explain but will explain away the minds and purposes and meanings that everyone holds dear; that the universal acid will pass through their most cherished monuments, dissolving them into an unrecognisable and unlovable puddle of scientistic destruction.
I can sympathise with such concerns. But the damage, if damage it is, is already done. Even if Darwin's idea came to be rejected by science - utterly discredited and replaced by some vastly more powerful (and currently unimaginable) vision - it would still have irremediably demolished everything that came before it. Simply by making design without mind conceivable, Darwin rendered Locke's argument, and the thinking behind it, as obsolete as the quill pen with which it was written. There can be no returning to pre-Darwinian innocence.

We used to sing a lot when I was a child, at school, at Sunday school, around the campfire at summer camp, or gathered around the piano at home. One of my favourite songs, simple but surprisingly beautiful, was

"Tell me Why":
Tell me why the stars do shine,
Tell me why the ivy twines,
Tell me why the sky's so blue,
Then I will tell you just why I love you.
Because God made the stars to shine,
Because God made the ivy twine,
Because God made the sky so blue.
Because God made you, that's why I love you.

That straightforward, sentimental declaration still brings a lump to my throat - so sweet, so innocent, so reassuring is its vision of life. But it is a vision
most of us have outgrown, however fondly we may recall it. The kindly
God who lovingly fashioned every one of us (all creatures great and small)
and sprinkled the sky with shining stars for our delight - that God is, like
Santa Claus, a myth of childhood, not anything a sane, undeluded adult
could literally believe in.

I too, cherish many of the ideas and ideals that Darwin seems to challenge,
and I want to protect them. I want to protect the campfire song, and what is
beautiful and true in it, for my little grandson and his friends, and for their
children. Many other, more magnificent ideas may also need protection.
But the only good way to do that - the only way that has a chance in the long
run - is to cut through the smoke screens and look at the idea as
unflinchingly, as dispassionately, as possible.

There is no future in a sacred myth. Why not? Because of our curiosity,
because being who we are, one of the things we deem precious is the truth.
Our love of truth is surely a central element in the meaning we find in our
lives. In any case, the idea that we might preserve meaning by kidding
ourselves is a more pessimistic, more nihilistic idea than one can stomach.
If that were the best that could be done, I would conclude that nothing
mattered after all.

Daniel (Dennett)
The Witness Self ... After Marx ... (1818-1883).

(W)riting the Witness Self looks at the observers role in the inquiry process ... and the anthropology of the Other in the making of culture; ‘he apprehended my white woman’s dance without fear, and revelled in the sexuality, was unafraid of my self...’

The Letter ... Dear Michael’, takes the inquiry process in another genre and asks ‘if we wish to understand human behaviour, does physiology furnish all we want so far as reliable knowledge is available?

The tricksters reply ... Dear Jaki, takes up the epistemological challenge with ... ‘and this brings me to the vexing subject of ‘constructionism’ making things up ... It is because at this point the critic fumbles the pass and the ‘literary turn’ in the social sciences and historical studies yields naught else but more meta commentary, in place of poesis, little of making new?

* Professor Michael Taussig, Professor of Anthropology, Columbia University, New York, NY
The Witness Self

After the dream I determined to put myself on hold. I would be for a time simply a red blipping light. I would watch life. I would watch and I would wait. For what would I wait.

The dream held a clue. In my dream I danced. Dressed in white cotton, with a white head shawl trimmed with a pink fringe. I danced down an aisle, naked from the waist down, towards the Aboriginal Chief to whom I was to be married and mated.

There was a gathering watching me. Amongst them, my previous lover, who watched in speechless anguish as I danced towards the Chief. My previous lover knew, and I knew, that no-one could restrain me in my dance towards the black man. The Chief. I was erotic, my dance was the dance of life. Blatantly sexual, and eager for insemination. The congregation watched, also speechless, though more with curiosity than the sadness of my former lover.

All the while, the Aboriginal man, the Aboriginal Chief, awaited, and waited for my arrival at the end of the aisle. He was unafraid. He was unflinching. His nostrils flared with passion, but nothing else without or within him moved. He apprehended my white woman's dance without fear, and revelled in the sexuality, was unafraid of my 'self'.

He accepted my giving. He acknowledged this
destiny of our union with equanimity, with passion.
His nostrils flared, in and out, in and out, as I came
closer.

At the end of the aisle, I sank down, my pelvis thrust
forward, my legs bent back beneath me, my vagina
splayed open in giving and in receiving. The Black
Chief came forward, bent down to his knees, raised
up my buttocks with his hands and pushed with
huge passion his hard phallus into my waiting
vagina. Then came his seed. Pumping. Pumping.
His gift to me. His seed. And a child. We knew that
impregnation was taking place. Reconciliation of
opposites was the ritual. The child was the child of
destiny, of healing, of life.

I awoke from the dream jubilant, free, clean and
nourished. I decided to put my outself on hold.
To move in the witness ‘self’. To watch. To wait.
For the seed to grow. The dream to grow. Could
I incubate this seed now sown within me? The
dreaming of the dream. The dream-time seed.

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in The Unquiet Heart and Other Misfits, 1990: 21
Dear Michael,

Anthropology defines itself as a discipline of infinite curiosity about human beings. This definition, which comes from the Greek ‘anthropos’ for man and ‘logos’ for study, is both accurate and inaccurate. It is accurate because anthropologists seek answers to an enormous variety of questions about human evolution and existence, with questions that range from ‘where and when did humans appear on earth’, to ‘how or why did two thousand or more recent societies develop such varying ways of life?’

However, defining anthropology as the study of human beings is also inaccurate, for according to this definition anthropology would appear to encompass a whole catalogue of disciplines: sociology, psychology, political science, economics, human biology and perhaps the human disciplines of philosophy and literature.

Needless to say, the many other disciplines concerned with human beings would not be happy to be regarded as sub-branches of anthropology. After all most of them have been separate disciplines longer than anthropology and each one considers its jurisdiction to be distinctive. What then is unique about anthropology that has allowed it to develop as a separate discipline for over one hundred years?
Anthropologists are generally envisioned as travelling to little known corners of the world to study exotic peoples, or digging into the earth to uncover fossil remains or tools and shards of people who lived long ago. It could be said that anthropologists have a broader field of study than other disciplines concerned with human evolution.

Anthropologists have not always been as broad and comprehensive in their concerns as they are today. Traditionally they have concentrated upon non-western cultures and left the study of western cultures and similarly complex societies, with their recorded histories, to other disciplines.

In recent years however, this general division of labour among the disciplines has begun to be contested. Now anthropologists can be found at work in the cities of the industrialised world as well as in the remote villages of the non-western world. Not only are anthropologists concerned with testing the accuracy of certain beliefs about human behaviour, they are also interested in exploring the accuracy of certain beliefs about human beings.

It seems clear to me that all research and all texts are about human being. As such, one approach or discipline cannot hope to capture everything. An interdisciplinary approach may then offer a more honest outcome for research projects. The issue of interdisciplinarity and the contestation of disciplinary boundaries have a longer tradition than is currently talked about. I will make my start in 1956, when the scientist C.P. Snow published *The Two Cultures*
(1963) in the New Statesman, based on his lectures at Cambridge University (U.K.). The thesis of this small monograph being that ‘literary intellectuals at one pole, at the other scientists … and between the two a gulf of mutual incomprehension … sometimes (particularly among the young) hostility and dislike, but most of all lack of understanding’ seems to me to remain pretty much the case today – nearly fifty years later. In doing my own research about human beings, I found C.P. Snow’s observations borne out, more often than not. From my own experience as a writer of fiction, and with no substantial scientific literacy, the source of my knowledge of the world came largely through literature and the values formation of a white western middle class Christian and patriarchal culture.

In fiction I found a ‘kind’ of knowledge, for example the French novelist Emile Zola’s novel *Germinal* drew attention to the misery prevailing among the poor in France. It depicts the terrible struggle between capital and labour in a coal field in northern France. This novel is now considered a sociological document. With its thick descriptions it straddles the disciplines of literature and ethnography. I found it a very disturbing and emotional reading. I learned from it about the human condition of people I could never have communicated with in any face-to-face way. The injustice and the suffering depicted in it broke my heart and inspired me, as many other works of art and literature have done, to ask ‘why is this so?’
Underpinning that question, and the question which set me off on a more systematic study of which this thesis is an outcome, was the question 'is homo sapiens inherently bad, the original sinner of the Christian tradition? And if bad, or mad or just ugly had Shakespeare had the last word on the matter in his grand narrative plays such as *King Lear*, *Hamlet* or *The Merchant of Venice*? Was there another way to inquire into these pressing questions that did not exclude or detract from the aesthetic and emotional insights offered by the literatures?'

And it was here that I turned to science. Not in the laboratory sort of science, but in the literature of scientific studies. I read my way through these disciplines: primatology, biology, physiology, palaeontology and physics. Added to this sociology, anthropology and history. Each discipline had either a different explanation or another piece of the jigsaw puzzle which I was trying to put together in response to my question, 'is homo sapiens bad, mad or just ugly?' And where did I fit in?

Here I was, right in the middle of C.P. Snow's *Two Cultures* and two things were becoming increasingly clear to me. 1), they were not two cultures, but two literacies about the one species and 2), the division of labour in the disciplines, mediated by the genres of fiction and non-fiction, could only give a partial knowledge on an aspect of the topic homo sapiens: the nature and the nurture.
Obviously the topic is huge. I just didn’t have the scientific education from which to speak and I wanted to keep both genres, fiction and non-fiction in dialogue. So, I have written letters about the topic, ‘homo sapiens, bad mad or ugly’ and tried to make up my own mind, or at least give some explanation to myself that I can share with you in a way that is my own voice. A voice that doesn’t pretend to authority, nor privileges one discipline or genre over another.

For my part, the issue of ‘reliable knowledge’ is a political question and relies a great deal on an interpretation, a great deal more than just the facts. At the time of this writing I have accepted that knowledge(s) are always contingent and to some degree even science is a ‘once upon a time’ quest story. But, for a work in progress explanatory position I find After Darwin, Freud, Marx and Einstein as good as any for an analysis, or a critique, about the human condition. With an admix of fiction, music, painting and any other genre a more robust picture emerges ‘about us’. Your opening quote from Kafka makes the point very well. I think the role of physiology and how the central nervous system and the brain contributes to our culture making is underestimated. I would go so far as to suggest this be put on every discipline’s curriculum, but that’s another letter.

Jaki
Dear Jaki,

A Report to the Academy

To put it plainly, much as I like expressing myself in images, to put it plainly: your life as apes, gentlemen, insofar as something of that kind lies behind you, cannot be farther removed from you than mine is from me. Yet everyone on earth feels a tickling at the heels; the small chimpanzee and the great Achilles alike.

- Franz Kafka, "A Report to an Academy"

So what is this tickling at the heels to which Kafka's all too human ape would refer us all too apish humans to? I call it the mimetic faculty, the nature that culture uses to create second nature, the faculty to copy, imitate, make models, explore difference, yield into and become Other. The wonder of mimesis lies in the copy drawing of the character and power of the original, to the point whereby the representation may even assume that character and that power. In an older language, this is "sympathetic magic," and I believe it is as necessary to the very process of knowing as it is to the construction and subsequent naturalisation of identities. But if it is a
faculty, it is also a history, and just as histories enter into the functioning of
the mimetic faculty, so the mimetic faculty enters into those histories. No
understanding of mimesis is worthwhile if it lacks the mobility to traverse
this two-way street, especially pertinent to which is Euro-American
colonialism, the felt relation of the civilising process to savagery to aping.

My way of traversing this two-way street takes me into an eccentric history
which begins with the curious and striking recharging of the mimetic faculty
caused by the invention of mimetically capacious machines such as the
cameras, in the second half of the nineteenth century. This history then
somersaults backward in time so as to explore a foundational moment in the
equation of savagery with mimesis - namely, the experience of young
Charles Darwin, in 1832 on the beach at Tierra Del Fuego, full of wonder at
the mimetic prowess of primitives, especially as it concerns their mimicking
him. This history then fans forwards in the form of other sailors setting sail
from northern climes, as they appear carved in the shape of wooden curing
figurines in the early twentieth-century Swedish ethnography of certain
Indians of the Darien Peninsula between the Panama Canal and Colombia.
Wondering about the magical possibilities in this image-making of
Europeans makes me in turn speculate first about what it might be to live
Darien-like in mimetic worlds where spirits copy physical reality, and
second, what it means for me as a white man to trace a history in which an
image of the white man is used by Indian men to access magical power
seems to me, not enough surprise has been expressed as to how we
nevertheless get on with living, pretending - thanks to the mimetic faculty -
that we live facts, not fictions. Custom that obscures crossroads where the
constructed and the habitual coalesce, is indeed mysterious. Some force
impels us to keep the how on the road. We cannot, so it would seem, easily
slow the thing down, stop and inquire into this tremendously braced field of
the artificial. When it was enthusiastically pointed out within memory of
our present Academy that race or gender or nation ... were so many social
constructions, inventions, and representations, a window was opened, an
invitation to begin the critical project of analysis and cultural reconstruction
was offered. And one still feels its power even though what was nothing
more than an invitation, a preamble to investigation has, by and large, been
converted instead into a conclusion - eg. "Sex is a social construction," "race
is a social construction," "the nation is an invention," and so forth, the
tradition of invention. The brilliance of the pronouncement was blinding.
Nobody was asking what's the next step? What do we do with this old
insight? If life is constructed, how come it appears so immutable? How
come culture appears so natural? If things coarse and subtle are constructed,
then surely they can be reconstructed as well? To adopt Hegel, the
beginnings of knowledge were made to pass for actual knowing.

