BROWN BODIES, WHITE COATS:

POSTCOLONIALISM, MĀORI WOMEN, AND SCIENCE

A thesis

submitted in fulfilment

of the requirements for the Degree

of

Doctor of Philosophy

at

The University of Waikato

by

ELIZABETH ANN MCKINLEY

The University of Waikato

2003

Abstract

This project investigates the historical construction of 'Māori woman' and the constitution of the subjectivities of Māori women scientists today. The central question that is raised by the thesis is 'Do discourses of 'race' and gender found in Enlightenment science at the time of Aotearoa New Zealand's colonization continue to affect the contemporary subjectivity of Māori women scientists, and if so, how?' I have used literary historical techniques and feminist narrative interviews to collect the research data. Deconstruction, and its technique of 'double reading', has been applied through out the thesis to both the literary historical texts (imperial archives) and the transcripts of the interviews. I have argued that a poststructuralist view of the 'splitting the subject' to enable multiple positions must be read alongside the postcolonial view of a contemporary 'colonized subject' of an already 'split' subjectivity.

This thesis is divided into two sections. Section A investigates Māori women as the objects of science. I argue that in Aotearoa New Zealand journeys of discovery and colonization were also scientific journeys that brought 'Māori woman' under the intellectual control of the emerging 'scientific' academy. At the same time, drawing on the 'imperial archives', I show that stereotypical signifiers are incorporated within scientific discourses and shape the fictions that these texts represent. In Section B I draw on open-ended interviews with 16 Māori women scientists who were asked to discuss their identity in relation to their schooling and workplaces. I explore the conditions by which the subject 'Māori women scientist' emerges and how the Māori women experience these conditions in relation to how they see themselves. I conclude by arguing that the identity of 'Māori woman scientist' appears to be 'impossible fiction' due to the fragmented nature of the sign –' Māori, 'woman' and 'scientist' – that can be 'traced' to the historical construction of the signs.

Aknowledgements

Table of Contents

List of Figures

List of Tables

Figure 1.1   *Māori women weaving flax baskets* painted by Gottfried Lindauer, c.1903 (Bell, 1980:225)
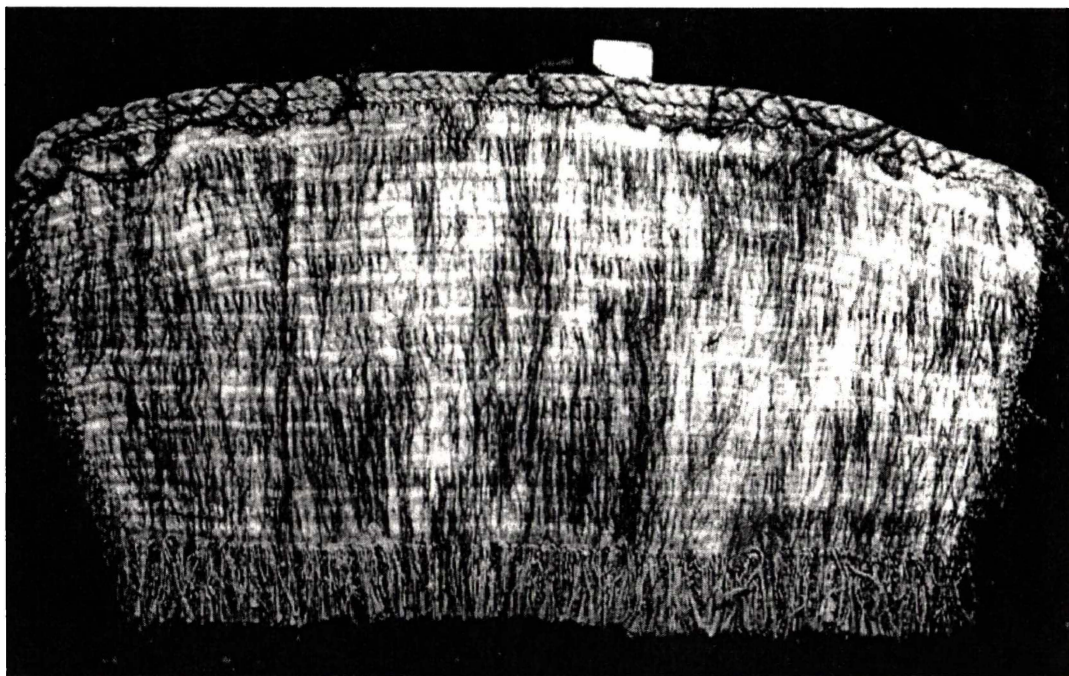
Figure 1.2   New Zealand Māori Cloak (Oldman 754) held in the Museum of New Zealand, Wellington. (Beever & Gresson, 1995)

CHAPTER ONE

Introduction

In the Museo Nazionale Antropologia e Etnologia[1] in Florence, Italy is a New
Zealand Māori[2] cloak collected, along with other items now held at the museum,
on James Cook's third voyage to New Zealand in 1777 (Beever & Greeson,
1995). The cloak was 're-discovered' by an Auckland museum curator and was
labelled as 'seaweed cloak No. 42'. Traditionally Māori women wove the cloaks
from the golden-brown coloured fibres of dried New Zealand flax (*Phormium
tenax*). As the cloaks are woven, further materials are often incorporated on the
outer surface for both warmth and decoration. The surface material most
commonly used at the time was dyed flax and to a much lesser extent feathers,
dog hair and other plant material such as seaweed (Papakura, 1986). The
Auckland museum curator, on her return to New Zealand, brought back a
fragment of the outer surface material for positive identification. Maryanne, one
of the Māori women scientists in this study, was approached to examine and
identify the fragment. The piece was identified as *Polytrichadelphus
magellanicus*[3]- a native moss. The Māori 'Seaweed cloak No. 42' in the Florence
museum was in fact a 'moss cloak'. The Museum of New Zealand in Wellington[4]
holds the only other known example and is one of much lesser quality (Beever &
Greeson, 1995).

This extraordinary narrative encapsulates some of the main ideas to be found in
this thesis. Finding this Māori cloak in the 'far-off' lands of Europe and the return
of the 'unknown fragment' to New Zealand and its identification highlight what
appear to be contradictions. The taking of the Māori cloak by Cook's scientists
was part of the Enlightenment science project in the eighteenth century that set out
to categorize and name the world. However, more importantly, the return of the
fragment has enabled 'Māori woman traditional cloak maker' and 'Māori woman

---

[1] The National Museum of Anthropology and Ethnology
[2] Maori is the name given to the indigenous people of Aotearoa New Zealand
[3] Beever and Greeson (1995) suggest Maori knew the *Polytrichum* moss, and probably the *Polytrichadelphus*
as well, as 'tetere-whete' and 'totara'. Apparently the 'totara' tree is not unlike the foliage of polytrichaceous
mosses.
[4] Now known as Te Papa Tonga rewa.

scientist' to come into view together and connect within the discipline of science. The brown cloak made by the brown body has been brought home to a white coat that covers a brown body – once again to objectify and place under the microscope, to become 'known' in another way. The 'Māori woman scientist' in her scrutinizing produces 'new knowledge' of the cloak through the correction of the label in the Florence museum. Seaweed cloaks, in Māori culture, are associated with death and were made for the person in mourning whereas moss cloaks have no such meaning (Dickson, 2002). Maryanne, as a Māori woman scientist, returns the 'gaze' of the colonial 'scientists'. In other words, Maryanne embodies a contradictory statement – she represents the 'knower' (scientist) and the 'known' (Māori woman) but simultaneously displaces both by not being an exact 'copy' of either. In this brief moment - in the space of the narrative - Maryanne stands in an "undecidable enunciatory space where the culture's authority is undone in colonial power – [she has] taught culture's double lesson" (Bhabha, 1994:136).

Brown bodies, white coats is about the doubling of Māori women and science. The title is deliberately suggestive of multiple relationships between the two. In particular, this project explores two connections - Māori women in science and Māori women as scientists. 'Māori women in science' refers to how Māori women have been 'put under the microscope' and the knowledge produced as a result of this scrutiny. In other words, it is about Māori women positioned as 'objects' of scientific gazing mainly as a result of the colonizing encounter between Māori and European. This thesis explores how we have become 'known' and what we have become known as. 'Māori women as scientists' refers to becoming and being a scientist. That is, Māori women occupying the 'subject' position of science and being the one who does the scrutinizing. My thesis is also indicative of a possible doubling of identity. The white coat of the scientist can act as a technique of camouflage to conceal or mask the brown (female) body – to mimic 'whiteness'. I am suggesting that 'Māori woman scientist' may not be a fully realizable subject position. However, one of the paradoxes of this research is that I find myself critiquing scientific disciplines for making Māori women 'objects' of research while at the same time the Māori women scientists have become 'objects' of my research. As this project partly emerges from my own personal experiences as a Māori woman involved in science education this is also an objectification of the self. Judith Butler (1997) suggests it is impossible to clearly separate object and subject because they are dependent on one another. However, therein lies the 'play' – the inherent doubling and ambivalence. As a Māori woman I occupy an "optics [that] is a politics of positioning" (Haraway, 1996:257) - in other words, a

2

position of viewing that is possibly 'different' from the scientists who have scrutinized Māori women previously. This creates a situation that Naomi Scheman (1996:213) suggests, "is not to take 'subject' and 'object' to name ontological categories but reciprocal, shifting positions". It is the contradictions, tensions and possible connections between the positions that Māori women occupy in science with a view to breaking down the distinction between 'object' and 'subject' that I will explore in this thesis.

Some personal beginnings

By the time I became a postgraduate student I already had several questions relating to my identity as a Māori woman in science and science education. For the purposes of the thesis I am using 'identity' to mean how I identify myself.

<div style="text-align:center">

Ko Aorangi te maunga

Ko Wairarapa te moana

Ko ngā ti Hinewaka te hapū

Ko ngā ti Kahungunu ki Wairarapa te iwi.

Ko Aoraki te mau ngā

Ko Rapaki me Tūāhiwi ngā marae

Ko ngā ti Wheke me ngā i Tūāhuriri ngā hapū

Ko ngā i Tahu te iwi

Ko Liz McKinley ahau.[5]

</div>

Diana Fuss (1995:2) puts it - "the self that identifies itself". I attended secondary school in the early 1970s and as a 'bright' Māori girl I was placed in the 'top' academic class through the schooling practice of 'streaming', where students were separated into different classes based on 'intelligence', which was common practice in secondary schools at the time (Olssen, 1988). Between this practice and my interest in 'hard' science subjects – maths, physics, chemistry – I spent most of my years at secondary school as the only Māori (woman) student in many courses. As I attended university and the level of specialisation in science increased so did my sense of isolation from other Māori (women) students. In taking up teaching, particularly in a large urban state girls' school with a high Māori population in the mid 1980s, I began to crystallise questions that had 'sat' in the back of my mind regarding my personal experiences as a Māori woman

---

[5] This is a greeting (mihi) in Maori that identifies the writer/speaker with features of the landscape and tribes from the area where they come from. Literally it names mountains (maunga), lake (moana), marae (meeting places), hapū (family groups) and iwi (tribe). In my mihi it identifies two tribal groups - Ngāti Kahungunu and Ngāi Tahu. See p.223 for a full translation.

involved in science and teaching. As a 'Māori woman science teacher' I had been welcomed to the position of Head of the Science Department as a 'role model' for Māori girls. In my twelve years of teaching, fewer than five Māori girls made it to my Year 13 Chemistry classes. The girls in science education literature (see for example, Clewell, Anderson & Thorpe, 1992) had identified having negative attitudes and perceptions of science, insufficient preparation for coursework, and limited knowledge of the professions, such as having role models, as 'barriers' for girls and minority students in school science. However, such explanations left more questions than they answered.

My own experiences made me think there were other ideas about 'girls' and 'minority students' not being addressed in the literature. For example, in the late 1980s, after I had been teaching at the school for 3 years, the Principal of my school approached me one morning interval and asked if 'I considered myself to be Māori'. She used the reason of having to fill in statistical information for the Department of Education to ask the question, although this has been standard yearly practice in New Zealand schools. So what had she written in previous years? I had never questioned my 'Māori woman' identity previously as I carry the visible 'markings' of being identified as Māori, and I had never considered I had the 'choice'. I had never thought how my identity as a 'Māori woman' could be a question for someone else. My immediate reaction to this question was that it was something I could not avoid as "every identity is an identification come to light" (Fuss, 1995:2). In other words, identity is also about identification. However, the question did suggest I am 'positioned' in people's minds identified by visible, 'racial markings', and that these are constantly drawn upon to distinguish me from other science teachers or 'bright' girls. This suggests to me there is 'knowledge' about me that somehow relates to the visible characteristics seen on my body. How was it that I might be 'known' to people by how I 'look'? What was the contradiction of 'Māori woman' and 'science'?

Being appointed to a position at the Hamilton Teachers College in 1991, now the School of Education at Waikato University, I pursued postgraduate studies looking for some explanations relating to my questions and hoping for possible answers. I now turn to the literature I read in my attempt to find these explanations. The divisions that follow do not indicate any specific disciplinary field of study. Rather, they are a narrative of how I came to 'know' the literature. This part is divided into three sections called science education, women and science, and postcolonial theory, 'race' and science. Each section is intended not as a comprehensive literature review of the discipline fields but a reading against

the grain representing "moments of transgression" (Spivak, 1996a:211). In other words, this is a reading to pose questions.

Science education

In the early 1990s, international literature in science education was discussing the need to address 'real-life' situations, develop scientific literacy for citizenship, promote science as a cultural phenomenon, use problem-solving activities to develop creativity and decision making skills, and starting from and building on children's existing knowledge and experience (Hodson, 1993). At the time I was teaching student teachers and involved with national science curriculum development in English and Māori, where all these trends came to be reflected in the aims and objectives (Ministry of Education, 1993, 1996). To me the change of emphasis from the acquisition of 'scientific knowledge' in the 1960s and 1970s to one where society and the student were seen as more central to learning in the 1980s and 1990s, seemed to promise a lot to science education and to Māori learners. For example, the emphasis on the need to begin teaching from an understanding of the prior knowledge and experiences of the learners and to build from there to assist with their development of their understanding of the world was, I thought, particularly promising. However, two major research projects of the 1980s that became the basis for many studies in science education in the years that followed, the Children's Learning in Science Project (CLISP) in Britain and the Learning in Science Project (LISP) in New Zealand, never considered ethnicity as a major variable in children's understanding of school science concepts. This suggested to me that children's prior understandings of scientific concepts were seen to be 'culture-free'.

With respect to 'culture' I follow Said (1993) when he says it encompasses two meanings that operate simultaneously.

> First of all it means all those practices, like the arts of description, communication and representation, that have relative autonomy from the economic, social and political realms and that often exists in aesthetic forms, one of whose principal aims is pleasure. Included are both the popular stock of lore about distant parts of the world and specialized knowledge available in such learned disciplines as ethnography, historiography, philology, sociology, and literary history. [...] Second, and almost imperceptibly, culture is a concept that includes a refining and elevating element, each society's reservoir of the best that has been known and thought ... culture comes to be associated with the nation or the state; this differentiates 'us' from 'them' ... culture in this sense is a source of identity ... (Said, 1993:xii-xiii).

Both these ideas are put to use in science education research and literature. For example, the first meaning of culture is reflected in the idea of using children's prior knowledge and experiences as a foundation on which to build a curriculum. Some Māori students bring to their science lessons the belief that inanimate (from the perspective of Western science) objects, such as carvings, stones and rivers, have a living spirit or mauri. This is considered to be 'unscientific' and can be 'dismissed' as children's incomplete understandings or infantile knowledge, or even 'pre-scientific' knowledge. In this sense, the second meaning of culture is in the implications of this that 'Māori knowledge' is not, or less than, 'scientific knowledge'. That is, the contents of science curricula are often exclusively 'Eurocentric' or Western in orientation. 'Culture-free' is used in the sense that science knowledge does not acknowledge the social relations of science – the connection between 'culture' and the construction of all knowledge (Harding, 1993).

Some science educators have gone as far as arguing for a cultural exclusion theory of education. For example, Michael Matthews argues:

> Why people feel driven to assert equality of achievement between cultures is itself interesting. It seems more sensible to say that some cultures do some things well and other cultures do other things well. European Jewry has had (but only since the mid 1800s) terrific success in fostering scientific talent, it clearly has had no success in fostering sporting talent. The Hmong people of South-East Asia have wonderful handicraft traditions but little achievement in technical areas. The medievals built gracious cathedrals, but they did not master science. Some cultures have outstanding musical traditions, while other cultures barely rise above noise production. (Matthews, 1995:217)

Matthews implies that some students are 'naturally good' at particular curricula while presumably being 'naturally bad' in other areas. In other words, everyone is 'born' with deficiencies and capabilities according to our 'racial' backgrounds, creating a hierarchy of peoples, which will affect the education we receive, and hence the careers to which one can aspire. In addition, Matthews' choice of example reflect a further hierarchy of 'knowledge' as the 'white races' are naturally good at science and building gracious cathedrals – that which requires 'intellect' - and the Asian Hmong people are naturally good at handcrafts or manual work. In other words, Matthews is marking out 'subject peoples' (Foucault, 1977) where 'white' peoples are shown to be 'naturally' dominant over 'other' or non-white groups because they are more intelligent. The effect of this statement is to construct knowledge of peoples in order to justify the 'absence' of different groups of people in science and to maintain the status quo.

What did find favour in the science education literature in the 1980s and early 1990s was a 'celebration' of cultural diversity, or multiculturalism because it does support the 'status quo'. On the assumption that all cultures are 'equal' and people will gain a greater understanding and acceptance of others different from themselves if they are exposed to different cultures, Troyna (1987) argued for what he termed the 'three S approach' – saris, samosas and steel bands. This approach emphasised the learning of custom and dress and some of the more exotic aspects the lifestyle of different cultures for 'better understanding'. In other words, culture can be isolated as an "epistemological object"(Bhabha, 1994:34). The major criticism with this approach is that culture is seen as being 'fixed' in artefacts and customs, and that culture is untainted by its historical locations, safe in a romantic, mythical past. In multicultural education the dominant group gets to decide what parts of another culture are included into the mainstream by "policing the boundaries of cultural intelligibility" (Fuss, 1995:143).

Some science educators from African and Caribbean countries or working with Indigenous groups in the late 1980s and early 1990s published research challenging the notion that students' prior conceptual understandings of science were 'culture-free' (see George & Glasgow, 1988; Jegede, 1988; Ogawa, 1989; Christie, 1991). For example, Jegede and Okebukola (1991) showed major differences between African and European children in conceptions of time, the use of mythical or magical explanations for natural phenomenon, and in viewing nature as benevolent instead of controlling it for use. George and Glasgow (1988) described how Caribbean children's existing views of science may influence learning such as a pregnant woman drinking milk (which is white) making her baby 'light' in colour. The argument forwarded by these writers for taking students' cultures into account in learning science was for motivation – to try to get the students to enjoy science, try harder, to build their self-esteem and, hence, to succeed (see McKinley, Waiti & Bell, 1992). Considering the other large and widely known projects of CLISP and LISP, why did it take the work of Black African and Caribbean peoples to point out what other researchers had 'missed'?

However, there is little documentation of the far more subtle differences that may exist among cultural groups in the same society, such as Māori and Pākehā in New Zealand. When writing the Māori science curriculum in 1994, I became aware of how subtly our teaching of school science can 'violate' understandings of the world. For example, in the latest curriculum documents (Ministry of Education, 1993, 1996), five year-olds are taught to categorise the world into living and non-living. This idea is in conflict with Māori world-views but is

accepted 'fact' and very fundamental in school science in the sense that this 'distinction' is foundational to classification and categorisation. Is this an example of Spivak's (1984) 'epistemic violence'? Do such practices contribute to alienation from science? Māori cultural knowledge as knowledge to be learned in science still remained marginal to the main issue of teaching and learning as was shown by the recent development of the Māori version of science curriculum statement where the work was a 'translation' of the English version (see McKinley, 1995, 1996).

At the same time, during the 1980s there was a growing literature on girls in science education both here (see Bell, 1988) and internationally (see Kelly, 1981, 1987; Kahle, 1988). Jane Gilbert (1998) has argued, in her work on girls in science education in New Zealand, that much of the early literature tended to focus on deficiencies in the girls/women. This research suggested that individual attitudes and personality traits of girls/women were responsible for girls/women not participating or achieving in science and science education (see Kelly, 1981). The underlying assumption was that if girls don't do science there must be something wrong with their perception of science, of themselves, and/or of the world. This resulted in intervention strategies being devised and implemented, which were designed to boost the girls' confidence and to 'correct' their perceptions of science (Kelly, 1981; Gilbert, 1993). For example, liberal feminists decided that it was the predominance of men science teachers in school that created masculine images of 'science', especially the 'hard sciences' of mathematics, physics and, to a lesser extent, chemistry (see Byrne, 1993). Hence, this led to campaigns like 'Girls can do anything!' found in New Zealand schools in the 1980s which encouraged schools to find 'role models' in their communities to speak with or work alongside the girls as 'mentors'.

The vast majority of the girls in science literature followed a similar pattern to that described above with respect to 'culture' in science education –it treated girls as a single, unified and homogenized group. The few studies that did differentiate found they had another 'victim' – culture - in which to place the 'cause' for 'minority student' failure to tale part in science at school. For example, Clewell et al (1992) emphasized deficit theories, located in the person and 'culture', and rarely questioned other aspects such as the nature of science knowledge being taught. It appeared that 'special interest' groups, such as 'minorities', Māori, and students with special needs, tended to be conceived of in parallel with the 'girls in science education debates' but "at least a lap behind Pākehā" (Fry, 1985:156). 'Māori girls' science education seemed to be excluded from science education

literature instead of being doubly included through 'culture' and 'girls'. No matter where I looked in the science education literature I found I had to divide myself up in order to fit. Am I a sum of my parts? Is being a 'Māori', 'woman' and 'science teacher (scientist)' the same as a 'Māori woman science teacher (scientist)'? I existed under the rubric of Māori and girls – the 'excluded bodies' of science education – but at the same time, it was claimed I was included in 'mainstream' science education literature. In theory I occupied more than one place but as a Māori girl/woman I was not visible in any of them.

Women and science

In a similar vein to the overall frame to this thesis, the literature on women and science falls into two broad groups – 'women scientists' and 'women in science' (see Keller, 1982; Schiebinger, 1987; Rose, 1994). This section will show how these two strands in the literature are "inseparably intermingled" (Spivak, 1988a:16) through the 'lived experiences' of individual women. At the same time, I continue to read against the grain.

'Women scientists'

The literature on 'women scientists' primarily targets issues of access and participation (see Kelly, 1981; Clewell et al, 1992; Byrne, 1993). For example, it scrutinizes structural barriers to participation through the interrogation of institutions that employ scientists (see Zuckerman, Cole & Bruer, 1991; Byrne, 1993); recovers life stories in order to raise the profile of women scientists who may have been hidden or forgotten (see Arnold, 1984; Alic, 1986); and focuses on the history of science - who writes it and who it is about (see Stanley, 1983). With regard to participation and access to institutions, one argument is that the women are there, just 'hidden' or silenced and what is needed is to 'find' their stories (see Alic, 1986). This historical and biographical work is celebratory in that the authors suggest that women have always been involved in 'doing' science, and that women have made significant contributions but have never had the visibility (see Reid, 1974; Quinn, 1995). Hence, the objective of 'recovery' stories is to make the women scientists 'visible' with the anticipation that it will encourage further participation in science by women. However, by trying to emphasize the similarities between men and women by fitting women to an already established 'scientist' mould, these writers depict the women scientists in the stories as being different - 'women as exceptional'. Adrienne Rich (1979) has suggested this is 'female tokenism' where access is offered to a few women who 'think like men'

on condition that they use it to maintain the status quo. As a result, it appears that entry to the science profession is based on 'merit' and the 'token' woman is encouraged to see herself as different from most other women. This is confirmed by Ruth Kundsin (1965), a researcher in bacteriology, who argued that 'scientific' women were not acclaimed for their achievements but were rather singled out for their oddities, were resented by other women, and were considered socially inadequate if they were unmarried. However, in my research I found only one book on Black women scientists (Warren, 1999). In the context of Aotearoa New Zealand we have one small book that contains brief assorted biographies of ten Māori men and women, which has been written with a similar purpose of 'recovery' stories mentioned above (Martin, 1996).