. . .

I think construction deserves more respect; it cannot be name-called out of
(or into) existence, ridiculed and shamed into yielding up its powers. And if
its very nature seems to prevent us - for are we not also socially constructed?
- from peering deeply therein, that very same nature also cries out for
something other than analysis as this is usually practiced in reports to our
Academy. For in construction's place - what? No more invention, or more
invention? And if the latter, as is assuredly the case, why don't we start
inventing? Is it because at this point the critic fumbles the pass and the
"literary turn" in the social sciences and historical studies yields naught else
but more meta-commentary in place of poesis, little by way of making
aneu?

But just as we might garner courage to reinvent a new world and live new
fictions - what a sociology that would be! - so a devouring force comes at us
from another direction, seducing us by playing on our yearning for the true
real. Would that it would, would that it could, come clean, this true real. I
so badly want that wink of recognition, that complicity with the nature of
nature. But the more I want it, the more I realise it's not for me. Nor for you
either … which leaves us in this silly and often desperate place wanting the
impossible so badly that while we believe it's our rightful destiny and so act
as accomplices of the real, we also know in our heart of hearts that the way
we picture and talk is bound to a dense set of representational gimmicks
which, to coin a phrase, have but an arbitrary relation to the slippery referent
easing its way out of graspable sight.
Now the strange thing about this silly if not desperate place between the real and the really made-up is that it appears to be where most of us spend most of our time as epistemically correct, socially created, and occasionally creative beings. We dissimulate. We act and have to act as if mischief were not afoot in the kingdom of the real and that all around the ground lay firm. That is what the public secret, the facticity of the social fact, being a social being, is all about. No matter how sophisticated we may be as to the constructed and arbitrary character of our practices, including our practices of representation, our practice of practices is one of actively forgetting such mischief each time we open our mouths to ask for something or to make a statement. Try to imagine what would happen if we didn't in daily practice thus conspire to actively forget what Saussure called "the arbitrariness of the sign"? Or try the opposite experiment. Try to imagine living in a world whose signs were indeed 'natural'.

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Something nauseating looms here, and we are advised to beat a retreat to the unmentionable world of active forgetting where, pressed into mighty service by society, the mimetic faculty carries out its honest labour suturing nature to artifice and bringing sensuousness to sense by means of what was once called sympathetic magic, granting the copy the character and power of the original, the representation the power of the represented.

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Yet this mimetic faculty itself is not without its own histories and own ways of being thought about. Surely Kafka's tickling at the heels, brought to our attention by the ape aping humanity's aping, is sensateness caught in the net of passionful images spun for several centuries by the colonial trade with wildness that ensures civilisation its savagery? To witness mimesis, to marvel at its wonder or fume at its duplicity, is to sentiently invoke just that history and register its profound influence on everyday practices of representation. Thus the history of mimesis flows into the mimesis of history, Kafka's ape standing at the turbulence where these forces coalesce. And if I am correct in invoking a certain magic of the signifier and what Walter Benjamin took the mimetic faculty to be - name the compulsion to become the Other - and if, thanks to new social conditions and new techniques of reproduction (such as cinema and mass production of imagery), modernity has ushered in veritable rebirth, a recharging and retooling the mimetic faculty, then it seems to me that we are forthwith invited if not forced into the inner sanctum of mimetic mysteries where, in imitating, we will find distance from the imitated and hence gain some release from the suffocating hold of "constructionism" no less than the dreadfully passive view of nature it upholds.

Michael (Taussig)
Intertext #4

(W)riting Madness ... After Freud ... (1856-1939).

The prose piece (W)riting madness looks at the notion of madness in literature and in daily life ... 'another bout of silence arrived and departed, and our holiday was becoming anything but a delight, and the unnameable atmosphere still invaded the cabin, in ever more oppressive dimensions'...

The letter, Dear Paul*, interrogates how the neuro-technology of medical discourse is changing the way we view ourselves and pathologies, making a case for nature and nurture and debunking the pseudo-philosophical Gordian Knot of a brain/body split ... 'no longer is dementia construed as romantic, no longer is it possible either to construe genius as a concomitant of dementia, and it is also now possible to diagnose difference without accusing the family of bad parenting'.

The trickster's reply ... Dear Jaki ... takes up the Freudian discourse and deconstructs its epistemological propositions in the light of these new technologies and their social consequences in terms of how pathologies can now be treated with medical interventions that the 'talking cure' could not effect ... 'to a remarkable degree, Freud's ideas, conjectures, pronouncements have seeped well beyond the circle of his professional followers into the public mind and discourse'...

* Paul Gray, Feature Writer, Time Magazine, 1993
February 28th

I was numb as I pulled into the service station late afternoon that Friday. Numb in that special way that the heart, that the spirit, that the inner self has of being closed down,

In short, my heart did not sing. Had not sung for many ... days, weeks, months ... years. Instead, it had frozen over, with a winter of its own.

The mountain sun was just about to slip off the edge of my horizon, and a dusk light hovered alongside a grey sharp wind. A premonition of autumn. A ghastly time of year.

My senses twitched to the note of cold, and construed the coming of the elements of winter. Up here, this cognition of the elements is no easy matter - the long days and nights of snow and mist and grey and grey.

Included in my numbness was my transition. My life, that is, was in transition. It was to be the cure for my numbness.

My life was in fragments. Digital. The shift was to analog. Analog or bust, was my new motto. Digital and numb had to go. Hence transition.
One of the fragments, one of those bits of decomposing messages that came and went at odd hours during the years, had been (day at Christmas time, New Year, Thanksgiving, event-times) "I wonder what happened to ..." and then the names would sort of flip up on the read-out screen of my memory.

There was Peter One and Peter Two, there was Zoe and Annie, there was ... and so on. Just the idle wondering at the passing of my time, my world-time: and inevitably up would come - "I wonder what happened to the Hamiltons?"

As with all the names, the mind's eye did not linger, maybe Peter One and Peter Two received a moment longer, a kind of hesitancy in moving on, but really a shrug of "Oh well" put paid to most of them, and the road, or book, or phone ringing took over, and they were banished.

These bits of frozen time hung like stalactites in the depths of one's memory, and were only revealed by strange associations, funny buttons pushed by some invisible and very fickle mechanism (usually turmoil or crisis) deep within one's neural circuits; when from time to time a kind of loss of earth fuzzed the channels and chaos was unleashed temporarily upon the archives of one's memory banks.
On other occasions, synchronicity took a hand, and one was confronted, as I was at the petrol station, by the real thing - in this case, a Hamilton.

The figure of Elliott Hamilton was diffused and shadowy by memory and by time. It had been ten years or more; and somewhat like an old photograph, the details had become blurred and the features softened. Hence my hesitation, and my reluctance to move forward quickly in response to the recognition. Added to all that, I was, White Rabbit-like, late for a very important...

At last, necessity propelled me forward into the garage cash-counter, my memory flicking like the tongue of a blue-tongue lizard, all the way to the door, and there, still not really sure, I voiced the question and the hello in one statement "Elliott Hamilton?"

The man turned in response to ... my voice? In response to the name? As I stepped through the door, his face still momentarily in consideration, and then the smile of recognition, and those huge arms around me, and lifting me up off the ground with a "God, it has been a long time."

And it was here that another dimension was added to my life. The domain of the invisible, the unseen the un-rational.
All contained in that haggard halcyon hug, that unleashed the invisible, the un-seen, the un-rational, that chaos that underwrites all of living. Especially human being.

The days between February 28th and March 14th were filled with the myriad tasks of moving house. Of transition and change.

Elliott Hamilton called by once, and that, I had thought, had said, was that. "Friends yes - lovers no." Married men were definitely a double-edged sword. And blades upon which I had been only too recently wounded.

There was no sanity in that kind of love. No sanity at all in its deceit, in its secrecy, in its peaking quality, its Oedipal quality, its triangular distortions.

How little one really knows another. So much that is invisible. As much as for myself that the matter appeared closed, the matter was taking root in Elliott Hamilton.

A taproot had been struck, deep within the guarded recesses of being, and there, nurtured and nourished by imagination, an alchemal mixing took place that shattered the boundaries of consciousness.
March 14th

Saturday. The day was warm, warm in the new geography, the new landscape was soft and sweet on the eyes. All in all, the antithesis of the climate and landscape left behind in the Mountains. The Mountains already bleak with cold, so bleak that even the autumn colour could hardly disguise what was to come.

The house-moving was in full swing; although hampered by lack of resources, such as money, an abiding feature of my 'old' life, and one that my new life was designed to change.

Nonetheless, all my goods and chattels had to be moved, on top of or inside my ailing Renault, including the double bed. The heavier things I left. As I left most of the things that had become synonymous with a past that I was shedding like an old skin.

As the move took place - my heart stirred a little within its numbness. Just a flutter, not unlike the first movements felt by an expectant mother. Somewhat diffuse and barely discernible from the other fluctuations within the nervous system.

Two friends joined me to help in the move; scrubbing, sweeping, unpacking, we laughed and talked our way through the chores.
I enjoyed their company, and was thankful for their loving support of my Phoenix-like emergence from a death-like past, their company easing the base-load of anxiety that accompanies change.

Soon the dirt and mess of the previous inhabitant was lifted, and the kitchen, bathroom and a bedroom emerged chiaroscuro-like from the patina of dirt. The traces of which mingled now with our sweat and the heat of the day and the tiredness of our bones.

At last the immediate task was completed. Order had been brought to bear on chaos. At least in the female sense of rest and hearth and small matter of things.

It was the recurrent, the historical illusion, the magical trick of wrestling from neglect and dirt the notion of clean and tidy. And it was to this domain that women had been relegated.

We three were witches on broom-sticks, rounding-up 'reality' from its sloppy, formless and chaos-bound plasticity, and hounding it into form, into clean use-full priorities.

Poor in economics we were, but in our hearts, in our imaginations, in our capacities, we were infinitely wealthy in our creation of meaning, and order.
The long afternoon shadows had begun to spread out from beneath the huge Morton Bay fig tree in the front garden, and the laughter and talk that had threaded through the day had given way to a tired silence by the time the initial move was complete, and we were free to head to the bar for a cold beer.

Feeling light-hearted and more like children with an early mark than grown women, we left the loose ends of the chores where they lay, eternal as life itself, and stepped out of the cottage door into the sun-sinking golden evening.

One friend took her leave, time and motherhood requiring her presence elsewhere, leaving two of us to walk on, with much eagerness, towards the bar.

It was across this end-of-day silence, this quietness of friendship and tiredness of sun-setting softness, that Elliott Hamilton erupted.

In my mind's eye, I can re-produce a series of extraordinary photographs of the events as they occurred. Like a series of stills, frame by frozen frame.

Introductions are made. The walk towards the bar, and the invisible, the unseen and chaos continues arm-in-arm.

Oh, the alchemy of the invisible, of the unquiet heart, the unbidden issue of love.

It seemed so utterly simple. An act of such inevitability, that all else paled for a time into insignificance.

March 15

Sunday. My 'new' life begun. And with it, a 'new' man. I chuckled as I looked into the eyes of Elliott Hamilton watching my face. Chuckled at the thought that I could, would no longer wonder what happened to the Hamilton's.

March 16th

Monday. After breakfast, Elliott left for his business trip to Los Angeles. The flight would take ten days.

Suddenly I was alone.

I was alone. I was also not alone. My house-move, life-move and thawing numb heart were all now transferred from one geography to another.
And much more. It felt strange. Strange and empty, rather than full and easy. In its thawing my heart was becoming unquiet. I perceived that the process of a life deconstruction was not to be a simple matter of geography.

March 17th

In defiance, I embraced the new landscape. I began to create. The creation of a new person, I wove the landscape from my own silken thread. I wove myself and the landscape into one act of living.

The days passed. The household took on my new identity. I took on a new identity. I awaited Elliott's return. I hardly knew that I was waiting. It is only in hindsight that I recognise the waiting, so rarely did his name or physiognomy cross my thoughts. Yet somewhere, the un-visible operated and created within me the 'knowledge' of his person. The dialogue of silence cut through the geographical and psychological, emotional boundaries.

The few days passed as though in a dream. The days were filled with painting and scrubbing and cleaning, interspersed with conversations. My life had become a conversation, a perpetual dialogue in a framework of community. An educational community. Campus life.
March 27th

Elliott's return from Los Angeles punctuated my freewheeling life. Falling in love had never been part of the deal.

The absurdity of it. And yet, in spite of itself my heart sang at the sight of his big, lumbering figure, treading heavy with tiredness down the corridor.

We were an anomaly as a couple. A pair of misfits, hoping that we might, as a pair, get a better 'fit'. We were also Autumn and Winter, trying to live in spring. Everything about each of us was at odds. With the assistance of chemically induced rose-coloured glasses, each of us did that age-old cosmic trick of conjuring up the 'ideal other' - in short, mum for him and dad for me. Opposites became apposites.