The other main argument in the 'women scientists' literature is that the representation of women in science can be improved through increasing women's ease of access to advanced education and science institutions (see Byrne, 1993; Rossiter, 1982, 1995). Hence, feminist science writers turned to looking at institutional structures as barriers. The strategy was to emphasize 'fairness', and to develop policies on equal opportunity, employment procedures, maternity leave, childcare support and the like (see for example, Byrne, 1993; Jones, 1998). In a similar vein to the 'recovery stories' cited above, some women scientists published their own stories about their experiences (see for example, Kundsin, 1965; Keller, 1977). Many of these stories spoke about the difficulties of getting into research positions, undergoing sexual harassment, the difficulty of staying in science, and the conflicts between experimental science and the demands of childcare and family responsibilities as carefully documented by Margaret Rossiter (1995). However, Jones' (1998) research into institutional organizations in New Zealand found that these strategies have increased the number of Pākehā women in the institutions but have done little, if anything, for 'coloured women'. Is there an 'unspoken' or 'unseen' attribute attached to 'woman'? Why should these strategies help Pākehā women and not, for example, Māori women?

Nancy Brickhouse (1994) articulated the access and participation argument in terms of trying to get 'outsiders', that is groups that have been 'excluded' and are noticeably absent, 'into' science and science education. Yet other literature is about following and recording women's science career 'pipelines' to try to understand where and why it is 'going wrong' and to 'correct it' (Rossiter, 1982, 1995; Byrne, 1993; Etzkowitz, Kemelgor and Uzzi, 2000). While these arguments brought into the question the role of institutional practices in women's exclusion from science they do not challenge the structural nature of the exclusion, that is,

the discipline of science itself (Rossiter, 1982; Kahle, 1985; Harding, 1993). All these 'scenarios' pivot on the "science/woman" conflict – 'is it possible to be a 'scientist' and a 'woman' at the same time?' The optimum time for career advancement in the sciences seemed to coincide with the optimum child-bearing years for women. Since women cannot 'pass on' the child-bearing duties to men, she can find herself multiply positioned as 'scientist', 'wife' and 'mother' simultaneously. Elizabeth Spelman (2000) calls this the 'additive' analysis of identity – woman and scientist - and she argues that it underplays the effects on one another. A more crucial question than the one above may be, 'How are the links between 'scientist' and 'woman' conceived'? Do institutional practices play a role in this relationship? And if so, how?

The article by Nancy Brickhouse (1994) on getting 'outsiders' into science points to a 'gap' in the 'women scientists' literature – that is, very little can be identified as pertaining to 'coloured' woman scientists. For example, Margaret Rossiter's (1982, 1995) comprehensive and detailed two volume account of women scientists in the USA has little if any reference to scientists of African American or Native American Indian identity. More recently Wini Warren (1999) has written a book that details the lives of 104 Black women scientists in the genre of 'recovered stories'. While such stories have their limitations in analyzing issues of 'race' and gender in relation to being a scientist, it does indicate that Black women scientists have been around for a very long time. So why have they been rendered more 'invisible', with their highly visible 'blackness', than 'white' women in the history of women scientists in the United States?

An interview with Black historian of science, Evelynn Hammonds (1993) begins to respond to some of these questions. In the interview Hammonds speaks of her experiences as a student at school and, in particular, as a physics doctoral student at the Massachusetts Institute of Technology (MIT) in the 1970s. After being subjected to constant racism and sexism, and not being able to find any literature to help her deal with the situation, Hammond decided to leave MIT stating that her place in the institution placed her in conflict with who she was. She writes:

> I am always Black and female. I can't say 'well that was just a sexist remark' without wondering would he had made the same sexist remark to a white woman. So, does that make it a racist sexual remark?... I just take it as somebody has some issues about me and who I am in the world. Me being Black, female and wanting to do science and be taken seriously. (Hammonds, 1993:248).

Hammond raises an extremely important issue for all 'coloured women'. What are the connections between 'race', 'woman' and 'science'? Are white women in

science seen differently from Black/coloured women? When writing about 'women scientists' did the feminist writers recognize this omission surrounding 'race'? And if not, why not? The recuperative drive to place women scientists in the history of science is at best a 'partial' – incomplete and partisan - account.

However, the major general critique of the 'women scientists' literature by some feminist writers is that the discipline of 'science' is never challenged by these arguments (Keller & Longino, 1996). In particular, a response was needed to the debate between the 'biological determinists' and those that supported that the term 'woman' was predominantly a social construction. The 'biological determinists' argued that women were not scientists for reasons that were based on 'natural sex differences' (see Goldberg, 1973, 1993). Feminist science writers argued that an individual's capacities emerge from a complex web of interactions between the biological being, or corporeal body, and the social environment (see Lowe & Hubbard, 1979; Bleier, 1984; Fausto-Sterling, 1985). In order to make this argument the feminist science writers drew on the work of poststructuralist theorists, such as Michel Foucault, where language is not seen as being 'self-evident' but becomes a site where our sense of being is constructed. I now turn to this literature that I have termed the 'women *in* science' literature which examines 'science' and how it constructs what it means to be a 'woman'.

'Women in science'

Critical to the 'women in science' literature was the concept of 'gender' as opposed to the more conventional biological concept of 'sex'. According to Joan Scott (1988), 'gender' is considered to be a social construction that assigns historically and culturally dependent meanings to 'sexual difference'. As a result, the categories of 'woman' and 'man' are not viewed as natural entities with fixed identities but as constructions of gender with variable meanings across time and culture that form, what Foucault referred to as, 'discourses'. Discourses are ways of constituting knowledge. Foucault describes them as:

> ... based on an 'already-said; and that this 'already-said' is not merely a phrase that has already been spoken, or a text that has already been written, but a 'never-said', an incorporeal discourse, a voice as silent as a breath, a writing that is merely the hollow of its own mark (Foucault, 1972:25).

This suggests that discourse is about not only what is written or spoken but also silence or absence. For the women in science, the biological discourses of 'sex' excluded accounts of how women's lives were subjected to being shaped by practices and how this contributed to the meaning of 'woman'. This focus of 'gender' enabled feminist writers to begin to distinguish the social constitution of

'masculine' and 'feminine' from the biological categories of 'male' and 'female', or 'sex' (Keller & Longino, 1996).

In particular, the literature focuses on scientific and medical discourses as a key source of men's control over women's bodies. For example, anthropologist Emily Martin (1996) has shown how male reproductive physiology is evaluated differently from female's. She argued that the roles of egg and sperm drawn in scientific and popular accounts of reproductive biology rely on stereotypes central to our cultural definitions of male and female. The imagery and metaphors used to describe the process of fertilization portray the sperm as aggressive, decision-maker, penetrating and powerful, and the egg as passive and waiting to be penetrated. Furthermore, she argues that these metaphors continue to be used despite other models being available in biology. Combining the work on gender with developments in history, philosophy and sociology of science, feminist scholars working in science, and particularly biological sciences and medicine, have provided clear evidence of the historically close relation between cultural ideals of masculinity and conventional conceptions of knowledge and reason (for further examples see Merchant, 1980; Bleier, 1984; Fausto-Sterling, 1985; Tuana, 1989; Lloyd, 1993). Work such as this enabled feminist writers to challenge 'science' as a form of patriarchal epistemology.

This research changed the orientation to the 'problem' from women scientists and structural barriers to a view of women as produced by the discourses of science (Rose, 1994; Keller & Longino, 1996). Again, drawing on the work of Foucault, feminist sociologists, philosophers and historians were challenging the binaries that they argue have shaped Western science and 'produced' particular understandings of 'woman'. For example binaries, such as nature/culture, subjective/objective, and body/mind, have been produced through discourses of science whereby the first term, often associated with the feminine, was measured against the second term (masculine) and found to be 'inferior'. The argument is that dividing the world into the 'knower' (mind) and the 'knowable' (nature) produce binaries. Francis Bacon (as cited in Lloyd, 1996) highlighted this relationship, and assigned them gendered positions, when he wrote, "Let us establish a chaste and lawful marriage between Mind and Nature". For Bacon nature was female and knowable, and it was the purpose of science to dominate 'her'. According to Bacon, Man is both 'minister' and 'interpreter' of Nature. Science is able to prescribe the relationship between the two by setting the scientific mind, or that of the knower, apart from what it is to be known, or nature.

If the scientific mind is masculine, then nature is feminine. Furthermore, feminist science writers argue that the way in which the knower acquires knowledge is also 'genderized' as it can only be achieved through masculine scientific and objective thought (Keller, 1985). This illuminates a double process - that of a 'gendered' science being produced by a 'gendered' knowledge system. What this work suggests is that what might previously be thought of as idiosyncratic, or individual aberrations, can now be located embedded within the norms and methods of science. Furthermore, philosophers of science have argued that the dualisms – subject/object, male/female, culture/nature - have contributed to the maintenance of a hierarchical domination (Merchant, 1980; Keller, 1985; Lloyd, 1996). In other words, discourses are 'productive'. Foucault (1981:100) states, "it is in discourse that power and knowledge are joined together". Furthermore, how this power and knowledge is produced and exercised is determined by:

> ... the things said and those concealed, the enunciations required and those forbidden, [...] with the variants and different effects – according to who is speaking, his position of power, the institutional context in which he happens to be situated ... (Foucault, 1981:100).

Discourses, according to Foucault, are both an instrument and an effect of power. The feminist science writers suggest that 'men' are positioned in science to enable them to produce knowledge of 'woman' and, hence, have the 'power' to name what it means. However, while the feminist science writers were 'accusing' men of producing a science deeply infused with negative knowledge of 'woman', Black American writers were turning their thoughts to 'who' was writing about this group called 'women'.

During the 1980s a growing number of Black women writers from the USA, reacting against what they perceived as racism in 'feminist' analyses, began to insist that discourses of 'race', gender and class form a crucial triad and this was not evident in the work of 'white' feminists (Bhavnani, 2001). The mood and message of many of the Black feminist writers is perhaps best summed up in Audre Lorde's (2001) famous essay entitled "The Master's Tools Will Never Dismantle the Master's House"[6]. Lorde and others have argued that 'gender' had been privileged over 'race' in the feminist literature, and 'white' had been assumed in all the stories. In particular, they pointed out that the 'sisterhood is global' discourse had denied them the space to assert their differences and masked power inequalities within the feminist movements. The women often drew upon their own experiences as a starting point to demonstrate why feminist analyses

---

[6] Originally written in 1984.

needed to pay attention to 'race'. However, of particular interest to this thesis is that the focus on both experience and difference seemed to lead to studies of how difference should be represented and how knowledge about difference is created. While these discussions were taking place in some feminist literature, the 'women in science' literature had, in the main, neglected the interconnections of 'race', gender and colonialism as manifested in the sciences until quite recently (Harding, 1993; Keller & Longino, 1996).

Some poststructuralist feminist analyses have been written recently that explore discourses of 'race' and gender in relation to the sciences (see Haraway, 1989, 1991; 1997; Harding, 1991, 1993, 1998; Merchant, 1996). For example, Vandana Shiva (1988) argues that Western scientific development has created 'maldevelopment' of the 'Third World' for which women have had to bear the burden. She draws parallels between the violence on nature in the 'Third World', led by white men in the destruction of the land, to the violence towards women who depend on nature for sustenance of their families. Furthermore, she argues that this violence is deeply embedded in Western science and development – inextricably linked through colonialism – and that as such science is seen as both Western and male (Shiva, 1988). While subscribing to white feminist views that science is deeply patriarchal, Shiva suggests in this article that it is also colonialist and 'racist'. Harding (1998:50) calls this "de-development". She argues that 'Third World' countries are seen as 'undeveloped' while the Western countries are 'advanced'. Scientific methods, knowledge and attitudes are claimed to direct the 'advancement' of Western countries and thus, should be central to improving the conditions of the poor in 'Third World' countries. Consequently, it is seen to be of benefit to everyone. Science is then pressed into service in the extraction of raw materials from these 'poor' communities to support the growth of Western cultures and no longer provide resources for the local people. By employing the labour of these 'Third World' communities, Western cultures are exploiting the local scientific and technological knowledge for their own benefit at the same time. As such, local industries and trade have been destroyed along with the native resources. This can lead to decimation of local populations. Shiva (1988) is suggesting that 'colonialism' has continued to work under the name of 'development' and that women are the hidden 'victims'. In other words, this is how science converts knowledge into power.

It seemed to me, and this is partly my argument, that these two strands in the literature on women and science – the 'women scientists' and the 'women in science' – were inter-related. This connection is that the women 'lived' the issues

through their bodies, their minds and their identities. Knowledge produced about 'women' or 'Māori' as objects of scientific study circulates back into institutional knowledge through practices and policies that may become identified as 'structural barriers' to participation. At the same time, the knowledge embedded in the 'structural barriers' – policies and practices - is constructed by the institutional knowledge about the subject, 'woman' or 'Māori', already operating and at levels that are difficult to detect. This is knowledge as "a form of power that circulates in a social field" (Sawicki, 1991:43). The 'power' of institutional knowledge is not only about an oppressive power acting directly on the individuals in a group but one that acts through them. Foucault (1980:89-90) argues power is:

> ... neither given, nor exchanged, nor recovered, but rather exercised, and that it only exists in action. [...] The role of political power is perpetually to reinscribe this relation through a form of unspoken warfare; to re-inscribe it in social institutions, in economic inequalities, in language, in the bodies themselves of each and everyone of us (Foucault, 1980:89-90).

The poststructural feminist writers were arguing that the discipline of science has a knowledge of and power over women. That is, it has disciplinary power. Very little work has focused on 'women scientists' as the sites for this circulation of power and knowledge. Of the studies that do address this, most are individual case studies of (white) woman scientists, such as Evelyn Fox Keller's (1983) work on Barbara McClintock. Little work exists on 'coloured' woman scientists or a group of 'coloured' women scientists in this vein. However, the poststructuralist accounts of 'woman and science' still left me with questions unanswered so I turned to postcolonial literature to help explicate discourses of 'race' and colonialism in this work, particularly through the body.

'Race', science and colonialism

For me, identifying as 'Māori' is as important as identifying as 'woman'. In other words, identifying as a 'Māori woman' is a matter of identification with what it means to be 'Māori' and 'woman', and which may involve multiple identifications. Diana Fuss discusses the relationship between identity and identification:

> ... identity is 'the Self that identifies itself'. Identification is the psychical mechanism that produces self-recognition. Identification inhabits, organises, instantiates identity. It operates as a mark of self-difference, opening up a space for the self to relate to itself as a self, a self that is perpetually other (Fuss, 1995:2).

The omission of 'race' and colonialism from much of the 'women and science' literature seemed glaringly obvious to me. For example, physical 'features' can make people visually conspicuous – what Fanon (1967:111) calls a "corporeal malediction" - and as such a category for analysis. However, Fanon points out that an analysis of the corporeal schema without situating it within a historico-racial schema is inadequate. For Fanon the historico-racial schema is the colonial encounter and how the relations between the colonized and colonisers is shaped in historically specific ways, including discourses of gender and 'race':

> Below the corporeal schema I had sketched a historico-racial schema. The elements that I used had been provided for me not by 'residual sensations and perceptions primarily of a tactile, vestibular, kinaesthetic, and visual character,' but by the other, the white man, who had woven me out of a thousand details, anecdotes, stories (Fanon, 1967:111).

The inadequacy of an analysis of just the corporeal lay in depersonalisation of the experience of the body. Fanon argues here that the 'body' is about its history as well as its corporeal nature.

Māori writers have commented on this as well. For example, John Rangihau (1975:165) writes that his "identity and commitment to Māori things is the result of history and traditions". However, he also relates stories of the difficulty he had in getting accommodation in hotels in some towns because he was 'Māori' – that is, carrying the bodily markings that identify him as such. While Rangihau's upbringing provided him with his Māori identity that did not stop others identifying him by his 'corporeal schema'. This suggests that there is no neat boundary between the two identities just as there is no separation between 'woman' and 'Māori'. Both Fanon and Rangihau are suggesting that identifications are more than just the 'visual' or 'reasoned' relations. Fuss (1995:2) argues that identifications are:

> ... erotic, intellectual, and emotional. They delight, fascinate, puzzle, confuse, unnerve, and sometimes terrify. They form the most intimate and yet most elusive part of our unconscious lives.

The refusal of hotel accommodation to John Rangihau, who was working for the government at the time, could not be seen as being based on 'reason' alone. At the same time, the label 'Māori' is very contestable. John Rangihau (1975:174) argues 'Māori' was a label given to the 'Natives' of Aotearoa New Zealand by the colonial settlers:

> ... Māoritanga is a term coined by the Pākehā to bring the tribes together. Because if you can't divide and rule, then for tribal people all you can do is unite them and rule. Because then they lose everything by losing their own tribal histories and traditions that give them their identity.

This suggests to me that the term 'Māori' had colonial origins – a historico-racial schema – and that that schema needed to include the 'unconscious'.

Literature on 'race' and science raised questions regarding the 'coloured' body, a history of colonialism, and the 'unconscious'. For example, Stephen Jay Gould (1993) argued that the beliefs of Enlightenment scientists helped shape their research on race differences. 'Race' became an object of study in science because scientists were focusing on physical difference, such as head sizes and jaw shapes, and the 'found' differences confirmed the idea of 'races'. In New Zealand Māori head shape and size was measured and they were labelled as being "Turanian" and belonged to the fifth race "Malays" (Colenso, 1865). Furthermore, fifty years after biologists and anthropologists have suggested that 'race' is no longer a useful scientific concept, some feminist science writers argue the idea continues to affect us today (see for example, Harding, 1993; Haraway, 1997). Sandra Harding (1993:11-12) argues that 'race' is still used in three ways. First it is used to refer to individuals where observable 'difference', such as skin colouring or facial features, appears as a characteristic of groups of people. Secondly, societal and institutional structures, such as in South Africa's former apartheid regime were built on such 'racial' classifications. And lastly, it appears as a meaning system in language where 'black', 'brown', 'red', 'yellow' and 'dark' signify evil, ignorance, danger and pollution, and 'white', 'fair' and 'light' signify good, knowledge, safety and purity (see for example, Douglas, 1966).

In turning to Edward Said's (1978) *Orientalism*, I began to find ways to historicize colonialism through the body and the 'unconscious', and to connect them to the present. Said showed that 'the Orient' was fabricated from an interrelated web of writings from literary, historical, scholarly, political, military and imperial administrative accounts. And furthermore, this demonstrated the deep complicity of academic forms of knowledge with institutions of power. Using Foucault's notion of discourse, Said argued:

> … that without examining Orientalism as a discourse one cannot possibly understand the enormously systematic discipline by which European culture was able to manage – and even produce – the Orient politically, sociologically, militarily, ideologically, scientifically, and imaginatively during the post-Enlightenment period (Said, 1978:3).

Oriental Studies were popular during the late eighteenth and early nineteenth century at the same time sciences, such as anthropology, philology and natural history, were emerging in Europe. Said's work in *Orientalism* (1978) resonated with Aotearoa New Zealand's experiences where the coinciding of colonialism and the Enlightenment science project is evident in our own history (see Salmond,

1997). This was the time New Zealand was being 'discovered' by 'the West', particularly Britain, and when writings and drawings began to appear. The Enlightenment ideal gave primacy to scientific reasoning or rationality as "science laid out the world for European exploration" (Salmond, 1997:32). Hence, the purpose of Enlightenment science – a taxonomic project - was to systematically label and categorize the 'world' and particularly the peoples found in the 'new lands'. One way this was done was by labeling people as belonging to different 'races' and then forming a hierarchy of races (McClintock, 1995). Internationally, the Age of Enlightenment coincided with imperial projects of 'discovering' new lands for settlement, exploiting resources, expanding the boundaries of the empire (both land and human empire) and the conquest of nature (Harding, 1993).

I was interested in how knowledge is produced in the way described by Said and the interrelationship between representation and 'reality'. The idea that knowledge produced in the past could continue to influence how people 'know' others today was of particular interest. Said argued that there were two levels to the knowledge of 'the Orient', and hence the 'oriental', that operated simultaneously.

> The distinction I am making is really between an almost unconscious (and certainly an untouchable) positivity, which I shall call *latent* Orientalism, and the various stated views about Oriental society, languages, literatures, history, sociology, and so forth, which I shall call *manifest* Orientalism. Whatever change occurs in knowledge of the Orient is found almost exclusively in manifest Orientalism; the unanimity, stability, and durability of latent Orientalism are more or less constant (Said, 1978:206, original emphasis).

I found I could begin to connect the ideas in Said's work to my personal questions on how I can be 'known' today. One answer lay in academic institutions, libraries, museums and art galleries around the world that still carry objects that reflect 'Māori' and objectify Māori as objects of study. However, another answer lay in Said's 'latent' Orientalism. This is how Māori could be 'known' as 'lazy', 'immature', 'cunning', 'liar', and so forth. So if this is right, how might the link between these two 'levels' be made? What knowledge of 'Māori women' has been discursively produced in the past? And is that knowledge used to 'know' Māori women now? And if so, in what ways might Māori women be 'known'?

In Māori culture, to be known as 'Māori' is connected to your whakapapa. Whakapapa, often translated as genealogy, is about 'knowing where you come from' or 'knowing your existence' in two ways – by descent or inheritance, and the cultural practices and histories that belong to specific groups of people. First whakapapa encompasses the idea of 'kinship' or whom you are related to by 'blood'. Today we may conceptualize it as the 'passing on' of genetic material.

Māori use whakapapa to show connections between generations and tribal groupings through intermarriage highlighting Donna Haraway's (1997:233) comment "where race was, sex was also". Secondly, whakapapa is about a person's cultural and spiritual 'ancestry'. These are further connections and can include origins and explanations for "trees, birds, parts of the human body, words and speaking, the cosmos, the gods, karakia (prayers/incantations), the moon, the wind and stones" (Smith, 2000:45). Cultural values and practices such as history, waiata (songs), and mythology are also included. Spiritual ancestry is about the mana (prestige) of your tūpuna or ancestors – which is carried forward through the people. Whakapapa' books' found in families contain genealogies as well as family and tribal history, chants and songs and miscellaneous bits information (Salmond, 1997). When I went to interview one of the women in this study she brought to her office that day, where the interview took place, part of her whakapapa that included a photograph of her grandmother, her 'family tree' and some family papers. All this suggests that 'whakapapa' is inclusive of, but wider than, a discourse on corporeality. Knowing your ancestry in such a way is important to many Māori and is the topic of much Māori writing (see for example, Pere, 1988; Haami, 1993).

To unravel the term 'Māori', and the identity attached to it, requires the exploration of both science and whakapapa but not as autonomous entities or concepts. The sustained contact between Māori and Pākehā have led to an intermingling of ancestry and cultural history that have brought different interpretations to bear on the term Māori. For example, large numbers of people who identify as 'Māori' and 'Pākehā' have 'mixed biological ancestry'. However, only some of these 'mixed ancestry' people identify or get identified by others as 'Māori'. Significant numbers of families now have members who identify as either Māori or Pākehā, and sometimes both at the same or different times. The biography of Mihipeka Edwards (1990, 1992), a Māori woman growing up in the 1930s, highlights some of the issues. Mihipeka struggled throughout her early adult life to 'fit' into a Pākehā world – she 'looked' Māori but decided to disregard this, change her Māori name to an English one, and married a Pākehā man, in order to 'become' Pākehā. Diana Fuss states:

> ... identification is the detour through the other that defines a self. This detour through the other follows no pre-determined developmental path, nor does it travel outside history and culture. Identification names the entry of history and culture into the subject, a subject that must bear the traces of each and every encounter with the external world. [...] the subject is identification; the I is another. Subjectivity is the name we might give to the place of the other, to the place where I desire as another, to the place where I become the other (Fuss, 1995:2-3).