Each of us became for the other a cuckoo in the other's nest.

Elliott was climbing off the corporate ladder. I was climbing on the career tree.

Well lubricated with wine and endorphin's, all the rough edges became seams. As the gears changed they broke their teeth; our poor meshing became challenges
Orchids from Singapore arrived, a huge box of them. Dinners, movies, books and music filled the days and nights in one splurge of romance.

We talked, walked, made love, laughed, played and cried through the next twelve weeks, as though our respective forty and sixty years had just been an interlude, while we waited to be re-united with each other.

Life was full. Life was exciting and romantic and adventurous. All our dreams had come true. We had beaten the odds. Dreams and fairy-tales did come true. We could live 'happily ever after'. Triumphant love.

We had seemingly unlimited time and money. Elliott was a wealthy man. He had few commitments and they were quickly shed, along with thirty years of marriage, three grown-up children and his property. Elliott shed them just like an old skin. And seemingly just as effortlessly.

In short, he slipped out of his old life so quickly and urgently that within weeks it was as though it had never existed.

Of course, the reverberation of such an accelerated shift in the world beyond our immediate life was catastrophic. All of which hardly touched Elliott, or for that matter, myself.
I believed in a radical life. I loved to shake the shibboleths of so-called 'nice' society; the role of scarlet woman came easily, although it was misnamed and ill founded. I had long been tired of the absurd hypocrisies of 'class' and 'etiquette' that hid behind the worm-ridden lives of the so-called elite.

I had little pity for the sham that prevailed, and oppressed ordinary people. And still less for the pretensions of status, acquired at the price of personal authenticity.

I loved Elliott's courage in shifting from a life of appearances to a life of authenticity. He was the knight in shining armour.

I was his Beatrice. I wanted to believe that myths come true.

April and May and June

The days and nights were a narcotic dose of life. A rosy blur. Love. Being in love. Tore up the pages of history and rewrote them. Blissful.

June 30th

Elliott retired from corporate life. To celebrate, we spent the day in New Zealand on his last business trip. It seemed so right to spend the end and the beginning together. There was a sense of
completeness in the day, a Gestalt if you like, as we set off, our hearts and sights set on putting the past to rest, and the creation of a future, a new life.

Sixteen weeks had passed since our meeting outside the petrol station. The autumn had arrived, brazen and absurdly flamboyant; had danced like a band of flamenco gipsies, leaving an unruly mess as winter arrived, appearing sombrely one precise day, unleashing torrents of rain and a tyranny of flood, that seemed to be a judgment of heaven on our truanting joy.

We went north. Elliott loaded up the car with every conceivable portable luxury and gadget for comfort. We had ten days ahead of us, and not a worry in the world. And we had each other.

July 14th

The road was easy and our journey led us out through the countryside, cris-crossing the main highway. We stopped for lunch at old pubs along the way, or made picnics off the roadside. Two days into our journey, Elliott developed a cold. Elliott became withdrawn. An atmosphere began to permeate the drive. Elliott seemed to slip away. Became moody, inaccessible.
July 17th

Elliott's cold became the dictator of our holiday. The strange atmosphere that permeated the journey had a kind of time sequence and seemingly a life of its own. Promptly between 5pm and 7pm each evening, as we drove toward our destination (hotel/restaurant), the unnameable atmosphere would become slowly and irrevocably omnipotent.

Surreptitiously it would filter into the cabin of the car, hardly perceptible at first, even un noticed, camouflaged by somewhat ponderous and impenetrable silence that Elliott withdrew into as the day drew to an end; a mood I attributed to the heightening of his cold symptoms, a common enough escalation of symptoms, often found to correspond with early morning or early evening.

Elliott's silence filled my heart with softness. I attributed it to the silence of suffering. Of feeling unwell. Of that child-like quality that people show, especially in that particularly male tradition of not complaining, of not showing weakness or vulnerability.

I wasn't particularly impressed by this attitude, though I was so in love that anything Elliott did was endearing, and accepted.
July 19th

At first, I tried to reach Elliott, to find a way of empathising, a way to bridge the silence between us. Elliott responded by withdrawing further into a stony and impenetrable silence.

Elliott suddenly became a stranger, and I became increasingly uncertain of how to respond to him, or how to communicate. After a further two evenings of it, with the silence beginning earlier and lasting longer, I decided on a plan of just letting things 'be', and putting it all down to what had become the 'flu'.

Another bout of silence arrived and departed, and our holiday was becoming anything but a delight, and the unnameable atmosphere still invaded the cabin, in ever more oppressive dimensions.

Finally I couldn't take it any more and I decided to speak. Nervously, like an intimidated child, I brought this unnameable thing to Elliott's attention.

Elliott simply shrugged, and then, in a voice that was hard and cold, began to criticise my driving, calling attention to my every misdemeanour, and snapping directions at me as though I was not only a stranger, but a stranger hired to do the driving. His attitude and tone were filled with a kind of malevolence, with a vindictiveness.
I was utterly intimidated by Elliott's unpredictable response. I felt sick at heart. Elliott didn't let up until we had stopped for the night at a motel, which he insisted must have a deep bath.

Finding the place with the bath stretched my nerves to their limit, and it had become apparent that the source of the atmosphere that now held us in ominous gloom defied reason for its explanation.

Finally a bath in a motel was found, and Elliott duly ensconced in it, whisky glass in hand, door closed; while I sank onto the foot of the nearest bed, and drowned my shattered nerves in several large gulps of whisky, utterly bewildered.

An hour and a few whiskies later, Elliott emerged from the bathroom smiling, though sniffily. "That's better, he said, planting a kiss on my forehead. "Are you going to have a quick shower, darling, before we go downstairs to eat?"

It was as though nothing had happened. It was as though I had invented, imagined the whole afternoon. As though I had invented even the unnameable atmosphere, so far was it from Elliott's behaviour right then.

There was nothing of it. Not in his face, nor in his eyes, not in the tone of his voice, nor in the tenderness of his kiss.
Nothing at all to even intimate the depth or the quality of the vindictiveness in the car.

Neither was there a sign of the malevolence. Instead was the Elliott of charm and warmth, the softly spoken and calm man whom I love so dearly. A perfect gentleman to boot. I shuddered with relief, and comforted myself with the knowledge that the 'flu and high temperatures can do the craziest things to people.

Dinner was a delightfully posh affair, the restaurant was a cosy, sweet place to be together. A fire was burning softly, and our table looked out into a courtyard upon which was falling a soft drizzle. All was well with us, and with the world. We slept like logs, curled up around one another, more like kittens than people.

July 20th

Our destination was Brisbane. Elliott had business interests there. We awoke the next day with delight for each other in our eyes and hearts; and Elliott's 'flu symptoms much diminished.

We set off after breakfast through the working-day countryside, high in spirits and with Brisbane only that day's drive away.
Elliott was chatty and interested in the sights. We were both utterly happy and quite besotted with each other. And the sun had broken through the clouds and the rain was moving away.

July 20th to July 27th

The days were light and easy and a bit weird. Always an undercurrent of weirdness ran through the days a bit like a barely perceptible breeze through leaves. An indecipherable rustle that I have named weirdness. As elusive as the breeze it was, too.

’It’ trailed and haunted us. ’It’ dogged our every step. Silently scuttlebutts our every laugh, our every tenderness, shadowed our every word and deed. I could never locate the ’stuff’ of it. Track as I might the scent of it, never did the trail arrive at its source. Ghastly and grizzly was its effect on the senses. For a time I put it down to drink. Any name for peace.

We headed home, trailed by this weirdness, by this shadow. Trailed, and engulfed in weirdness. Home, I thought as I drove. Home, and there, amongst the known, the familiar, the ordinary, we will shed this this nameless thing.

The drive was tiresome. All the sense of holiday and adventure entailed in leaving home now gave way to the yearning to be done with the journeying.
Elliott was quiet, pale, withdrawn, seeming sullen. Seeming lost. The ambience within the car was dense and intractable.

The car broke down two blocks from home. A 1,000 kilometre round trip, it stops two blocks from home. I trembled between disgust and relief. Elliott simply and literally growled.

July 27th

We left the car at the nearby garage, and bundled our baggage into a cab. 'Home', I thought, 'Bliss', I thought, 'No more weirdness', I thought. Elliott glowered.

July 28th to August 4th

For the next week, Elliott and I settled into living together. Becoming a couple. The weirdness vanished, only to re-emerge, when least expected. Nevertheless, it was business as usual. The house was a constant flux and flow of events and people. Wine, conversation and song.

For Elliott, it was a new world, and for me, it was my world.

The weirding thing would come in small gusts, then die off to an ambient breeze. Then surge up. Nameless, grizzly, grotesque.
"It's the booze. Too much booze", I emphatically decided at the end of my tether, at the end of another screwy day, trying to follow Elliott's conversations on Egyptology.

Which ended, as did all such discussions with Elliott on a sudden slamming of doors, and an empty bed, and a sleepless night.

August 14th to August 21st

Elliott had set up a separate study in the household, in defiance of my criticism of his research methods and his intellectual experience (hubris).

He had been living in there for a week, coming out only for food or booze. He had not shaved in all that time, neither had he had a haircut for, by then, over two months. He looked wild.

Once he came to my bed, crying like a child, in the small hours of the morning. Leaving again soon after. During the day, music would be heard coming very loudly from his room, and Elliott would be found lying on his bed, silent tears running down his face.

I learned not to question him, as he quickly denied his tears, or became enraged by my 'misguided' concern.

He began to talk a strange and florid 'language' all syntax, no semantics.
He began to write pages and pages of cryptic code, anything up to sixty pages at a time. Day after day.

One day I suggested that maybe he drank too much, and that so did I, and that all the communication and tenderness between us was being corrupted by booze. That everything was being distorted, contorted and perverted between us. Elliott kept writing.

And then Elliott stopped writing, turned his attention from his writing, turned slowly, deliberately (he was a big man), stood up, grabbed his glass from his desk and smashed it to the floor.

Then he just as deliberately (his face ashen) grabbed me by my clothing, grabbed and scrunched it and me at the neck, and for a long moment stared into my face and eyes before he spat. "You stupid bitch", he sneered. "You stupid bitch." Not seeing me.

And there in his eyes and in his body, there in the instant before the spittle covered my face, I saw it. I saw it, the source of the weirdness. Saw the full grotesque and grizzly 'home' of it. Saw the shadow of Elliott grimacing with crazy malicious glee.

Elliott was mad!

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in The Unquiet heart and Other Misfits, 1990:93-112
Dear Paul

New technologies that enable scientists and biologists to enter what was once thought of as the ‘black box’ of the brain and nervous system while the patient is alive and awake have put psychology and education on the back foot in terms of explanations for the pathologies of schizophrenia, psychosis and learning difficulties. No longer can these pathologies be considered anything other than diseases of the brain and/or central nervous system and a product of genetic and developmental malfunctions. No longer can dementia be construed as romantic and no longer can notions such as genius or creativity be conflated as one and the same thing. Far from being the ‘price’ of creativity, psychosis and other forms of mental illness can actually be seen as hindrances to creativity.

An organic, or natural history, of ‘the mind’ offers an opportunity for socialisation and a pedagogical practice that recognises that memory, learning and reasoning are located in our species-specific evolutionary development in conjunction with a familial and cultural environments that either enables or distorts the child’s ability to grow into an adult free of anti-social behaviours.

I am not trying to oversimplify the issues here. Neither am I trying to make technologies or science the privileged speakers on these matters. On the contrary, too little attention is paid to them in other disciplines, where the romantic or religious take can still hold sway in the discourses on madness.
Shakespeare’s *Hamlet* will still be trotted out along with Freud as if the matter of physiology was of little or no consequence, let alone on the agenda.

In 1995 Robert Sylwester observed that ‘recent dramatic development in the cognitive sciences are moving us closer to an understanding of our brains’ organisation and development. Increased understanding of the brain should lead to widespread discussions of the important issues that will arise out of these advances and to the development of appropriate and effective educational applications for this knowledge … without this knowledge, our profession will become prey for educational tricksters who will propose expensive programs they claim to be compatible with current cognitive theory and research.’

Professor Sylwester is not referring to the ‘trickster’ of this thesis, but the undigested theorising around ‘left’ and ‘right brain’, ‘lateralisation’ and the ‘quantum brain’, just to point to the kind of ideas that float around as panaceas in the corporate training sector, for instance.

What I am suggesting here is that physiology and biology need to be incorporated into the curricula of the teaching professions as a necessary adjunct to the developmental projects so that a fuller picture of how we learn, remember, feel and reason is available at an earlier time and less remedially oriented interventions can take place when difficulties arise in the learning environment.
Understanding that anti-social behaviour may be caused by brain malfunction rather than by social factors alone, offers an alternative to Freud. For myself this neuro-physiological approach provides a less superstitious and theological account of human motivation than Freud's use of the metaphors of 'id' 'ego' and 'super ego'.

I have enjoyed reading your work on the value or not of Freud's works. Although he began his work as a neuro-psychologist with a biological theory of 'mind', I think his 'decentering' of the human subject did a lot of violence, to women especially. Anyway, your review of the demise of the Freudian tropes is well worth the reading, even if his work remains as literature only. I know that you are often deemed a 'pugnacious, populist' but I have found the clarity of your discussion of Freud's position very astute and fair handed.