Mihipeka's identification was as 'Pākehā' – 'the other that defined the self'. Eventually Mihipeka locates her identification as Pākehā in our colonial history as she was made to "feel ashamed of my true self, made me hide, pretend to be someone I was not" (Edwards, 1992:188). However, Fuss argues that we are the act of identification – what we identify as – and that our subjectivity is in that which we identify. For example, some of the women in the thesis call themselves 'Māori women' while another sees herself as a "Pākehā with Māori ancestry". Furthermore, identities can change over time, in different contexts or even if you can be identified as being 'Māori' through 'markings'. Such combinations and family circumstances can be important in identity construction. In addition, differences in naming can only be as a result of the corporeal and cultural 'hybridity' that exists in the construction of contemporary colonial subjectivities in Aotearoa New Zealand. Whakapapa, then, is both a noun and a verb. This suggests whakapapa is not just a labeling of a biological 'map' but a also a condition of being.

Structuring the journey

This chapter builds from a personal journey of trying to ask questions of the literature I already 'knew' – science education, women and science, and 'race' and science. I began to 're-read' my experiences through bringing together 'literature fields' that seemed to be separate but strangely similar in some ways. For example, the women and science literature excluded 'race' while many 'race' theorists have been criticised for not including 'gender' as part of their analysis (see for example, Davies, 1994). While my interest in Māori women and science emerges from personal experiences, there are larger questions that need to be asked. For example, how do discourses of 'race' and 'gender' affect the constitution of Māori women's subjectivity today? Are Māori women, as argued by Foucault, caught in discourse or are they 'free' to construct their own identity? What does it mean for Māori women to be subjects of science (scientists) when they have been objects of science? Hence, this thesis investigates the relationship between Māori women and science. In particular, I am interested in Māori women scientists - how they identify themselves and how they may have been, and continue to be, identified by others. I ask the questions: In what ways have the discourses of 'race' and gender embedded in Enlightenment science at the time of colonising Aotearoa New Zealand contributed to the subject position 'Māori woman'? And do they continue to inform the subjectivities of Māori women scientists today? If so, in what ways?

This thesis consists of two sections. The first section explores Māori women as 'objects' of science. In this section, I explore how Māori women's object status came into being through texts produced by European explorers, scientists and artists that began with encounters between Māori and European through 'journeys of discovery' and the subsequent colonisation of New Zealand. In particular, I examine how the texts have contributed to constituting the subject positions of 'Māori woman' through the discourses of 'race' and gender. The second section of the thesis presents Māori women as 'subjects' of science. In particular I present interviews with Māori women scientists and explore their subjectivity, especially how they have 'managed' their identity as Māori women scientists in relation to their schooling and their work as scientists.

Chapter Two begins the first section and draws on poststructural theories of language to outline the use of deconstruction as the 'method' I employ to 'read' historical texts on Māori women. I then draw on Foucault's work on surveillance to show how the power of the 'gaze' is particularly important in constructing the subject position of Māori women in eighteenth and nineteenth century discourses of 'race' and 'gender'. I further argue that the work of postcolonial theorists, particularly Bhabha and Fanon, enables me to 're-read' Foucault with an ambivalence so that Māori women can be seen to occupy a space from which the 'gaze' of the colonizer can be 'returned'. **Chapter Three** deconstructs the Enlightenment science discourses of 'race' that were brought to New Zealand. I demonstrate that Māori woman as an 'object' of science knowledge is a product of this particular discursive enterprise and not an independent pre-given object where scientists make 'discoveries'. I explore recurring themes in texts to argue that discourses of 'Māori woman' were deeply imbued with notions of degeneracy and progress, that were associated with Christian ideals, then became part of Māori women's 'character'. **Chapter Four** examines scientific discourses of 'gender' and argues that Māori women came to be interpreted through the Judaeo-Christian ideal of womanhood held by the nineteenth century 'scientists'. I demonstrate that discourses of 'race' and 'gender' come into existence through each other and often revolved around metaphors of sexual difference. Furthermore, Māori culture was also reconfigured around Christian views of women so Māori women's roles came to be marginalized and devalued.

Chapter Five explores the notion of subjectivity through the use of interviews. I argue that while the poststructuralist fragmented subject enables 'multiple' positions for Māori women, it is based on a 'white' subjectivity. For Māori

women, who start 'fragmented' through discourses of 'race' and 'gender', the fragmented subject is something to be overcome. Whilst treating interview transcripts as 'text' to be 'read', I examine the use of interpellation in this project and draw parallels with Māori women's cultural role of karanga (calling). **Chapter Six** interpret the journeys of the Māori women scientists through their schooling. In particular, and through the presentation of the Māori women scientist's personal narratives, I will show how schooling becomes a site of identity formation through repeated acts of 'norming'. I argue that the Māori girls found a contradiction as 'bright, Māori girls' that required them to 'expel' parts of their identities in order for them fit the dominant discourses and achieve academic success. **Chapter Seven** addresses, through further interview data, how the Māori women scientists have continued to be positioned in multiple and contradictory ways in their workplaces. I argue that the women are discursively positioned such that they are required to continue to 'expel' their Māori woman status in order to identify as 'scientists'. Furthermore, I argue that the expulsion of these qualities suggests that 'Māori woman scientist' is not available as a coherent form of subjectivity. **Chapter Eight** explores the links between Sections A and B - the object 'Māori woman' and the subject 'Māori woman scientist' -through discourses of 'race', 'gender' and 'science'. In addition, I assess my theoretical tools in relation to the argument of the thesis.

SECTION A

BROWN BODIES

AND

WHITE COATS

CHAPTER TWO

Learning 'how to read'

J. MacMillan Brown (1907:65) called New Zealand "the palimpsest or many-times-rewritten record of the prehistoric history of the Pacific". He argued that many immigrant groups had settled New Zealand and as each new dominating migrant group became established, they rewrote the history of the land to reflect their own customs. However, as they did so they unwittingly absorbed or incorporated some of their predecessor's customs to form a 'hybrid' version. As a result 'traces' of the predecessor's customs remain in the rewritten record. While researching books on New Zealand in the British Library in London in 1995, I came across a text written in 1845 by a member of the Legislative Council of New Zealand, William Brown. The objective of the book was "to remove groundless fears [and] to diffuse correct notions as to the character and capabilities of these people (Māori)" (Brown, 1845:2). The copy I read had a short, handwritten note in pencil in the front of the book that stated, "No good for ethnography, picture of natives too rosy, obviously written for immigration purposes". The note was written to warn other 'ethnographic researchers' as to the 'truth' of the book. The implications are that this text is a fabrication - an over indulgence of Native character - too good to be true. My reading of it suggests that it was a means of discipline that is disciplining both unsuspecting researchers in the subject area and 'the Native' at the same time. I wished I had rubbed the note out in the William Brown text and created my own palimpsest. In terms of the research, I considered the inclusion of such books with all their markings and scripts as essential.

However, both books challenge the reader to read words not as self-evident but to read 'otherwise'. J. MacMillan Brown's book challenges us to read 'multiply' in the sense that any history of New Zealand contains other histories of previous dominant groups. In other words, there is more than one history contained in the meaning of the words if we know what we are looking for - the signposts. The note in William Brown's book challenges the reader to disregard the text on the page – it is not 'truth' - and to 'read' another 'hidden' text that disrupts the meaning of the written words on the page. Both these books show us that learning 'how to read' is not a matter of knowing what each of the words mean and then putting them together in order to comprehend what is read. 'Reading' is about

relating words forward and backward in sentences, paragraphs, chapters or even different texts – to be taken in the context of other 'events'. Foucault argues that the book is caught up in a system of references to other books, texts and sentences being "a node within a network ... [and] constructs itself, only on the basis of a complex field of discourse" (Foucault, 1972:23). In addition to words, we bring with us pictures of material objects or we can make up images from the descriptions we perceive in the text. Learning to read, like reading to learn, is complex.

This chapter discusses the theories I used to 'read' the texts of the imperial archives. In the next section I outline poststructural theories regarding language and text and then examine the 'method' of reading in poststructural theory – deconstruction – and show how this is applied to archival material. In the third section I elaborate on how Foucault's work on surveillance, disciplinary power and discourse is used to read texts. And lastly, I examine how postcolonial theorists extended Foucault's ideas to create colonial and postcolonial discourse analysis.

Language, signs and 'text'

Spivak (1996a:55) suggests that 'learning how to read' is not just about reading a book but learning to read 'the text of the world'. For Spivak, 'reading' extends far beyond books and writing to include all objects that exist and all forms of communication such as speech, film, pictures and actions. In other words, nothing is excluded from being able to be 'read', and nothing is excluded from being 'text'. The structure of this thesis raises some methodological questions about an overall approach that needs to be addressed such as 'what counts as 'literature?' and 'how do I 'read' the literature, or interpret the text, once I have decided?' For the purposes of this thesis, I have followed Said's approach in *Orientalism* where he writes:

> My analysis of the Orientalist text ... places emphasis on the evidence, which is by no means invisible, for such representations as *representations*, not as "natural" depictions of the Orient. This evidence is found just as prominently in the so-called truthful text (histories, philological analyses, political treatises) as in the avowedly artistic (i.e., openly imaginative) text (Said, 1978:21, original emphasis).

I included a wide range of 'texts' in what I chose to read from the archives – the words of scientists, scholars, artists, missionaries, traders, soldiers, politicians, judges, doctors, and colonial administrators and, sometimes, wives who accompanied their husbands to these shores - were all included. All were in New

Zealand during the nineteenth century; all were writing, talking, painting, photographing and thinking about it and had the access and means to write about it and have the work published. While I have included some of the most influential ethnographic and anthropological texts, my wider view of 'text' meant I could also include a wider variety of works such as the minutes of meetings of select committees on New Zealand; and material written for potential emigrants, or to document scientific 'discoveries', or for political purposes of persuasion, or as travel and adventure narratives. In addition, I have included paintings and postcards, poems and works of fiction. No one text is privileged over another. All these textual forms brought New Zealand into a sharper and a more extended focus throughout the nineteenth century.

'Text', as outlined above, is a term from poststructuralist theory that plays on a complexity of meaning with respect to language (see for example, Barrett, 1991; Spivak, 1988a; Weedon, 1987; Sarup, 1993). However, if we assume language is not self-evident, then how do we 'read' it? According to poststructuralist theory meaning is produced in language and "we know no world that is not organised by language" (Spivak, 1996a:55). In other words, 'knowledge' of our worlds is the language we use to express it. All systems of representations, as with 'texts', whether linguistic (for example, books and speech), visual (for example, painting, cinema, photography, and images), or kinaesthetic (for example, performance, dance, and music), are known as 'signs' (Hall, 1993; Grosz, 1989). Signs are made up of two things: a 'raw material' or 'signifier', such as sounds or a written image, and a 'signified' that is the meaning or concept that we attach to the 'raw material'. In this way, any object is capable of having meaning.

The relation between signifier and signified is the relation between the external world and an individual's identification with it, or the meaning an individual attaches to it. Furthermore, signs can be seen as 'representations' of the world where meanings involve a form of 'doubling' (Henriques, Hollway, Urwin, Venn & Walkerdine, 1984:98). First, there are the written or spoken words, or images - a printed page, a photograph, an object - that provide us with the kind of raw material for our senses. And secondly, there is the interpretation or understanding of this raw material – script marks, arrangements of colours, shapes - as 'meaning' something. For example, this suggests the meaning attached to the signifier 'Māori woman scientist' is reflected in the terms 'Māori', 'woman' and 'scientist'. Furthermore, the specificity of 'woman' is doubled - while the individual is 'real', she can also be constructed as wife, prostitute, mother or scientist, depending upon the field of knowledge, or the context, that surrounds 'woman'. The signifier

is always located in context, socially produced within language and subject to change because of the relational nature of signifier to signified (Derrida, 1976).