Jaki
Dear Jaki,

Many are the ways of coping with the world's vicissitudes. Some people fear and propitiate evil spirits. Others order their schedules according to the display of the planets across the zodiac. There are those who assume that they carry, somewhere inside of them, a thing called the unconscious. It is mostly invisible, although it can furtively be glimpsed in dreams and heard in slips of the tongue. But the unconscious is not a passive stowaway on the voyage of life, it has the power to make its hosts feel very sad or behave in strange, self-destructive ways. When that happens, one recourse is to go to the office of a specially trained healer, lie down on a couch and start talking.

The first two beliefs can, except by those who hold them, easily be dismissed as superstitions. The third - a tenet of the classic theory of psychoanalysis devised by Sigmund Freud - has become this troubled century's dominant model for thinking and talking about human behaviour. To a remarkable degree, Freud's ideas, conjectures, pronouncements have seeped well beyond the circle of his professional followers into the public mind and discourse. People who have never read a word of his work (a
voluminous 24 volumes in the standard English translation) nonetheless

"know" of things that can be traced, sometimes circuitously, back to Freud:
penis envy; castration anxiety; phallic symbols; the ego, id and superego;
repressed memories; Oedipal itches; sexual sublimation. This rich panoply
of metaphors for the mental life has become, across wide swaths of the
globe, something very close to common knowledge.

But what if Freud was wrong?

This question has been around ever since the publication of Freud's first
overtly psychoanalytical papers in the late 1890's. Today it is being asked
with unprecedented urgency, thanks to a coincidence of developments that
raise doubts not only about Freud's methods, discoveries and proofs and the
vast array of therapies derived from them, but also about the lasting
importance of Freud's descriptions of the mind. The collapse of Marxism,
the other grand unified theory that shaped and rattled the 20th century, is
unleashing monsters. What inner horrors or fresh dreams might arise should
the complex Freudian monument topple as well?

That may not happen, and it assuredly will not happen all at once. But new
forces are undermining the Freudian foundations. Among them: The
problematical proliferation, particularly in the U.S. of accusations of sexual abuse, satanic rituals, infant human sacrifices and the like from people, many of them guided by therapists, who suddenly remember what they allegedly years or decades ago repressed. Although Freud almost certainly would have regarded most of these charges with withering scepticism, his theory of repression and the unconscious is being used - most Freidians would say misused - to assert their authenticity.

The continuing success of drugs in the treatment or alleviation of mental disorders ranging from depression to schizophrenia. Roughly 10 million Americans, for example, are taking such medications. To his credit, Freud foresaw this development. In 1938, a year before his death, he wrote, "The future may teach us to exercise a direct influence, by means of particular chemical substances." Still, the recognition that some neuroses and psychoses respond favourably to drugs chips away at the domain originally claimed for psychoanalytic treatment.

In the U.S. the Clinton health-care reform proposals, oddly enough, they are prompting cost-benefit analyses across the whole spectrum of American medicine, including treatments for mental illness. Whatever package finally winds its way through Congress, many experts concede that insurance will not be provided for Freud's talking cure. (A 50-minute hour of
psychoanalysis in America costs an average of $125.) Says Dr. Frederick K. Goodwin, Director of the National Institute of Mental Health: “It's clear that classical psychoanalysis, which is four to five times a week for a four to five-year duration, will not be covered. It won't be covered because there is no real evidence that it works,” Goodwin, for the record, professes himself an admirer of Freud the theoretician.

A spate of new books attacking Freud and his brainchild psychoanalysis for a generous array of errors, duplicities, fudged evidence and scientific howlers.

This last phenomenon is an intensification of an ongoing story. While Freud was winning cadres of acolytes and legions of notional recruits, he and his ideas regularly attracted sharp attacks, often from influential quarters. As early as 1909, philosopher William James observed in a letter that Freud ‘made on me personally the impression of a man obsessed with fixed ideas.' Vladimir Nabokov, whose novels trace the untrammelled and unpredictable play of individual imaginations, regularly tossed barbs at 'the witch doctor Freud' and 'the Viennese quack'. For similar reasons, Ludwig Wittgenstein objected to the pigeon-holing effects of psychoanalytic categories, even though he paid Freud a backhanded compliment in the process: 'Freud's fanciful pseudo explanations (precisely because they are so brilliant)
perform a disservice. Now any ass has these pictures to use in 'explaining' symptoms of illness.'

The steady rain of anti-Freud arguments did little to discourage the parade of his theories or to dampen the zeal of his followers. In fact, Freud erected an apparently invulnerable umbrella against criticisms of psychoanalytical principles. He characterized such disagreements, from patients or anyone else, as 'resistance' and then asserted that instances of such resistance amounted to 'actual evidence in favour of the correctness' of his assertions. For a long time, this psychoanalytic Catch 22 worked wonders; those who opposed the methods put forth to heal them and others could be banished, perhaps with a friendly handshake and a knowing smile, as nuts.

That illogical defence has largely crumbled. The recent discovery of documents relating to Freud and his circle, plus the measured release of others by the Freud estate, has provided a steadily expanding body of evidence about the man and his works. Some of the initial reassessments are unsettling.

For one example, the 10-year collaboration between Freud and Carl Gustav Jung broke off abruptly in 1914, with profound consequences for the
discipline they helped create. There would henceforth be Freudians and Jungians, connected chiefly by mutual animosities. Why did a warm, fruitful cooperation end in an icy schism? In 'A Most Dangerous Method' (Knopf), John Kerr, a clinical psychologist who has seen new diaries, letters and journals, argues that the growing philosophical disputes between Freud and Jung were exacerbated by a cat-and-mouse game of sexual suspicion and blackmail. Freud believed an ex-patient of Jung's named Sabina Spielrein had also been Jung's mistress; Jung in turn surmised that Freud had become involved with his sister-in-law, Minna Bernays. Both antagonists in this stand-off held bombshells that could blow each other's reputation from Vienna to Zurich and back; both backed off, divided up the spoils of their joint investigations and retreated into opposing tents of theory.

Was this any way to found an objective science? Freud's defenders argue that his personal life is irrelevant to his contributions to learning - a rather odd contention, given Freud's statement that his development of the analytic method began with his pioneering analysis of himself. Nevertheless, Arnold Richards, editor of the American Psychoanalytic Association newsletter, dismisses any attention paid to Freud's private conduct: 'It has no scientific practical consequence. It's not relevant to Freud's theory or practice.'
What then, about attacks on Freud's theory and practice? In 'Father Knows Best: The Use and Abuse of Power in Freud's Case of "Dora" (Teachers College Press), academicians Robin Tolmach Lakoff and James C. Coyne offer a fresh view of one of Freud's most famously botched analyses. When "Dora", 18, sought Freud's help at her father's insistence in 1901, she told him the following story: her father was having an affair with the wife of Herr "K", a family friend. Herr K had been paying unwanted sexual attentions to Dora since she was 14 and was now being encouraged in this pursuit by her father, presumably as a way to deflect attention from the father's alliance with Frau K. After hearing this account, Freud, as feminists say, did not get it. He decided Dora really desired Herr K sexually, plus her father to boot, and he criticized her 'hysterical' refusal to follow her true inclinations, embrace her circumstances and make everyone, including herself, satisfied and fulfilled. She left Freud's care after three months.

If this sounds damming, more of the same and then some can be found in Allen Esterson's 'Seductive Mirage: An Exploration of the Work of Sigmund Freud' (Open Court). As a mathematician, Esterson is vulnerable to charges from Freud loyalists that he is an amateur, unqualified to discuss the mysteries of psychoanalysis. Maybe so, but his relentless examinations of discrepancies, doctored evidence and apparent lies within Freud's own accounts of individual cases make for disturbing reading. Esterson's argument is often most effective when it quotes the analyst directly on his
therapeutic techniques. Freud regularly sounds like a detective who solves a crime before interviewing the first witness: "The principle is that I would guess the secret and tell it to the patient straight out." Once Freud had made a diagnosis, the case, as far as he was concerned, was closed, although the treatment continued. 'We must not be led astray by initial denials. If we keep firmly to what we have inferred, we shall in the end conquer every resistance by emphasising the unshakeable nature of our convictions.'

Noting the fact that Freud's published case histories largely record inconclusive or lamentable results, some loyalists have adopted a fall-back position: Freud may not have been very good at practicing what he preached, but that lapse in no way invalidates his overarching theories.

These defenders must now confront 'Validation in the Clinical Theory of Psychoanalysis' (International Universities Press) by Adolf Grünbaum, a noted philosopher of science and a professor at the University of Pittsburgh. The book, which builds on Grünbaum's 1984 critique of psychoanalytic underpinnings, is a monograph (translation; no one without a PhD need apply) and a quiet, sometimes maddeningly obtuse devastation of psychoanalysis's status as a science. Grünbaum dispassionately examines a number of key psychoanalytic premises: the theory of repression (which Freud called "The cornerstone on which the whole structure of
psychoanalysis rests"), the investigative capabilities offered by free association, the diagnostic significance of dreams. Grünbaum does not claim that the idea of repressed memories, for instance, is false. He simply argues that neither Freud nor any of his successors has ever proved a cause-and-effect link between a repressed memory and a later neurosis or a retrieved memory and a subsequent cure.

Off the page Grünbaum is able to make his critique a little more accessible to lay people. Of the presumed link between childhood molestation and adult neurosis, he remarks, "Just saying the first thing happened and the second thing happened, and therefore one caused the other, is not enough. You have to show more"). Grünbaum find similar flaws in the importance Freud attached to dreams and bungled actions, such as so-called Freudian slips: "All three of these tenets - the theory of neurosis, the theory of why we dream and the theory of slips - have the same problem. All are undermined by Freud's failure to prove a causal relationship between the repression and the pathology. That's why the foundation of psychoanalysis is very wobbly."

How wobbly? Interestingly, Grünbaum himself thinks all is not lost, although his verdict is not entirely cheering: "I categorically don't believe Freud is dead. The question is, Are they trustworthy explanations? Have
the hypotheses been validated by cogent, solid evidence? My answer to that is no."

Frank Sulloway, a visiting scholar of science history at the Massachusetts Institute of Technology and a long-time critic of Freud's methods, takes a somewhat more apocalyptic view: "Psychoanalysis is built on quicksand. It's like a 10-storey hotel sinking into an unsound foundation. And the analysts are in this building, You tell them it's sinking, and they say 'it's OK we're on the 10th floor".

Sure enough, the view from this imaginary elevation remains largely untroubled. Psychoanalysts like to point out that their treatment is gaining converts in Spain, Italy and Latin America, plus parts of the former Soviet Union, where it had formerly been banned. Some 14,000 tourists a year flock to the Freud Museum in London, where they walk through the Hampstead house Freud owned during the last year of his life. His daughter Anna, who carried on her father's work with dedication and skill, remained there until her death in 1982. Freud's library and study, the latter containing a couch covered with an Oriental rug, remain largely as he left them. Some visitors last week may have come fresh from seeing a Channel 4 TV documentary put together by Peter Swales, another persistent critic of Freud, titled 'Bad ideas of the 20th Century: Freudism.' If so, their interest in
Freud memorabilia seemed undiminished, Michael Molnar, the Museum's research director and an editor of Freud's diaries, acknowledges that psychoanalysis is being challenged by new drug treatments and advances in genetic research. 'But', he argues, 'Freud is in better shape than Marx'.

Across the English Channel, a play called 'The Visitor' by the young dramatist Eric-Emmanuel Schmitt, has opened in Paris, featuring the octogenarian Freud and his daughter Anna as principal characters. Meanwhile the Grand Palais is staging an exhibition called "The Soul in the Body." with objects that manifest the interplay between art and science.

One of the major displays is the couch on which Freud's patients in Vienna reclined. In his leather-upholstered office a few blocks away, Serge Leclaire, 69, an ex-president of the French Society for Psychoanalysis, notes all this cultural hubbub in France and contrasts it with the assaults on Freud in the U.S. 'What happened to Freudian psychoanalysis in America is the fault of American psychoanalysts,' he says. 'They froze things into a doctrine, almost a religion, with its own dogma, instead of changing with the times.'

For their part, U.S. psychoanalysts admit that Freud had been taking some pretty hard knocks lately but deny that his impact or importance has waned as a result. Says George H. Allison, a Seattle-based analyst: 'I Think Freud's
influence in mental health as well as the humanities is much greater than it was 40 years ago. I hear much more being written and said about Freud.' Allison points to the proliferation of therapies - there are now more than 200 talking cures competing in the U.S. mental health marketplace, and 10 to 15 million Americans doing some kind of talking - and he argues that 'they really are based on Freudian principles, even though a lot of people who head these movements are anti-Freudian officially. But they are standing on the shoulders of a genius.'

This image raises anew the quicksand question. If Freud's theories are truly as oozy as his critics maintain, then what is to keep all the therapies indebted to them from slowly sinking into oblivion as well? Hypothetically, nothing, though few expect or want that event to occur. Surprisingly, Peter Kramer, author of the current best seller 'Listening to Prozac' comes to the defence of talking cures and their founder: "Even Freudian analysts don't hold themselves 100% to Freud. Psychotherapy is like one of those branching trees, where each of the branches legitimately claims a common ancestry, namely Freud, but none of the branches are sitting at the root. We'd be very mistaken to jettison the psychotherapy of Freud."

Frederick Crews, a professor of English at the University of California, Berkeley, and a well-known reviewer and critic, once enthusiastically
applied Freudian concepts to literary works and taught his students to do likewise. Then he grew disillusioned and now ranks as one of Freud's harshest American debunkers. Even while arguing that Freud was a liar and that some of his ideas did not arise from clinical observations but instead were lifted from 'folklore,' Crews grows cautious about the prospect of a world suddenly without Freud or his methods: "Those of us who are concerned about pointing out Freud's intellectual failings are not, by and large, experts in the entire range of psychotherapy. I take no position on whether psychotherapy is a good thing or not."

Such prudence may be well advised. Freud was not the first to postulate the unconscious; the concept has a long intellectual ancestry. Nor did Freud ever prove, in empirical terms that scientists would accept, the existence of the unconscious. But Jonathan Winson, Professor Emeritus of Neurosciences at Rockefeller University in New York City, who has done extensive research on the physiology of sleep and dreams, now claims Freud's intuition of its existence was correct, even if his conclusions were off the mark; He's right that there is a coherent psychological structure beneath the level of the conscious. That's a marvellous insight for which he deserves credit. And he deserves credit too for sensing that dreams are the 'royal road' to the unconscious.
That, finally, may be the central problem with declaring Freud finished. For all of his log rolling and influence peddling, his running roughshod over colleagues and patients alike, for all the sins of omission and commission the critics past and present correctly lay on his couch, he still managed to create an intellectual edifice that feels closer to the experience of living, and therefore hurting, than any other system currently in play. What he bequeathed was not (despite his arguments to the contrary), nor has yet proved itself to be, a science. Psychoanalysis and all its offshoots may in the final analysis turn out to be no more reliable than phrenology or mesmerism or any of the countless other pseudosciences that offer unsubstantiated answers or false solace. Still, the reassurance provided by Freud that our inner lives are rich with drama and hidden meaning would be missed if it disappeared, leaving nothing in its place.

Shortly after Freud actually died in 1939, W.H. Auden, one of the many 20th century writers who mined psychoanalysis for its ample supply of symbols and imagery, wrote an elegy that concluded:

...'sad is Eros, builder of cities,
and weeping anarchic Aphrodite'.

Auden's choice of figures from Greek mythology was intentional and appropriate. Perhaps Homer and Sophocles and the rest will prove, when all
is said and done, better guides to the human condition than Freud. But he did not shy away from such competition.

Paul (Gray)
Intertext #5

Black Holes ... (W)riting FictoPhysics ... After Einstein ... (1879-1955).

The prose piece, Black Holes, looks at how the too narrow confines of a purely representational and symbolic world of fiction and an undigested quantum physics, create both an ennui and a fictophysics too endemic across the academy...'he wondered how many books there were left to read, how many were already behind him, and how many were on his book shelves and in piles across his desk, around the perimeter of his room and in stacks against the wall in the hall '...

The letter, Dear David'* looks at the relationship between philosophy, gender, science and genres ...' women then were concerned with the private and the domestic, while men's concern was with the public and the state ... both were concerned with ethics, metaphysics, cosmology, epistemology and other areas of philosophical inquiry ...

The trickster's reply, Dear Jaki ... revisits quantum theory, in order to review what has been termed the 'Copenhagen Interpretation' ... ' the study of the behaviour of sub-atomic particles in this century, is supposed to have established at least three exceedingly curious facts about the physical world'...

* Professor David Z. Albert, Professor of Philosophy, Columbia University, New York, NY
Black Holes

He wondered often how many books there were still be read, how many were already behind him, and how many there were in his bookshelves and in piles across his desk, around the perimeter of his room and in stacks against the walls in the hall.

For years they had been his friends, his only friends - his only companions through days and nights, his lovers, his religion, and the only light in the dark, a reflection of every thought and question. They had filled him with passionate inquiry. Many times had he wept with delight over a phrase of poetry or prose, many times had his brain been set afire with an idea from a book of philosophy, history or fiction. How often had he shared his time with an author to such a degree that he and the writing of that person had become, for a time, inextricably one mind.

The visit to the doctor had changed all that, had in fact made him feel as one who has woken from a dream. At first he had thought that there must be some mistake, either in the doctor's assumptions, or in the dream, or even in the feeling of being woken up, but when he suddenly found himself hating books, he knew all three were true. And as he walked away from the surgery he thought about the doctor's phrase, "Books are taken from life, not life from books". And that phrase had done something awful to his mind,
and hurt him as though he had been struck, had hurt him more than anything else had ever hurt him, even more than the doctor's prognosis on the causes of pain.

He had wanted to argue about that, had suggested that for him they were the same thing, but the doctor wouldn't hear of it. Dismissed him with a prescription "to be taken three times a day" and had opened the door, indicating that he should leave.

As he walked home, a dialogue began in his brain - if I can't read books, love books or buy books what can I do? - what has meaning, what has value? I have food and shelter, a modest wardrobe and a pension for life. I have never done any work, there has never been any that I have wanted to do, and it seems to me that most people only work to feed themselves not because they love their work, not because they really know the value of the work or their time. No, they just do it the same way cows eat grass. I suppose it defines things like time and space for them, fills up their lives with meaning, such a pitiful negative feeling of hating work yet hating too much time with nothing to do. No, I've never found anything to do that so satisfies me as books do ... did.
There the dialogue ended. It established nothing, but it was new to him, this introspection of his own being. It was new to him to be analysing his fellow species in such concrete terms and not through the filter of the written word. It made him anxious to have these problems brought to such close quarters.

The business of time had never been much of a problem to him before the visit to the doctor. He had hardly even noticed the departure of his wife and children when they left one night after an awful fight about "books being more important than your own family". In fact, the peace had made it easier to settle down to a greater intensity of reading than he had previously known.

Had he been lonely? No, not really. He had been too busy for that, too busy to eat or shave or dress sometimes. Often days would pass by in such a tumble that he hardly felt them, could only reckon them by the stale milk and bread in the fridge and the stubble around his jaw, would think to himself it must be days since I've eaten. Had he ever questioned what he was doing? Yes, yes, he was looking for an idea that contained every idea. He thought that if he just kept reading, kept accumulating knowledge, somewhere along the way it would add up to one fantastic sum of comprehension.
He had believed in that, felt sure - no, certain - that somewhere, sometime, he would find the essence of it all, written down, and then he could act. And it was this search that gave him life and made him compulsively attracted to books. It simply never occurred to him to consider the possibility that such a search was like those black holes in space that he had been reading about the day before the visit to the doctor. It had not occurred to him that for the past forty years he had been living in one, that the sum total of his years was an escape from just such blackness. No, for forty years he had been in bondage, chained by his books, chained to the search. And in five seconds the chains were removed by the doctor and he was free.

How he hated to be free! Suddenly he was afraid and felt terribly lonely. Suddenly he wished it was his wife's face he would see as he opened the door of his house instead of the piles and piles of books with which he was confronted.

He was free, he who had not known that he was imprisoned. But free to do what? To confront only another prison, the prison of self, this planet consisting of black holes? Free to confront his impending blindness!
Blindness had been the doctor's prognosis, "a year or two at most if you continue to read, maybe ten if you don't, but blindness is inevitable". His first inclination was to go out and buy up all the books he could find on the subject, to gather up all available information on the experiences of blindness. Instead he remained seated at the reading desks that he had automatically gone to on arriving home. He forced himself to sit there and to try and think.

Think, he told himself. Just sit still and think. Time and again his mind resisted this alien order. Time and again he dragged the atrophied thing back to heel. Time and again it wriggled off into fantasy and imagination, or strayed affectionately towards a book that would distract it from itself. In all these years you have not had one thought of your own, not one action, not one joy that was not bestowed on you by book, he raged. And now we must work, you and I, in this country of the blind to solve the riddle of action, must decide to see or not to see, must make a decision.

In this way began his struggle for stillness and sight. For many days and nights he sat at that desk wrestling with the habit of books, turning over in his mind each word picture he had ever read, every nuance of meaning ever gleaned, every particle of knowledge and interpretation, until he had travelled the full circle of his life.
On completion of that circle, he rose to his feet and set about packing a small bag with a few personal items. Once done, he made his bed for the first time in years, also swept and cleaned until the house took on the glow of a Vermeer interior. Finally he sat at his desk and took up a pen and wrote to his solicitor, "The house and contents to my wife and children, all the books I bequeath to the library". There was little else to add - a reference or two to some repairs needed and that he was of sound mind, and that was that.

With those things done he took a last tour of the house, standing longest in the study and staring up at the shelves lined with books, saying goodbye to each one of them that his eyes caressed, saying to them, "Sorry my little pretties. For too long now you have been my eyes, showing me things I've never seen. Now I must go and see, must go and find and see. Ten years he gave me. Ah, it's a lifetime after all these years of blindness, ten years in which to really see."

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in A Routine Rape, 1984; 3
Dear David

Your piece of work on David Bohm’s critique of the Copenhagen Interpretation of quantum theory, reads to me like a piece of ficto-criticism; well mulched with philosophical and political implications for how we talk about ourselves post Einstein, Planck and Heisenberg (not to mention Darwin, Marx or Freud). One wonders if there is anything left to say, although feminism does come up with quite a lot of re-framing about what our priorities might be if patriarchy could relax its grip.

On the matter of gender, in the light of physics and philosophy it is quite hard to know where to begin. What I do know is that we women have been writing philosophy since the Pythagoreans, at least if we could write. The issues of values and ethics exercised our minds as did mathematics and literature. But our role as wives and mothers very often left us without much time for anything else. It was rather unexpected to find a place for a woman who could, or would, give voice to such inquiries.

Very often women wrote of their investigations in letters or diaries, since they had no other venue for the assaying of their work until the printing press gave birth to the novel and the woman’s movement gave voice to the possibility of an equality between men and woman and their pens.
I suppose the point I am making is that the kind of writing and knowledge that is talked about in your piece, and how a translation is made from mathematics to narrative was important to me since I do not have those literacies at my fingertips. I do rely on other writers from other disciplines to exchange ideas with me about how they explain us and how the world of physics inscribes us, and the assumptions that are made.

As a writer of fiction, I am also aware of how the ideas across the disciplines reverberate inter-textually, and we as a symbol using species love hearing, writing and telling stories. It seems to me that the kinds of stories we tell are kinds of (w)riting and kinds of knowing, that makes semantic order out of the seemingly chaotic star stuff around us. Perhaps I am even naive enough to actually think that the 'written down', with a critical reading, can even give us the time to take a reality check and philosophise in science and in fiction.

Jaki
Dear Jaki,

The study of the behaviour of sub-atomic particles in this century is supposed to have established at least three exceedingly curious facts about the physical world. First, pure chance governs the innermost workings of nature. Second, although material objects always occupy space, situations exist in which they occupy no particular region of space. Third and perhaps most surprising, the fundamental laws that govern the behaviours of "ordinary" physical objects somehow radically fail to apply to objects that happen to be functioning as "measuring instruments" or "observers." That at any rate is what the founders of quantum mechanics decided; that is what has since become the more or less official dogma of theoretical physics; and that is what it says, to this day, in all the standard textbooks on that subject.

But it is now emerging that those conclusions were settled on somewhat too quickly. As a matter of fact, a radically different, fully worked-out theory exists that accounts for all known behaviours of subatomic particles. In this theory, chance plays no role at all, and every material object invariably does occupy some particular region of space. Moreover, this theory takes the
form of a single set of basic physical laws that apply in exactly the same way to every physical object that exists.

That theory is principally the work of the late David J. Bohm of Birbeck College, London. Although his formulation has existed in the scientific literature for more than 40 years, it has until quite recently been mostly ignored. Throughout that period, the thinking about such matters has been dominated by the standard dogma, usually referred to as the Copenhagen Interpretation of quantum mechanics because it can more or less be traced back to the Danish physicist Niels Bohr and his circle.

I will begin this [letter] with an outline of the main arguments for the standard dogma. I will then indicate briefly how Bohm's theory manages to get around some of those arguments. Finally, I will say a little about how and where Bohm's theory fits into contemporary speculation about the foundations of quantum mechanics.

Perhaps the simplest way of formulating the arguments for the standard dogma is in the context of certain experiments with electrons. The experiments all involve measurements of two components of what are
usually called the spins of electrons. For simplicity's sake, I will refer to them as the horizontal spin and the vertical spin.

It happens to be an empirical fact (as far as we know) that the horizontal spins of electrons can assume only one of two possible values. The same applies for vertical spins. I will call the values of the horizontal spin right and left and those of the vertical spin up and down.

Physicists can measure the horizontal and vertical spins of electrons easily and accurately with currently available technologies. Spin-measuring devices typically work by altering the direction of motion of the electron fed into the device based on the value of its measured spin component. In this way, the value of that spin component can be determined later by a simple measurement of the electron's position. I will refer to these measuring devices as horizontal and vertical boxes.