The concept of signification is very important to this thesis because it suggests that concepts or things become meaningful through cultural processes. This suggests that 'language', particularly that which we speak, is important. Spivak (1996a:55) states that language is something "we cannot possess, for we are operated by those languages as well". I am 'operated' by the only fluent language I have – one brought by the British colonials that is my 'native' tongue - I have not included Māori 'text' in my reading. My ability to speak only English may be "an act of delimitation" (Said, 1978:16). However, my main concern in this thesis is not with the representation of Māori women in Māori text but with their representation in English 'text' where "knowledge is what gets passed on silently, without comment, from one text to another ... what matters is that they are *there*, to be repeated, echoed, and re-echoed uncritically" (Said, 1978:116, original emphasis). In particular, it looks at how meanings of 'Māori woman' have been constructed in English 'text'. While 'New Zealand English' shows indications of having adapted to local needs and experiences, such as being an amalgam of English and Māori words, there is little doubt that English is the dominant language form. Ashcroft, Griffiths & Tiffin (1995) argue that there are two responses to the dominance of a colonising language – rejection and subversion. To me rejection of English is impractical, if not impossible. In recognising the heterogenous nature of our language experiences in Aotearoa New Zealand, I am more interested in exploring how English can be appropriated - a subversive strategy – while claiming it at the same time. The next section explores the 'method' by which I will examine the texts of the imperial archives.

Deconstruction

The 'method' of reading text in poststructuralist theory is referred to as deconstruction (Spivak, 1988, 1990). In deconstruction I found two useful guiding ideas for this thesis. The first is the idea of 'trace' (Derrida, 1976) that centres on a history of words or ideas, similar to Foucault's genealogy. This is particularly important in this study in relation to connecting the signifier 'Māori woman' in the historical text to the subjectivities of the contemporary Māori women scientists I interviewed. Secondly, I am interested in the idea of 'absence'. Absence is used in deconstruction to signify 'something missing' or omissions, and also how one can 'read' what I term a 'presence in an absence'.

Spivak (1990:133) states that deconstruction is "more of a way of looking than a programme for doing: a way of looking at the way we do things so that this way of looking becomes its doing". She explains it thus:

> If in the process of deciphering a text in the traditional way we come across a word that seems to harbour an unresolvable contradiction, and by virtue of being one word is made sometimes to work in one way and sometimes in another and thus is made to point away from the absence of a unified meaning, we shall catch at that word. (Spivak, 1976:lxxvii)

In other words, Spivak is suggesting that deconstruction fixes on small things, such as words, as places to ask questions. The questions, she suggests, are related to an absence of one meaning – an ambiguity. Deconstruction is starting with a question resulting from a misunderstanding or a 'misreading'. Said highlights the culturally produced character of thought and perception when he states:

> .... to read texts from the metropolitan centre and from the peripheries contrapuntally, according neither the privilege of 'objectivity' to 'our side' nor the encumbrance of 'subjectivity' to 'theirs'. The question is a matter of knowing *how* to read, as the deconstructors say, and not detaching this from the issue of knowing *what* to read. Texts are not finished objects. They are ... notations and cultural practices. And texts create not only their own precedents ... but their successors. (Said, 1993:312, original emphasis)

Said suggests that texts should be read through a form of 'double reading' that works in opposition. This includes authoritative texts that shape academic fields of study. While this does not mean that all texts are equal, it pushes the 'reader' to ask, 'How do these texts show their 'culture'? And what are the implications for the reader and the text – both the one being written and the other being read?' Both these authors are suggesting that deconstruction is a close reading of text and an interrogation of "the authority of the investigating subject" (Spivak, 1988:201).

The 'method' of deconstruction is to look at the underlying assumptions that make the 'natural' meaning possible and to displace the ideas that are useful and powerful. Poststructuralist writers have identified two main strategies that can be used to deconstruct or provide a series of very close readings of texts (Spivak, 1990; Grosz, 1989; Lather, 1991). First, it is important to constantly question the taken for granted assumptions such as questioning 'omissions', or how ideas came to be accepted as 'fact'. Deconstruction "is not an exposure of error, it is a vigilance about the fact that we are always obliged to produce truth" (Spivak, 1990:46). Questioning 'taken-for-granted' ideas is an attempt to unsettle meanings and keep them 'in play'. The second strategy is to look for the meanings 'under' the words written on the page. This has been referred to as latent or 'unseen' thought' that is at variance with conscious thought (Said, 1978). In his analysis of

Oriental Studies, Said (1978:205-206) argued that it is, at once, a discipline – the conscious body of 'scientific' knowledge - which he called 'manifest' Orientalism; and a site of dreams, images, fantasies, myths and obsessions for the Occidental – an unconscious desire - which he referred to as 'latent' Orientalism. Furthermore he argued that any changes that occur in the knowledge of the Orient over time is found almost exclusively in 'manifest' Orientalism, while latent Orientalism is more or less constant (Said, 1978:206).

This distinction, between conscious and unconscious thought, draws on the psychoanalytical work of Lacan. Lacan (1977) argues that the subject is irredeemably split into 'conscious' and 'unconscious' – the 'conscious' being a presence or knower while the 'unconscious' is the absence of knowing. For Lacan, the unconscious is about a desire for wholeness or identity (Sarup, 1993). Hence, the absence of knowing is the same as an absence of identity. Furthermore, Lacan suggests that language and the unconscious are related in that the 'unconscious' can be read like a text. I am interested in the idea that text can be seen as having an unconscious. Lacan's work suggests that the unconscious, while expressed through text and language, has no voice of its own. Hence, the way to read meanings 'under' the text is through the text - the silences, gaps, moments of indecision and errors that intervene in our consciousness. This has been referred to as a 'textual unconscious' – "a repressed materiality at work in all texts" (Grosz, 1989: 26).

With these understandings I included in my search a wide range of texts to interpret for linguistic and technical devices, such as metaphors, metonymy, irony, images and phrases that might carry unarticulated assumptions and unconscious meanings (Spivak, 1989; Grosz, 1989). I included a wide range of texts, from the traditional ethnographic and anthropological texts to images of Māori women in postcards and paintings. While many of the texts are historical representations of the time, others included a more 'imaginative' view of Māori women similar to that identified in Said's work *Orientalism* (Said, 1978). For example, Beets (1997) has analysed postcards of Māori women and argued that Māori women, particularly those with identifiably European features, were often posed as sexual objects. Nude paintings at the turn of the century when Victorian England women were covering their bodies, were acceptable to the viewing public if they were of 'exotic', Native women (see Figure 2.1) (Bell, 1980). Many of the paintings, along with Māori cultural artefacts, continue to hang in art galleries or in private

Figure 2.1   *Hinemoa* painted by Gottfried Lindauer in 1907 (Bell, 1980:210).

collections around the world. Such contradictions between the view of Māori women and Pākehā women by painters at the turn of the twentieth century does suggest they were thought of 'differently' – the Māori woman as a South Seas 'exotic' Native. The difference between Māori and Pākehā women with respect to being subjects of paintings at the turn of the century emphasizes the importance of context. In this case claims of 'woman' applying equally to Māori and Pākehā women carries with it unarticulated ideas of 'race'. However, as Ann McClintock (1995:17) reminds us in her work on colonial South Africa there are "overlapping and contradictory stories – of black and white working-class women, of white middle-class men and women and of black working-class and middle-class men and women". In a similar manner, the stories of Māori and Pākehā men and women in Aotearoa New Zealand have overlapping experiences and contradictory stories as well.

According to Grosz (1989:44) "the sign marks the absent presence". In other words, the signifier 'Māori woman' indicates the idea of 'Māori woman' but the actual Māori woman is not present. In addition, the meaning of 'Māori woman' can change according to context. For example, what it means to be a Māori

woman on a marae may be different from what it means to be a Māori woman in the workplace. Fixing the signifier 'Māori woman' as an object of knowledge, particularly in historical texts, is particularly difficult because of her absence in different ways. In 'recovering' women's stories or narratives from 'an absence' in the archives, Gayatri Spivak (1984) and Linda Tuhiwai Smith (1999a) suggest that methodology is important. Spivak (ibid) sought to fix the signifier 'the Third World woman' in the case of the Rani of Sirmur. The British deposed the Raja of Sirmur and the Rani was established as the immediate guardian of the minor King, her son. The British then proceeded to annex the land of Sirmur to secure trade routes and it is because of this that the Rani appears in the archives as an individual. First, she features among some financial transactions because she had to ask permission, upon the death of her husband, if she could give away some of her money. Her second appearance is when she declares her intention to be a sati, a legally sanctioned act of sacrifice brought about by burning herself upon the death of her husband. For most of her life the Rani is absent from the archives and she only emerges twice "because of the commercial/territorial interests of the East India Company" (Spivak, 1984:140). In both cases, she became an object of knowledge through her husband. The signifier – the Rani of Sirmur – marks the 'absent presence'.

Linda Tuhiwai Smith (1999a) suggests there are many stories in our archives – in writings, stories, and photographs. She uses as an example 'Mary' - 'a woman in the photograph' that she found hidden among some archived school records. Mary was "the first Māori woman headteacher but also was probably the first woman headteacher in New Zealand" (Smith, 1999a:62). However, Mary's story and significance to education in Aotearoa New Zealand seems to have been forgotten. Smith uses this story to remind us that it is difficult to extract only one story because we need to 'recognise' it among the archives and there is always the possibility of it being mistaken for another story. Secondly, like Spivak, she suggests the woman's story is not in the archives at all but that it is "partially in the fragmented pieces of historical material that [are] in different files of the archives … partially in the approach we take to research" (Smith, 1999a:63). Most importantly though is that parts of the stories are in our collective memories of people and in our genealogies or whakapapa. In other words, a way to carry out a historical study is to find connections. Spivak (1984) has referred to finding connections as "traces". Poststructuralist theory (see Grosz, 1989; Barrett, 1991) argues that meanings of sentences is not clear until the end of the sentence is reached, suggesting that all the words that have gone before contain traces of other words. Furthermore, the meanings of sentences can change through later

34

signifiers. All words or signs contain traces – likely reminders of what has gone before. The idea of 'trace' is important in trying to fix a signifier – such as Mary and the Rani – through historical records when they are absent. Textual deconstruction can be described as "unravelling the traces of meaning in one's text's operations" (Barrett, 1991:125).

Smith and Spivak's work remind us that history is the construction of representations of historical reality. Both women writers warn us against the uncritical use of the archives as a repository of "facts" when carrying out historical research, particularly in the literature. Encapsulated in these narratives were guidelines for my finding Māori women in the texts and how I might be able to 'read' both the appearances and the absences. When did Māori women feature in the text? What was the nature of their emergence? How are they constructed socially, historically, politically and geographically? And how does each of these constructions inform (or not) each other across time and space? I am not interested in analysing each individual writer or artist with respect to her or his ideas on 'race' and 'gender'. More particularly I am interested in how knowledge of Māori women has emerged in 'science' texts and the ways in which it has come together in a systematic way. In order to do this I turn to the work of Michel Foucault to examine his ideas of surveillance, power and discourse.

'Reading' through the eye of power

It has been noted that Foucault never focused on European imperialism in his work.

> Sometimes it seems as if the very brilliance of Foucault's analysis of the centuries of European imperialism produces a miniature version of that heterogenous phenomenon: management of space – but by doctors; development of administrations – but in asylums; considerations of the periphery – but in terms of the insane, prisoners and children. The clinic, the asylum, the prison, the university – all seem to screen allegories that foreclose a reading of the broader narratives of imperialism (Spivak, 1988:291).

So what can Foucault offer analyses of colonialism, and what are the implications for those of us in extending his work into colonial settings? The texts that I am interested in reading have been written as part of New Zealand's colonial history and, as colonialism involves issues of knowledge and power as indicated by Edward Said (1978), I have turned to the work of Foucault with regard to what I term 'reading through the eye of power'.