Another empirical fact about electrons is that as a rule there are no correlations between their horizontal spin values and their vertical spin values. For example, of any large collection of right-spinning electrons fed into the entry aperture of a vertical box, precisely half (statistically speaking) will emerge through the "up" aperture and half through the "down" aperture.
The same applies for left-spinning electrons fed into the entry aperture of a vertical box and for up-and down-spinning electrons fed into horizontal boxes.

Another experimental truth about electrons, and an extremely important one for our purposes, is that a measurement of the horizontal spin of an electron can disrupt the value of its vertical spin, and vice versa, in what appears to be a completely uncontrollable way. If, for example, one carries out measurements of the vertical spins of any large collection of electrons in-between two measurements of their horizontal spin values of half of the electrons that pass through it are changed leaving those of the other half unchanged.

No one has ever been able to design a measurement of vertical spin that avoids such disruptions. Moreover, no-one has ever been able to identify any physical properties of the individual electrons in such collections that determine which of them get their horizontal spins changed in the course of having their vertical spins measured and which do not. What the official doctrine has to say about these matters is that in principle there can be no such thing as a vertical spin measurement that has anything other than precisely that effect on horizontal spin values. Furthermore, the standard doctrine dictates that it is a matter of absolutely pure chance which electrons
get their horizontal spins changed by measurements of their vertical spins and which do not; the laws governing those changes simply fail to be deterministic. And these conclusions certainly seem innocent and reasonable given the experimental data.

If measuring one type of spin indeed always uncontrollably disrupts the value of the other, then there can be no way of ascertaining the values of both the horizontal and vertical spins of any particular electron at any particular moment. This phenomenon is an example of the uncertainty principle: certain pairs of measurable physical properties, such as position and momentum or, in our case, horizontal and vertical spin, are said to be incompatible with each other. Measurements of one will always uncontrollably disrupt the other. Many other known examples of incompatible pairs of physical properties exist as well.

So much for indeterminism. But there are still more puzzling features of subatomic particles. Displaying them will require a more complicated experiment. Imagine a box that measures the vertical spins of electrons. Up-spinning electrons emerge from the box along a route labelled up; down-spinning electrons exit along a route labelled down. We can then arrange a pair of "reflecting walls" to make the two paths cross at some other point. These surfaces can be designed so as not to alter the spin properties of
electrons in any way. At the point where the two paths intersect, we place a "black box" that merges the paths back into one, again without altering spin values.

Suppose we feed a large collection of right-spinning electrons, one at a time, into the vertical box. The electrons travel along the paths to the black box. Then as they emerge from the exit of the black box, we measure their horizontal spins. What sorts of results should we expect? Our previous experience informs us that statistically half of such electrons will turn out to be up spinning and will take the up route through the apparatus. The other half will turn out to be down spinning and take the down route. Consider the first half. Nothing along the paths between the vertical box and the exit point can have any effect on the vertical spin values of the electrons. Therefore, they will all emerge from the apparatus as up-spinning electrons. In accord with our earlier data 50% of them will turn out to be right spinning and 50 percent left-spinning. The down-spinning half will have precisely the same horizontal spin statistics. Putting all these expectations together, it follows that for any large set of right-spinning electrons fed into this apparatus, half should be found at the end to be right-spinning and half to be left-spinning.
These conclusions seem absolutely cut and dried. But a funny thing happens when you actually try this experiment. Exactly 100 per cent of the right-spinning electrons initially fed into this apparatus (one at a time, mind you) come out right spinning at the end.

It is no exaggeration to describe this result as one of the strangest in modern physics. Perhaps modifying the experiment somewhat will clarify matters. Suppose that we rig up a small, movable, electron-stopping wall that can be slid at will in and out of, say, the up route. When the wall is out, we have precisely our earlier apparatus. But when the wall is in, all electrons moving along the up route are stopped, and only those moving along the down route get through to the black box.

What should we expect to happen when we slide the wall in? To begin with, the overall output of electrons at the exit of the black box ought to drop by 50 per cent, because one path is blocked. What about the horizontal spin statistics of the remaining 50 percent? When the wall was out, 100 percent of the right spinning whether they took the up or the down route. Thus, because the presence or absence of the wall on the up route cannot affect electrons on the down route, the remaining 50 percent should all be right spinning.
As you may have guessed, what actually happens in the experiment runs contrary to our expectations. The output is down by 50 percent, as predicted. But the remaining 50 percent are not all right spinning. Half are right spinning and half are left spinning. And the same thing happens if we insert a wall in the down path instead. (Readers familiar with quantum mechanics may recognize that this experiment is a logically streamlined version of the famous double-slit experiment.)

How can one understand the discrepancy between the results of these experiments and our expectations about them? Consider an electron that passes through the apparatus when the wall is out. Consider the possibilities as to which route it could have taken. Could it have taken the down route? Apparently not, because electrons taking that route (as the experiment with the wall in reveals) are known to have horizontal spin statistics of 50-50, whereas an electron passing through our apparatus without the wall is known with certainty to be right-spinning at the apparatus exit. Can it have taken the up path, then? No, for the same reasons.

Could it somehow have taken both routes? No: suppose that when a certain electron is passing through this apparatus, we stop the experiment and look to see where it is. It turns out that half the time we find it on the up path and locate nothing at all on the down path, and half the time we find it on the
down path, and see nothing at all on the up path. Could it have taken neither route? Certainly not. If we wall up both routes, nothing gets through at all.

Something breathtakingly deep, it would seem has got to give. And indeed, something does - at least according to what has become one of the central tenets of theoretical physics over the past half-century (it is the second of the three official dogmas to which I alluded in the opening paragraph, the one about the indefiniteness of position). That doctrine stipulates that these experiments leave us no alternative but to deny that the very question of which route such an electron takes through such a contraption makes any sense. Asking what route such an electron takes is supposed to be like asking about, say the political convictions of a tuna sandwich or about the marital status of the number 5. The idea is that asking such questions amounts to a misapplication of language, to what philosophers call a category mistake.

Hence, what physics textbooks typically declare about such electrons is emphatically not that the particles take the up route or the down route or both routes or neither route through the apparatus. Rather there is simply not any fact about which route they take - not merely no known fact, but no fact at all. They are in what the textbooks term a superposition of taking the up route and the down route through the apparatus.
Notwithstanding the profound violence these ideas do to our intuitive picture of the world, to the very notion of what it is to be material, to be a particle, a compact set of rules has been cooked up that has proved extraordinarily successful at predicting all the observed behaviour of electrons under these circumstances. Moreover, these rules - known of course as quantum mechanics - have proved extraordinarily successful at predicting all the observed behaviours of all physical systems under all circumstances. Indeed, quantum mechanics has functioned for more than 70 years as the framework within which virtually the entirety of theoretical physics is carried out.

The mathematical object with which quantum mechanics represents the states of physical systems is referred to as the wave function. In the simple case of a single-particle system of the kind I have been discussing, the quantum-mechanical wave function takes the form of a straightforward function of position. The wave function of a particle located in some region A, for example, will have the value zero everywhere in space except in A and will have a non-zero value in A. Similarly, the wave function of a particle located in some region of B, will have the value zero every-where in space except in B and will have a nonzero value in B. And the wave function of a particle in a superposition of being in region A and in region B - the wave function for example, of an initially right-spinning electron that
has just passed through a vertical box - will have nonzero values in both of those regions and a zero value everywhere else.

And it is a cardinal rule of quantum mechanics (a rule that Bohm's theory will explicitly break) that representing physical objects by a wave function represents them completely. It states that absolutely everything there is to be said about any given physical system at any given instant can be read from its wave function.

What the laws of physics are about - indeed, all that the laws of physics could be about, all that there is for the laws of physics to be about, according to quantum mechanics - is how the wave functions of physical systems evolve in time. The textbook version of quantum mechanics refers to two categories of such laws. And what is particularly peculiar about this formulation is that one of those categories applies when the physical systems in question are not being directly observed, and the other applies when they are.

The laws in the first category are usually written down in the form of linear differential "equations of motion." They are designed to entail, for example, that an initially right-spinning electron fed into a vertical box will emerge from that box in a superposition of travelling along the up route and travelling along the down route. Moreover, all available experimental
evidence suggests that those laws govern the evolutions of the wave
functions of every single isolated microscopic physical system under all
circumstances. So, because microscopic systems are the constituents of
everything that exists, there would on the face of it seem to be good reason
to suppose that those linear differential equations are the true equations of
motion of the entire physical universe.

Yet that conclusion cannot possibly be quite right if wave functions are
indeed complete descriptions of physical systems, as quantum mechanics
maintains. To begin with, the laws expressed by those equations are
completely deterministic, whereas an element of pure chance seems to play a
role in the outcomes, for example, of experiments with the spin boxes.

Consider the outcome of a measurement of the position of an electron that is
initially in a supposition of being in region A and being in region B.
Straightforward calculations reveal that the linear differential equations of
motion offer a definite prediction about the end of such a measuring process.
Those equations, however, do not predict that the measuring device would
either indicate that the electron was found in A or that the electron was
found in B (which is what happens when you actually make measurements
like that). Rather those equations say the measuring device would with
certainty end up in a superposition of indicating that the electron was found
in A and indicating that the electron was found in B. To put it slightly differently, those equations predict that the measuring device would end up in a physical state in which there is simply no fact about what it is indicating. It hardly needs mentioning that such superpositions (whatever they are, precisely) do not correctly describe how things end up when you actually make such a measurement.

As a result, according to the official reasoning, the first category of laws needs to be supplemented with a second, which will be explicitly probabilistic. It demands, for example, that if the position of an electron that is initially in a superposition of being in region A and region B were to be measured, there would be a 50 percent chance of finding that electron in region A and a 50 percent chance of finding it in region B. In other words, if the position of the electron were measured, there would be a 50 percent chance that the electron's wave function will be altered in the course of the measurement to one whose value is zero everywhere other than in region A and a 50 percent chance that its wave function will be altered to one who value is zero everywhere except in region B. (This alteration is sometimes called a "collapse" of the wave function.)

How does one distinguish those conditions in which the first category of laws applies from those in which the second category does? All the
founders of quantum mechanics had to say was that it has something to do with the distinction between a "measurement" and an "ordinary physical process," or between what observes and what is observed, or between subject and object.

For some time, many physicists and philosophers have viewed this state of affairs as profoundly unsatisfactory. It has seemed absurd that the best existing formulation of the most fundamental laws of nature should depend on such imprecise and elusive distinctions. The challenge of either eliminating or repairing that imprecision has emerged over the past 30 years as the central task of the foundation of quantum mechanics. It has gone by a number of names: the problem of Schrödinger's cat, for example, or of Wigner's friend, or of quantum state-reduction. I will refer to it by its most common contemporary name: the measurement problem.

One particularly striking solution to the measurement problem was invented by the American-born physicist David J. Bohm. The French physicist Louis de Broglie had devised a related scheme some years earlier, but de Broglie's formulation was much less general and powerful than was Bohm's. More recently the late physicist John Bell recast Bohm's original theory into a very simple and compelling form.
Notwithstanding all the evidence to the contrary presented above, Bohm's theory presumes that particles are the sorts of things that are invariably located in one or another particular place. In addition, Bohm's theory is a great deal clearer than is the Copenhagen Interpretation about what the world is made of. In Bohm's account, wave functions are not merely mathematical objects but physical ones, physical things. Bohm treats them somewhat like classical force fields, such as gravitational and magnetic fields, such as gravitational and magnetic fields. What wave functions do in Bohm's theory (just as classical force fields do) is to in effect push the particles around, to guide them, as it were along their proper courses.

The laws that govern the evolutions of those wave functions in time are stipulated to be precisely the standard linear differential quantum-mechanical equations of motion - but this time with no exceptions whatever. There are other laws in Bohm's theory as well that dictate how those wave functions push their respective particles around. All those laws are fully deterministic. Therefore, the positions of all the particles in the world at any time, and the world's complete quantum-mechanical wave function at that time, can be calculated with certainty from the positions of all the particles in the world and the world's complete quantum-mechanical wave function at any earlier time.
Any incapacity to carry out those calculations, any uncertainty in the results of those calculations, is necessarily in this theory an epistemic uncertainty. It is a matter of ignorance and not a matter of the operations of any irreducible element of chance in the fundamental laws of the world. Nevertheless, this theory entails that some such ignorance exists for us, as a matter of principle. The laws of motion of Bohm's theory literally force this kind of ignorance on us. And this ignorance turns out to be precisely enough, and of precisely the right kind, to reproduce the familiar statistical predictions of quantum mechanics. That happens by means of a kind of averaging over what one does not know, which is exactly the kind of averaging that goes on in classical statistical mechanics.

The theory describes a real, concrete, and deterministic physical process - a process that can be followed out in exact mathematical detail - whereby the act of measurement unavoidably gets in the way of what is being measured. In other words, Bohm's theory entails that this ignorance - although it is merely ignorance of perfectly definite facts about the world - cannot be eliminated without a violation of physical law (without, that is, a violation of one or the other of the two laws of motion from which everything else about Bohm's theory follows).
Bohm's theory can fully account for the outcomes of the experiments with the two-path contraption - the experiments that seemed to imply that electrons can be in states in which there fails to be any fact about where they are. In the case of an initially right-spinning electron fed into the apparatus, Bohm's theory entails that the electron will take either the up or the down route, period. Which of those two routes it takes will be fully determined by the particle's initial conditions, more specifically by its initial wave function and its initial position. Of course, certain details of those conditions will prove impossible, as a matter of law, to ascertain by measurement. But the crucial point here is that whichever route the electron happens to take, its wave function will split up and take both. It will do so in accordance with the linear differential equations of motion.

So, in the event that the electron in question takes, say, the up route, it will nonetheless be reunited at the black box with the part of its wave function that took the down route. Of course, certain details of those conditions will prove impossible, as a matter of law, to ascertain by measurement. But the crucial point here is that which ever route the electron happens to take, its wave function will split up and take both. It will do so in accordance with the linear differential equations of motion.
So, in the event that the electron in question takes, say, the up route, it will nonetheless be reunited at the black box with the part of its wave function that took the down route. How the down-route part of the wave function ends up pushing the electron around once the two are reunited will depend on the physical conditions encountered along the down path. To put it a bit more suggestively, once the two parts of the electron's wave function are reunited, the part that took the route that the electron itself did not take can "inform" the electron of what things were like along the way. For example, if a wall is inserted in the down route, the down component of the wave function will be missing at the exit of the black box. This absence in itself can constitute decisive information. Thus, the motion that such an electron executes, even if it took the up path through the apparatus, can depend quite dramatically on whether or not such a wall was inserted.

Moreover, Bohm's theory entails that the "empty" part of the wave function - the part that travels along the route the electron itself does not take - is completely undetectable. One of the consequences of the second equation in the box below is that only the part of any given particle's wave function that is currently occupied by the particle itself can have any effect on the motions of other particles. So the empty part of the wave function - notwithstanding the fact that it is really, physically, there - is completely incapable of leaving any observable trace of itself on detectors or anything else.
Hence, Bohm's theory accounts for all the unfathomable-looking behaviours of electrons discussed earlier every bit as well as the standard interpretation does. Moreover, and this point is important, it is free of any of the metaphysical perplexities associated with quantum-mechanical superposition.

As to the measurement problem, it can be persuasively argued that Bohm's theory can suffer from nothing of the kind. Bohm's theory holds that the linear differential equations of motion truly and completely describe the evolution of the wave function of the entire universe - measuring devices, observers and all. But it also stipulates that there are invariably definite matters of fact about the positions of particles and, consequently, about the positions of pointers on measuring devices and about the positions of ink molecules in laboratory notebooks and about the positions of ions in the brains of human observers and thus, presumably, about the outcomes of experiments.

Despite all the rather spectacular advantages of Bohm's theory, an almost universal refusal even to consider it, and an almost universal allegiance to the standard formulation of quantum mechanics, has persisted in physics, astonishingly, throughout most of the past 40 years. Many researchers have perennially dismissed Bohm's theory on the grounds that it granted a
privileged mathematical role to the positions of particles. The complaint was that this assignment would ruin the symmetry between position and momentum, which had been implicit in the mathematics of quantum theory up until then - as if ruining the symmetry somehow amounted to a more serious affront to scientific reason than the radical undermining, in the Copenhagen formulation, of the very idea of an objective physical reality. Others dismissed Bohm's theory because it made no empirical predictions (no obvious ones, that is) that differed from those of the standard interpretation - as if the fact that those two formulations had much in common on that score somehow transparently favoured one of them over the other. Still others cited "proofs" in the literature - the most famous of which was devised by the American mathematician John von Neumann, and all of which were wrong - that no deterministic replacement for quantum mechanics of the kind that Bohm had already accomplished was even possible.

Fortunately, those discussions are mostly in the past now. Although the Copenhagen interpretation probably remains the guiding dogma of the average working physicist, serious students of the foundations of quantum mechanics rarely defend the standard formulation any more. A number of interesting new proposals now exist for solving the measurement problem. (There are, for example, attempts at resuscitating in a more precise language the idea of a collapse of the wave function, which I mentioned earlier.) It is
against those, against other proposals yet to be invented and, of course, against the experimental facts that Bohm's theory will ultimately have to be judged. The jury on all that is still very much out.

Bohm's theory is the only serious proposal around just now that is fully deterministic. It is also the only one that denies there are any such things as suppositions, even for microscopic systems. But it is certainly not free of transgressions against what one might call common physical sense. Perhaps the most flagrant of those transgressions is nonlocality. The theory allows for the possibility that something that occurs in region A can have a physical effect in region B, instantaneously no matter how far apart regions A and B may happen to be. The influence is also completely independent of the conditions existing in the space between A and B (see "Faster than Light?" by Raymond Y. Chiao, Paul G. Kwiat and Aephraim M. Steinberg; Scientific American, August 1993).

But nonlocality may be something we need to learn to live with, something that may simply turn out to be a fact of nature. The standard formulation of quantum mechanics is also nonlocal and so are most of the recently proposed solutions to the measurement problem. Indeed, according to a famous argument of Bell's any theory that can reproduce those statistical predictions of quantum mechanics already known to be correct and that
satisfies a few extremely reasonable assumptions about the physical nature of the world must necessarily be nonlocal. The only schemes that have been imagined for denying those assumptions and so avoid nonlocality are the "many worlds" and "many minds" interpretations of quantum mechanics. They suggest that in some sense all possible experimental outcomes, and not simply one or another of those outcomes, actually occur. And they are (maybe) too bizarre to be taken seriously.

Workers have raised various other concerns as well. What is the exact philosophical status of the probabilities in Bohm’s theory? Does guaranteeing that every particle in the world invariably has a determinate position really amount to ensuring that every imaginable measurement has a determinate outcome and that everything that we intuitively take to be determinate is really determinate? Those questions continue to be the subject of active debate and investigation.

Finally, and most important, I must stress that all of what has been said in this article applies, at least for the moment, only to nonrelativistic physical systems. That is, it pertains just to systems whose energies are not very high, that are not moving close to the speed of light and that are not exposed to intense gravitational fields. The development of a Bohmian replacement for relativistic quantum field theory is still under way, and the ultimate
success of that enterprise is by no means guaranteed. If such a replacement were somehow found to be impossible, then Bohm's theory would have to be abandoned, and that would be that.

But as it happens, most other proposals for solving the measurement problem are in a similar predicament. The exceptions, once again, are the many-worlds and many-minds interpretations, whose relativistic generalisations are quite straightforward but whose metaphysical claims are difficult to believe. Much of the future course of quantum mechanics will hinge on how attempts at relativisation come out.

In the meantime, the news is that a great deal more than has previously been acknowledged about the foundations of our picture of the physical world turns out to be radically unsettled. In particular, the possibilities that the laws of physics are fully deterministic and that what they describe are the motions of particles (or some analogue of those motions in relativistic quantum field theory) are both, finally and definitively, back on the table.

David (Albert)
Dear Reader, A Postscript

I declare myself a female “trickster” and my work is in the limitary space of cultural studies. A practice of resistance and subversion and unmasking, of taking seemingly familiar pathways, only to have them become strange.

My letter (w)riting is the practice of an anti-disciplined genre. My thesis production is cross-genre and cross-disciplinary and disturbs on purpose, the privileging of one genre of knowledge making over another.

This dishevelment is the ‘trickster’s business. Hermes, the trickster, subverts the established order of things, and unfreezes what is frozen so as to make change possible.

In the use of letters as my thesis genre, I write from the liminal, positioned on the margins, the edges. The limitrophe, on the frontier, adjacent to lands set aside for the support of the frontier troops.

This liminal position is the position between logic (philosophy) and letters (literature) and is a gendered place allocated to the female, and cultural studies that appropriates, borrows and straddles the intellectual landscape from old established disciplines to new political movements, intellectual practices and modes of inquiry.
I have chosen to construct this thesis as a series of letters because the genre 'letters' performs a discursive function. It harbours within them the possibility for the deconstruction of binaries such as logic/letters, philosophy/literature, fiction/facts, and opens up an engagement with ideas, knowledge and kinds of knowing without disembodiment.

The western philosophical tradition is the tradition of The Book – The Talmud, the Torah, the Bible – scripto-centric, instruction manuals about “how to live”, and all have been written with a hidden agenda of self-interest privilege and domination, by an elite group of scholars, usually male.

Writing is, of course, one of the main features of those societies considered to be civilized, but in the case of Ancient Egypt this too is now perceived to have its pre-dynastic precursors. It was once thought that the Egyptian system of writing drew its inspiration from Mesopotamia, particularly the Sumerian Civilization.

This was always something of a problematic idea because the hieroglyphs bore little resemblance to Mesopotamian writing, but the alternative - that they had developed out of the barbarism of the pre-dynastic period- was considered altogether unlikely.

(Rudgely, 1998:15)
Genre Theory, according to Thomas Kent, is concerned to “codify the objective unchanging, formal literary conventions that remain inert or fixed throughout history” (Bennet, 1992).

I suggest all the letters in this thesis can be read as fragments, shards from literature, essays on science and philosophy. The reading process as Walter Benjamin argues is an act of ‘translation’.

Fragments of a verse which are glued together must match one another in the smallest detail, although they need not be like one another. In the same way translation, instead of resembling the meaning of the original, must lovingly and in detail incorporate the original’s mode of signification thus making both the original and the translation recognisable as fragments of a greater language just as fragments are part of a vessel…

(Niranjana, 1992:118)

Therefore we thus have two new uses for alphabet-writing and for writing at length. One was to accumulate scientific knowledge. The other was to improve the theatre. In fact the dialogue of the drama became the model for writing down the record of philosophical disputes and the words of renowned teachers. To an extent never before in history, human beings began to write in a conversational way. Far more important
than what they thought about science, law and philosophy is the fact that the Greek speaking peoples thus made alphabet writing a powerful instrument for recording what people think on any topic.

(Hogben, 1969:21)

There is a truth about the world. In poetry and narrative this truth is expressed in an improper form, a form alien to itself. But in philosophy this same truth is expressed in proper form: truth’s own form, the mode of expression demanded by its nature as truth” ...

(Mackay 1993:6)

Discourse on genre as a pre-scriptive and stable form of writing, leaves untold the story of the academic cultural and social conditions that construct and limit the forms of certain genres and value them (thesis, essay) as high prestige and others as low prestige (letters).

Women as linguistic performers are consistently downgraded by men as well as women; women’s talk is ‘gossip’ or ‘chat’, while men’s is ‘discussion’; novelists write ‘women’s novels’ about women and men, that are not universal, while men write novels about men and women that are; women speaking or writing with passion about controversial issues are ‘shrill’ and ‘hysterical’, epithets seldom applied to men simply because one disagrees with them.

(Poynton 1985:39)
Letters are about conveying ‘the news’, certain kinds of letters and therefore certain kinds of ‘news’ are considered important.

Important letters, important news, are letters about business, policy, government, scientific and philosophical (ethics) matters; they function in the public forums and are injunctive and instructive. An often cited example of this kind of letter is the apostle Paul’s Letter/Epistle to the Ephesians.

As a precursor to the “novel” (news) or the “gospel” (witness), the epistle-letter conveyed knowledge about the world and conveyed ideas about how the social and political affairs of social life was or ought to be conducted. These were pre-criptive letters and they were the domain of the men who held positions of authority.

"Language misleads us into thinking that every noun is a thing and that things are endowed with permanence and a set of enduring aspects of their own. We are truly baffled when someone asks us what happens to a person’s lap when he stands up. We must guard against this tendency of mistaking the aspect of the object for the object itself”

(Harth, 1982)
We come of age when at last after the protected dreams and squabbles of childhood, we open the door upon the world and see it without illusion. Or so we like to imagine. Actually, all we see is that fragment framed by the door. Call the door a theory. Inevitably we are discontented by the narrowness of the frame no matter how magnificent the artisan’s work.

(Broderick, 1997: ix)

The schema in figure one (see beginning of document) of the *Evolution Of The Hand* locates this writer in the species-specific class of primates, “The experienced fingers quietly pushing dark against bright, silk against roughness, pulling the tenets of life together…” The human subject is “biologised”, and reason is given a basis in nature and mind is ‘grounded’ in the physical development of the brain. (Hall, 1992:284).

According to some contemporary theorists of literature we are living in an age when books as we traditionally conceive them are no longer possible. The word ‘book’ implies a degree of coherence and organisation which is neither appropriate nor desirable in a world where the individual voice has been decentred, disinherited, stripped of its imaginary resonances. The shining that seemed in an earlier epoch to surround and sanctify the hush of human utterance in written form melts away as the voice and the book dissolve into a plethora of half-complete ‘texts’, voices, incommensurable ‘positions’. Between the two moments – a world of difference

(Hebdige, 1998:1)
The problem with thesis writing is that it is writing. When the rhetoricians in the academy put a label on thesis writing to define its difference from narrative, for example, it was and is categorised within prescriptive generic boundaries. (Harvie, 1994). Limits are placed on the thesis as writing which arise from the place of writing within the known boundaries of disciplines. Disciplines are institutionalised privileged discursive practices which mark textual borders and limit generic territories. Circumscribing thesis writing as both narrative and reasoning is charting its cartographic place beyond the bounds of the known world. The thesis is the very epitome of proper writing, well placed, properly disciplined and well connected to authority. Any attempt to question the proper place will necessarily be improper (Harvie, 1994).