Within colonialism, authority is maintained by the 'colonizing force' through the administrative surveillance of 'the colonized' and through military force and intervention. Foucault (1977) argued that Jeremy Bentham's 'all-seeing gaze' of the Panopticon, in use at European correctional facilities in the seventeenth century, introduced a new mode of 'power' that could be exercised through a means of surveillance. Bentham's plan included a circular building, consisting of individual cells, and a central tower from which observation takes place. From the central tower each prisoner was subject to individual scrutiny and it enabled the supervisor to survey constantly and recognise anyone immediately (Foucault, 1977). Foucault states:

> ... you have a system of surveillance, which involves very little expense. There is no need for arms, physical violence, material constraints. Just a gaze. An inspecting gaze, a gaze which each individual under its weight will end by interiorising to the point that he is his own overseer, each individual thus exercising this surveillance over, and against, himself (Foucault, 1980:155).

The effect of the Panopticon was to assure "the automatic functioning of power ... permanent in its effects, even if it is discontinuous in its action" (Foucault, 1977:201). In the prison each inmate could not tell whether they were being observed or not and so began policing their own behaviour on the assumption that they could be seen all the time. As such, this form of surveillance served as a disciplinary measure. Hence, this 'panoptical' form of surveillance also acts as a form of discipline.

Under Bentham's structure power is exercised continuously and often invisibly. While colonialism is often thought of as the exercise of power in one direction – from the colonizer to the colonized – Foucault has challenged that with the idea that power has the ability to circulate. He argues power is:

> ... neither given, nor exchanged, nor recovered, but rather exercised, and that it only exists in action. [...] The role of political power is perpetually to reinscribe this relation through a form of unspoken warfare; to re-inscribe it in social institutions, in economic inequalities, in language, in the bodies themselves of each and everyone of us (Foucault, 1980:89-90).

This is particularly relevant to this thesis because of the coinciding of the Enlightenment and colonising projects because both projects were about power. In order to develop their power strategies, colonizing forces had to produce knowledge about the 'newly discovered' land and its peoples. Said (1978:94) writes:

> A text purporting to contain knowledge about something actual, and arising out of circumstances similar to the ones I have just described (academic disciplines), is not easily dismissed. Expertise is attributed to it. The authority of academics, institutions, and governments can accrue to it,

surrounding it with still greater prestige than its practical successes warrant. Most important, such texts can create not only knowledge but also the very reality they appear to describe. In time such knowledge and reality produce a tradition ... whose material presence or weight, not the originality of the author, is really responsible for the texts produced out of it.

This suggests that academic disciplines – such as science, anthropology, Oriental Studies – exercise power. The power is exercised through their ability to define, to name and 'to world' (Spivak, 1984). To have such knowledge of an object is to dominate it, to have authority over it. The history of New Zealand emerged in English and what could not be 'named' – the unintelligible Māori knowledge of New Zealand - became 'pre-history'. The 'natives' become spoken for. When this happens you become a "subject race, dominated by a race that knows them and what is good for them better than they could possibly know themselves" (Said, 1978:35).

The 'gaze' has had great importance among the techniques of power in colonial history. The Enlightenment project, based on 'mapping out' the world, required gazing through the 'lens' of scientific objectivity in order to name, classify and categorise Māori and the flora and fauna of New Zealand. For example, Māori bodies were observed, measured and described in order to produce 'factual' scientific material, such as Colenso's (1865) *On the Māori Races of New Zealand*. This 'gazing' creates a discipline (science) and at the same time it disciplines the body/native as to their place in a 'science of order'. Sometimes this 'gaze' was represented through photographs, paintings or drawings. For example, Figure 2.2 shows two Māori women and a child surrounded by 'civilising icons'. This is not an ethnographic representation of 'old ways' but one that suggests Māori undergoing the 'civilising' process. Dressed in European high-necked dresses, a rope-like cloak and smoking pipes the women are reduced to icons she wears and holds indicating they can be 'tamed'. Furthermore, the male child holding the gun 'protecting' the women suggests a discourse of male 'supremacy' over women. This postcard displays in its posing that Māori women are being subject to both colonization and patriarchal discourses - the 'double whammy' (Ashcroft, Griffiths & Tiffin, 1995). Foucault (1980) argued that disciplinary power is an invisible power located in the sciences, particularly the human sciences, and depends on normalisation not authoritarianism as in sovereign power. Invisible power located in the 'science' disciplines 'governs' through normalisation.
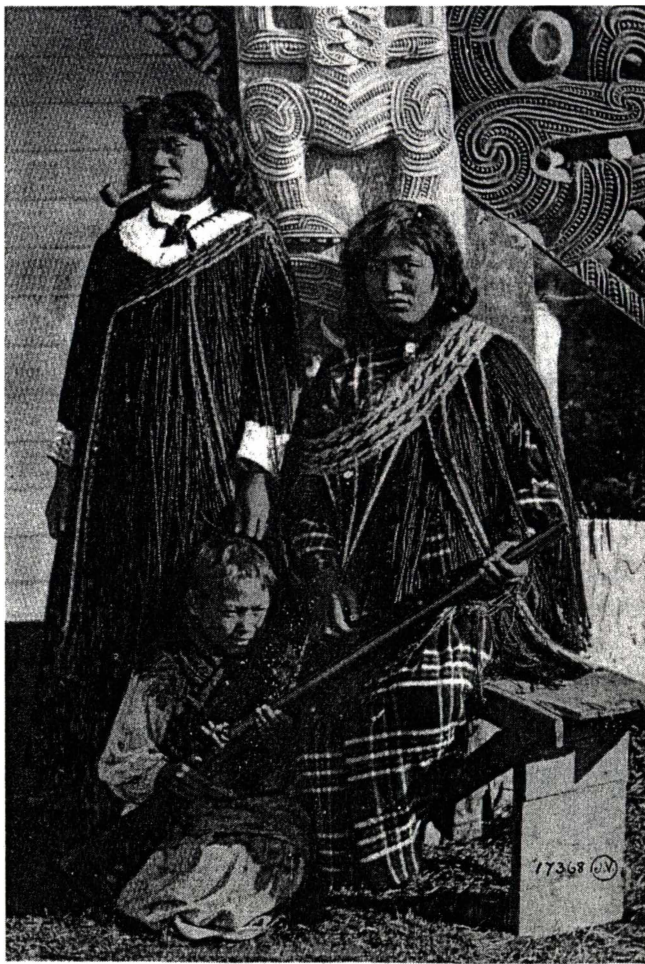
A Group of Maoris, N.Z.

Figure 2.2   Courtesy of the University of Waikato Library (New Zealand Collection).

The power of normalization is in getting the colonized to accept the colonizer's culture as rational or 'normal'.

> Like surveillance and with it, normalization becomes one of the great instruments of power ... the power of normalization imposes homogeneity; but it individualizes by making it possible to measure gaps, to determine levels, to fix specialities, and to render the differences useful by fitting them one to another. It is easy to understand how the power of the norm functions within a system of formal equality, since within a homogeneity that is the rule, the norm introduces, as a useful imperative and as a result of measurement, all the shading of individual differences. (Foucault, 1977:184)

The education of the 'colonised' is often used as the 'technology' of normalisation. For example, the early establishment of church mission schools and a national schooling system for Māori established prior to one for the settler's children suggests that Māori were seen as being subjects to 'educate'. However, the importation of an English curriculum taught through the medium of English, while Māori language was 'banned', suggests the purpose was to produce a

culturally and linguistically homogeneous English New Zealand. Missionary wives, and later the church boarding school 'mothers', taught Māori girls 'homemaking' skills, such as hygiene, looking after families and children, cooking and sewing – all skills of making a good 'wife' in the British sense (Fry, 1985; Simon & Smith, 2001). These domestic skills were very much embedded in English cultural ways as opposed to what Māori women did at the time. This can be seen as the text 'entering the body' through syllabus content and learning the lessons of the 'master'. Education was being used to develop 'customary practice' or norms based on English authority.

Foucault (1980) argued that institutions and their practices, such as the education system and the science research institutes pertinent to this thesis, are located in and structured by a particular 'discursive field', which consists of competing and contradictory discourses with varying degrees of influence or power. Hence, he focused on how some discourses have shaped and created meaning systems that have gained the status of 'truth' whilst other alternate discourses are marginalised and subjugated. For example, the insertion of the discourse of a supreme male God in Māori cultural understandings of the creation of the world, and suggesting that it came from knowledge that women were 'forbidden' to know, marginalized Māori women's roles. The alternative discourses of creation that provided a higher profile to Māori women then got relegated to the realm of 'mythology'. This illustrates how power is related to discourse.

> ... there are manifold relations of power which permeate, characterise, and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse (Foucault, 1980:93).

In other words, knowledge contained in discourse enables power to be exercised. For example, it has been argued that since Māori women can not whaikorero, or give speeches, in Māori society at ceremonies held on the marae they have been subjugated in Māori society in a similar pattern to Pākehā women in Victorian times - being limited to the domestic sphere (see for example, Heuer, 1972; Fry, 1985). This interpretation has been contested by Pere (1988) arguing that with the exception of slaves her Māori female forebears were never regarded as property and they retained their own names and identities upon marriage. This meant that women inherited land which did not revert to their husbands upon marriage (Ballara, 1993).

Hence, while Foucault's work is useful in the construction of 'regimes of truth' and to 'read' how Māori women are positioned in the texts, he has been criticized

by a number of theorists as being too totalising or deterministic (Bhabha, 1994; Spivak, 1988; Young, 1995a). The main criticism of Foucault, relevant to this thesis, is the playing down of the role of the individual and, thus, individual agency and resistance as a result of acts of will. According to Foucault, there is no subject position outside discourse.

> If a proposition, a sentence, a group of signs can be called 'statement', it is not therefore because, one day, someone happened to speak them or put them into some concrete form of writing; it is because the position of the subject can be assigned. To describe a formulation *qua* statement does not consist in analysing relations between the author and what he says (or wanted to say, or said without wanting to); but in determining what position can and must be occupied by an individual if he is to be the subject of it. (Foucault, 1972:95-96)

In this quotation Foucault argues that the positioning of the subject is implicit in the statement – a position to be taken up or 'assigned'. Spivak (1988:243) refers to this 'subject position' as an " 'I'-slot". At the same time the 'I"-slot is itself a sign in that it may signify different subject positions. For example, when we 'engage' with a 'text' there are several subject positions in relation to that text we can take up. As I read the texts of the eighteenth and nineteenth century 'scientists' on Māori women I can read as a doctoral student, a Māori woman, a science teacher, and so on. In addition, other people will read them from other positions – author, historian, scientist, and so forth.

Foucault argues that these positions are already 'assigned' in the text. In other words, the relation between the text and social reality is assigned through discourse. Such is the process of deconstruction in that "you can never arrive at a final signified which is not a signifier in itself" (Sarup, 1993:33). However, this breaking apart and reattaching between signifiers and signified is the basis of 'multiple subjectivities'. Postcolonial discourse theory, to which I now turn, is the exploiting of any ambivalence of the subject position in discourse. The idea of there being different positions 'available' to be taken up at any one time suggests that positions are not 'fixed' but are unstable or shifting. With this understanding discourse is productive of "identity" – that is, the process of subjectivation is, at the same time, the discursive production of identities (Butler, 1997:85). It is to the construction of the colonial subject in discourse that I now turn. In particular I am concerned with the introduction of psychoanalytic categories into Foucault's schema by postcolonial theorists.

Reading a returning 'gaze'

Bhabha (1994) argues that the construction and representation of the 'colonized' in discourse is not straightforward. Instead, he argues that the colonial subject is not only an object of surveillance but also an object of 'psychoanalytic' categories, such as paranoia and fantasy, on the part of the colonizer. This introduces a 'psychoanalytic' means of reading text.

> In order to understand the productivity of colonial power it is crucial to construct its regime of truth, not to subject its representations to a normalizing judgement. Only then does it become possible to understand the *productive* ambivalence of the object of colonial discourse – that 'otherness' which is at once an object of desire and derision, an articulation of difference contained within the fantasy of origin and identity. What such a reading reveals are the boundaries of colonial discourse and it enables a transgression of these limits from the space of that otherness.
> The construction of the colonial subject in discourse, and the exercise of colonial power through discourse, demands an articulation of forms of difference – racial and sexual (Bhabha, 1994:67).