Subversive writing is writing that is not charted a proper place, or that which is marked with the improper and dangerous in the place of the dragons and griffins outside the known on our maps. Each discipline has a map which represents the authorised border of its own generic territories. Generic territories are in turn policed by border guards at border posts. Genres in this document are best understood as reading strategies that position readers to anticipate certain characteristics. Readers are taught to decipher truth in particular genres and to anticipate lies in others.
This is a thesis written by one who is a writer of short stories published by an academic press. Formed as a particular disciplined subject within the disciplines of Social Ecology and Education this 'good subject' has become what Cate Poynton has said is a "bad subject with respect to disciplinary training" (Poynton, 1992, p. 4).

The strategy of speaking as a 'bad subject' is similar to the parliamentary procedure for supplementary questions. Questions raised about genre and writing/reading practices are supplementary to those usually raised by writing practices. Because questions are in addition to the usual questions gives an advantage of introducing a subversion, a disruption. The frontier explored lies in the space between argumentation and narrative.

This writing does not aim to reproduce boundaries, define or to erase boundaries, but to create a space in which to engage readers in a conversation about (w)riting and (k)nowing. This thesis does not undervalue the gaining of a PhD, but is a practice of broadening the traditional conventions and requirements of the orthodox genre of knowledge making.
This heterogeneous space is created by poems and stories that reason about philosophical issues, letters that are scientific inquiries, essays that are translated into letters. Readers are persuaded by this writing strategy to consider that reasoning and narrative are not in opposition but in fact are the necessary conditions for the possibility of the other.

No one method, form of writing, speaking position, mode of argument, can act as representative model or ideal for feminist theory. Instead of attempting to establish a new theoretical norm, feminist theory seeks a new 'discursive space', a space where women can write, read and think "as a woman". This space will encourage a proliferation of voices, instead of a hierarchical structuring of them, a plurality of perspectives and interests instead of the monopoly of the one - new kinds of questions and different kinds of answers.

(Grosz, 1998:90)

This writing is concerned to demonstrate that the thesis which has acquired the status of a single genre can be read as 'improperly' mixed. Genre, it seems, can be read not as a series of proper linguistic orderings realised in text but can be read as other. There is a desire to contain writing by reading strategies which reproduce familiar generic boundaries but a new discursive space is created when an essay for example is translated into a letter and thereby destroying the hierarchical structuring that Grosz alludes to.
If genre is a particularly suspect term in feminist writing practice that is in
good part because feminist theorists have exposed some of the ways in which
supposedly value-free literary classifications actually privilege male discourse.
Feminist writers like Anne Cranny Francis, Mary Harvie and Deborah Tannen
have allowed us to see "genre as the authorising and valorising instrument of
the male canon, a grid barring women entrance" or a "map on which women’s
writing occupies the far flung regions of obscurity" (Harvie, 1994: 30).
Feminists suggest that the thesis genre profits male expression at the expense
of women’s experience. Generic prescriptions impose a regularity against
which women’s writing must, if it appears at all, appear deviant.

The feminist critique of genre as an engendering system lays the groundwork
for these letters. At the same time, however, there has been an enormous
amount of interest in the genre of letters themselves and this interest has
served to establish letters as a kind of writing with its own conventions that are
transformed and transcended by successive practitioners. Recent studies like
*Dialectic and Narrative* (Flynn and Judowitz, 1993) have complicated the
relationship between reasoning and narrative by focusing attention on the ways
that scientific texts necessarily use narrative in the construction of scientific
knowledge and narratives necessarily employ logical sequences of events.
The letters in this thesis can be read as ‘volatile genres’, that is to say categories of writing like narrative, argumentation, explanation and description which cross disciplines like biology, anthropology and philosophy. Kevin Hart (1991:12) writes “philosophy views itself not just as a discourse on the truth (which is only one of its concerns) but as a discourse which tells the truth. Philosophers may develop accounts of categories but not of genres: the former is a matter of concepts; the latter words. […] Truth claims are one of the effects of all texts, regardless of genre and – in some instances of experimental writing – despite protestations to the contrary. Philosophy cannot rid itself of all tropes (and to that extent is literary, while literature cannot prevent itself from making philosophical claims”.

To write, or read, or think, or inquire, would cloud our beauty and exhaust our time, and interrupt the conquests of our prime, whilst the dull manage of a servile house, is held by some our utmost art.

(Lady Winchelsea, 1661, cited in Virginia Woolf, A Room of One’s Own, 1929: 91)

Virginia Woolf quoted this verse in the book she published in 1929 on the subject of ‘women and fiction’. Exactly fifty years after the publication of A Room of One’s Own, we find ourselves still debating the questions she raised therein.
Gender and Genre: After Feminism, A Work in Progress

Ever since women took up their pens and began writing, they have had to work against the grain. Whether composing sonnets, essays, autobiographies or novels they have had to operate both with and against generic traditions in order to locate appropriate modes of expression for their experiences. Because generic conventions stem from historical, cultural and social standards that have privileged men's experiences and literary voices, women writers have had to adapt, shape and revise the conventional forms in order to challenge the masculine notion of authority as knowledge and culture producers that make sense of the world as if the gender of the writer is not a variable.

Woman must write herself: must write about women and bring women to writing from which they have been driven away as violently as their bodies ... for the same reasons, by the same law with the same fatal goal. Woman must put herself into the text ... as into the world and into history ... by her own movement. The future must no longer be determined by the past.

(Cixous, 1980:20)

This thesis is an attempt to make visible these hidden and engendered rules of reading and writing, that control how form and content are strategies of control and oppression. Traditionally narration or storytelling has been viewed as a
different genre of knowledge producing form such as the essay, with its
essentially dialogic nature and its assumptions of internalised discursive
knowledge of the rules.

Arguments were viewed as rational, formal, rhetorical and based on a set of
premises and conclusions based on special rules that produced 'truth
conditions' such as the syllogism. Fiction, or story-telling, on the other hand
was viewed as non-rational and un-truthful.

Fisher (1987:142) however, believes that narrative also involves rationality
and can go beyond the traditional rationality of the essay genre of
argumentation and also set up 'truth conditions' not usually recognised as
such. Narrative can also require reasoning that is as diverse as either technical
or rhetorical genres and can encompass a broader variety of rationality and the
generic assumptions made about non-fiction as 'truth conditional' in textual
productions.

No matter how strictly a case is argued – scientifically, philosophically or
legally – it will always be a story, an interpretation of some aspect of the world
that is historically and culturally in and shaped by the human personality

A point of view can be presented in many ways, in many genres, and the
privileging of technical discourses over other ways of knowing and
communicating is an instrument of symbolic oppression, control and violence as a colonising power. For Fisher narration is not merely fictional stories, but any verbal or non-verbal account that has a sequence of events to which readers or listeners assign meaning. The narrative paradigm describes what people do when they communicate. It does not dictate what they should do as does the traditional argument learned in the debate course. A good story shows, it does not tell.

Whether woman can, by breaking silence, by speaking and writing, overcome binary opposition, phallocentrism and logocentrism, I do not know. All I do know is that we humans could do with a new conceptual start (Tong 1989: 233).

Like genre, knowledge is broken up into disciplines. Like genres, disciplines are part of a taxonomy of knowledge, and institutional invisibility of women has provided a context for an un-queried gender bias in research and the powerful taxonomic influence of genre.

This thesis is a form of (w)riting arrived at as a solution to the problem of accounting for the (k)nowing that is possible only because we are inscribed before we write by the canon of the books of our culture for example the old and new testaments of the bible, Shakespeare, Darwin, Freud, Marx and Einstein. Generic forms of (w)riting have regulated and prescribed my
strategies for reading and therefore my (k)nowing. Both (w)riting and reading control the meaning I can make of who I am and how I am expected to conduct myself. This thesis is an attempt to make visible the hidden rules of reading and writing games.

[...] one essential characteristic of the essay that has remained unmentioned so far; its inherent dialogic nature. In order for so detached a genre as essay to operate socially, it needs a ready audience which is in possession of internalised discursive knowledge of the rules.


In my practice as an educator I was constantly faced with student religious superstitions and pseudo scientific “truths”, and the harm they did seemed to be a retreat from “sanity” for example astrology, tarot cards, runes and unicorns.

Traditionally, narration or story-telling has been viewed as a different genre from argumentation. Arguments were viewed as rational, whereas stories were viewed as non-rational. Traditional arguments can be formal, as in the case of technical logic, or informal as the case of rhetorical discourse; but in either case argument has always been viewed traditionally as a set of premises and conclusions on specialised rules of argument.
In disagreement with this view (Fisher 1987:49) believes that narrative also involves rationality. Narrative can incorporate traditional rationality but it goes beyond this to include other forms of rationality not often recognised.

In other words reasoning is more diverse than either technical or rhetorical argument realises, and the narrative paradigm encompasses a broader variety of types of rationality.

Fisher summarises:

[In narrative] no form of discourse is privileged over others because its form is predominantly argumentative. No matter how strictly a case is argued – scientifically, philosophically or legally – it will always be a story, an interpretation or some aspect of the world that is historically and culturally grounded and shaped by human personality.

(Fisher, 1987: 49)

The philosophy of science adopted by Darwin, Freud, Marx and Einstein is empiricism but empiricism’s silent partner is a theory of the subject unencumbered by social or cultural context or a body. This universal disinterested subject of dead white Eurocentric men has been critiqued by feminist philosophers such as Sandra Harding (1998). Feminists have shown
that knowledges lack the means to understand their own historicity, materiality and discursive forms. Indeed the historicity of knowledges is explicitly excluded as irrelevant to the contemporary forms of these knowledges. This absence of awareness of the social and cultural context and embodiment of the knower I now believe leaves out any discussion of the political influence of forms of (w)riting which regulate prescribed strategies for reading which in turn influence what is valued as knowledge and what is not.

Just as literatures can take us, the readers, to others places, to others ways of seeing and being, so too does the scientific essay tell us stories about us, and about the world. Science tells us how, and literature (including philosophy) tells us why. The science story is to be read as truth, the literatures are to be read as deceit, a dichotomy I find untenable. In my professional formation I was taught to read science as certainty or truth, whilst literature was to be read as un-certainty and deceit.

To demonstrate this point, of how to read the essays in this document, essays that I have translated in a solipsistic gesture, as Dear Jaki, they must be read as “once upon a time” stories. Dennett on Darwin; the Primate that writes, whilst Gray puts the microscope of literary criticism on to Freud’s propositions, and Albert deconstructs Einstein’s and Heisenberg’s cosmology, and Taussig interrogates the motions of “social construction” and memesis in representation with a fine aesthetic and political authorial style.
Persuasion occurs when people see good reasons for adopting the advocated point of view. Good reasons can be presented in the form of traditional reasoning or they can be presented in other ways. In the narrative paradigm, positive values constitute good reasons to accept a claim.

What is narration? For Fisher narration is not merely fictional stories but any verbal or non-verbal account that has a sequence of events to which listeners assign meaning. The narrative paradigm describes what people do when they communicate, it does not dictate what they should do, as does the traditional argument learned in debate courses.

This text, this thesis, is written by a She who is the knowing subject, rather than the universal and generic He who is the all knowing subject. Therefore the constitutive practice of knowledge production may appear Xenophobic, that is to say, foreign and even monstrous if it is read through the spectacles of convention.

Mary Daly invokes the metaphor of spinning to describe the creation of knowledge and to connect the process with women’s traditional creative activities. She claims that ‘Gyn/Ecology’ spins around, past and through established fields, opening the coffers/coffins in which ‘knowledge’ has been stored, re-stored, re-covered ... (where) its meaning will be hidden from the ‘Grave keepers’ of tradition (Code 1995:14)
A recent example of what Daly terms ‘epistemological enforcement by patriarchal culture’ came from the medical profession. A She who knows, Dr Helen O’Connell (1998), traced and mapped the full connective anatomy of the clitoris, the history of which had not been documented in the 200 years of the medical professions bible Gray’s Anatomy. Patriarchy, with its fixation on the phallocentric, literally wrote off the anatomy of the clitoris, and with it female sexuality as a territory unworthy of exploration and of illegitimate epistemological import.

The conventions of Genre also patrol and legitimate epistemologies and map the anatomy between Literature, Philosophy and science ... the semantics of which determines the truth conditions that prevail as constructions of knowledge. Between these generic conventions lies the undifferentiated and the mythopoetic, the no-mans land, of the feminine monstrous, the land of text-tiles, of spinning, weaving, cooking and babies. And the land of Letters and Her-story, that can be read as the writing of a She who knows. Here, in the hyphen, broken or unbroken, She takes the story from the between and reinserts herself into His-story as one who knows.

Hermes was a trickster, the tutelary god of speech and writing, and etymologically 'he of the stone heap' was associated with boundary stones. I have declared myself the trickster also, a woman who (w)rites herself into text and history, and a She of boundary stones.
My project has been about how gender does inform culture making and sense making, and researching the question "how shall I live", which informs all my writing and includes my theorised fictional work.
PLEASE NOTE

The greatest amount of care has been taken while scanning the following pages. The best possible results have been obtained.
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