Here Bhabha argues for an analysis of the colonial subject based on 'difference' that is articulated through discourses on the body, particularly racial and sexual. Bhabha has identified these as visual 'markings', and hence places of difference or 'splitting' of the subject. Furthermore, he argues that this difference creates a 'space' where a singular identity becomes impossible, as does a singular source of origin. In other words, the 'space' created by this discourse becomes a political place to 're-read' Foucault's work, particularly on discourse. This argument forms the basis of colonial discourse, which he described as:

> ... an apparatus that turns on the recognition and disavowal of racial/cultural/ historical differences. Its predominant strategic function is the creation of a space for a 'subject peoples' through the production of knowledges in terms of which surveillance is exercised and a complex form of pleasure/unpleasure is incited. It seeks authorization for its strategies by the production of knowledges of colonizer and colonized which are stereotypical but antithetically evaluated. ... colonial discourse produces the colonized as a social reality which is at once an 'other' and yet entirely knowable and visible. (Bhabha, 1994:70-71)

Bhabha argues that 'seeing' and 'being seen', familiar in Foucault's work on surveillance, requires a 'psychoanalytic' reading as well as a discursive one.

Frantz Fanon (1967), drawing on his own personal history as Antillean born, educated in France, and a psychiatrist in Algeria, explores the notion of identification and suggests that it can only be understood when placed within a history of colonialism. Fanon focuses on the 'Black subject' and the psychological structure that he claims are the result of the 'psychical violence' of colonial

domination and relates this to colonial history. According to Fanon (1967:110), the Black man is subjugated to the White man through a process of racial 'othering': "for not only must the black man be black; he must be black in relation to the white man". This suggests the Black man is the 'body' of racial difference within colonial representation and secondly, that he is the repository of the white man's repressed fantasies (Fuss, 1995). Furthermore, racial 'othering' suggests that there is (at least) two black men in every 'Black man' - a white man's version of the 'black man' and a black man's version of the 'black man'. Fanon claims that this power-knowledge system upholds colonialism through placing an Other that is other to the Black man.

Fanon's theory of the Black man is that 'colonial subjects' include both colonizers and colonized peoples. Hence, both Pākehā and Māori can be seen to have 'colonized subjectivities'. However while these subjectivities are interactively constructed as implied by Fanon above, they are not the same nor are the subjectivities of men and women in these groups the same. 'Third World' women writers have argued that white feminist theorists have either excluded them or constructed 'Third World woman' as a monolithic subject in the past (hooks, 1984; Mohanty, 1991). Māori men and women have written of similar problems surrounding 'Māori' (Rangihau, 1975; Smith, 1991). While Māori women are not "Third World women" or "Black women" or "women of colour", at the same time, we share with them some of the signs and effects of being constituted 'Other' within a colonial apparatus. There are places in our history where one cannot study Māori women without discussing British involvement with 'other' peoples. For example, the discussion of the representations of Māori women in historical texts cannot be done without also studying how colonial Britain represented Pākehā women in colonial history. At the time of colonisation Pākehā women were primarily defined by their reproductive or sexual functions. While they were in subservient roles to Pākehā men, middle-class Pākehā women were also essential to the business of colonisation as homemakers, upholders of moral values and social purity, and agents of civilisation (see Brookes, MacDonald & Tennant, 1992). Pākehā women held very ambiguous roles in the process of colonisation.

Following from Fanon and Foucault, Bhabha (1994:76) argues that the colonial subject can only be seen as the effect of productive power if surveillance of colonial power functions both as 'pleasure' and 'disciplinary'. The pleasure in 'seeing' is a site/sight of fantasy and desire – colonial desire. The power in 'being seen' is a site/sight of subjection and power. Bhabha (1994) theorizes

42

contemporary colonial subjectivity through the concepts of mimicry, ambivalence and hybridity. For Bhabha, the Anglicisation of India came from Indians copying the English - the intermediaries of the empire. He identified them in positions such as teachers, soldiers, bureaucrats and cultural interpreters. In arguing that one of the functions of colonialism was to produce 'copies' of the 'original', Bhabha goes on to explore 'mimicry as menace'. Instead of 'the copy' reassuring the colonizer of his primary status, the colonial mimic transforms the original so that it is something other than it was before, "a subject of difference that is almost the same, but not quite" (Bhabha, 1994:86). That is, in the deconstructive move of inversion (the copy) and displacement (not quite the same), a 'hybrid' version is produced. The hybrid is said to be 'in excess' of the original.

The hybrid is a useful term for this thesis as it connects the nineteenth century use of the word with Bhabha's use today for contemporary colonial subjectivity (Young, 1995b). The word 'hybrid' has been developed from its biological and botanical origins. The *Chambers Twentieth Century Dictionary* defines it as 'an organism which is the offspring of a union between different races, species, genera, varieties: a mongrel: a word formed of elements from different languages'. In the nineteenth century hybrid was used to refer to a physiological phenomenon and in the twentieth century it is being used to describe both a physiological phenomenon as well as a cultural one. Hybridity, in the discourse of physiology, rests on notions of 'race' and sexual desire, and was used to question the fertility of the hybrid as this report from G.S. Cooper, a Resident Magistrate on his return to England, in 1868 indicates.

> ... Māori women married to white men generally have families, many of them large ones. And yet it is found that the offspring of these unions are of themselves unfruitful as a rule, whether united to Māori or European mates. If I am not mistaken the same result has been observed in other parts of the world where what the Americans call "miscegenation" between races of markedly distinct types has been attempted. (Cooper, 1868-69:177)

While cultural factors determined the hybrid's physiological status, the use of the term hybridity today suggests questions on the relation between contemporary thinking and racial formulations of the past. Bhabha (1994:111) argues the 'hybrid form' unsettles notions of authority in colonialism through being a "mutation". As a 'mutation' it appears to reinforce the power of the original while at the same time, by being its mimic, it undermines the original. Bhabha (1994:111) defines the hybrid as " ... a partial and double force that is more than mimetic but less than the symbolic, that disturbs the visibility of the colonial presence and makes the recognition of its authority problematic". Furthermore, he goes on to suggest that

the hybrid in this sense can only be produced among peoples with a colonial history.

> Hybridity is the sign of the productivity of colonial power, its shifting forces and fixities; it is the name for the strategic reversal of the process of domination through disavowal (that is, the production of discriminatory identities that secure the 'pure' and original identity of authority). Hybridity is the revaluation of the assumption of colonial identity through the repetition of discriminatory identity effects. (Bhabha, 1994:112)

In other words, the hybrid signals "a mishmash of signification that muddies the teleological route of meaning and knowledge in a Western framework" (Mohanram, 1999:192). The authority of the original is undermined by the hybrid in two ways, first, through the difference of the copy from the original and secondly, through the hybrid gazing back at the identity of the original - "turning the gaze of the discriminated back upon the eye of power" (Bhabha, 1994:112). Bhabha claims this produces an ambivalent space because the double evaluative vision – looking at each other - unsettles any singular authority on which the colonizer's identity rests. He also claims it disturbs any hierarchical power sustained in the binary of 'colonized and colonizer'. As such, Bhabha claims the ambivalence of authority is a marker of resistance and subversion. The question one might ask is how to 'recognise' this resistance and subversion?

Bhabha (1994) claims that the recognition is in the strategies that turn the gaze back upon the eye of power. He suggests the colonial hybrid is the "articulation of the ambivalent space" (ibid:112). The discriminatory effects that enable the authorities to keep an eye on them may not be instantly recognisable any more so the colonial hybrid escapes surveillance or evades the eye. The Māori women in this study all have 'mixed heritage' – that is Māori and Pākehā – in the biological sense. The postcards and pictures in Chapter 4 show Māori women of 'mixed ancestry' – dusky versions of 'European' women - as were the preferences of the 'unseen' photographer or voyeur. However, in more contemporary times some Māori women are more ambiguously placed with the possibility of "a touch of the tar brush"[1], while others could 'pass' as Pākehā. Yet all identify as Māori women. Bhabha (1994:114) states, "Hybridity intervenes in the exercise of authority not merely to indicate the impossibility of its identity but to represent the unpredictability of its presence". The Māori women who 'pass' are no longer a representation of an essence. They are what Bhabha (1994:114-115) describes as "a partial presence, a (strategic) device in a specific colonial engagement".

---

[1] "A touch of the tarbrush" meant that you had Māori or 'coloured' ancestry.

This chapter covers the major theoretical ideas that guide how the texts from the imperial archives will be analysed in the next two chapters. The following chapter examines how discourses of 'Māori' have been constructed in eighteenth and early nineteenth century 'science' texts. Chapter Four will explore texts with relation to Enlightenment science's discourses of gender.

CHAPTER THREE

The scientific project of English civility

When Charles Darwin, the 'founding father' of evolutionary theory and author of *Origin of the Species*, visited New Zealand for a few days in December 1835 he was invited by the Reverend William Williams to spend Christmas at the mission station at Waimate in Northland. Darwin, in his travels from Paihia, where his ship *The Beagle* was anchored, to Waimate encountered a Māori chief with a full facial tattoo. He wrote in his journal at the time

> I never saw a more horrid and ferocious expression than this man had. It immediately struck me I had seen his likeness: it will be found in Retzch's outlines to Schiller's ballad of Fridolin, where two men are pushing Robert into the burning iron furnace. It is the man who has his arm on Robert's breast. *Physiognomy here spoke the truth*; this chief had been a notorious murderer, and was an arrant coward to boost (Darwin, 1959[1]:406, my emphasis).

Darwin suggests here that appearance can tell the truth about the character of a person, in this case a murderer and a coward. The 'gaze' of the scientist, or natural historian, is able to objectify the subject and 'discover the facts or truth'. Of particular interest is the relationship between visible characteristics and invisible properties (for example, sexual proclivities and psychological dispositions) that contribute to the assessments, in this case of 'race'. There is little that is positive in Darwin's journal entries on New Zealand and its inhabitants, except for the "Christian inhabitants" of Waimate and their work (Darwin, 1959:414). While Darwin's theory of evolution distances science from religious assumptions, he still believed Māori needed moral development, that is to live like the English middle-classes, and considered the "lesson of the missionary" (Darwin, 1959:409) as the means to achieve progress for Māori and the land. This brief narrative for this chapter illustrates the metaphysics of imperial science – that is, it connects discourses science, 'race' and Christianity.

---

[1] The quote is from journal extracts written at the time of his visit to New Zealand in 1835, however, the original date of this publication was around 1909, which is after Darwin's death.

In this and the following chapter, I deconstruct some key texts of eighteenth and nineteenth century 'science' in order to show how contact between Māori and European was represented in them during the early years of colonial settlement. This time line includes the political periods of decreasing 'surveillance' (Foucault, 1977) from Britain. The time period also represents the waning influence of social Darwinism, in which the taxonomic project applied to nature was also used in cultural history, particularly in the discourses of 'sex' and 'race' (Lévesque, 1986; Haraway, 1997). The purpose of this and the following chapter is to argue that the discursive formation of Māori women, as objects of scientific knowledge, is counter to, yet necessary for, the conception of science and its associated characteristics of objectivity, reason and mind. This chapter will argue that the knowledge of Māori women as 'object' at the time of colonization was in opposition to the discourse of science.

Enlightenment science, progress and degeneracy

The coinciding of the Enlightenment project, in which scientific reasoning and individualism were emphasized, with the imperial project, whose objective was to expand the empire, meant bringing the 'known' world into a single 'science of order' (Foucault, 1971). Influenced by Carl Linnaeus' taxonomic project of a 'chain of being', in which all living things could be systematically related, ordered, labeled and categorized, Captain James Cook's three voyages to New Zealand were scientific journeys of 'discovery' using this 'science of order' (Salmond, 1997). The 'discovery' was not only about the land being unknown to exist to European cartographers at the time, but also a discovery of objects in the 'dark' waiting to be 'found' and 'formed' by naming. The assumption was that by scientific account Aotearoa - people, land, flora and fauna - became 'real'. Foucault (1977:158) suggests a 'science of order' is a "well-determined set of discursive formations that have a number of describable relations between them" that rests on a taxonomy that produces a continuity of order in political, economic, cultural and scientific spheres. This section argues that a 'science of order' was brought to New Zealand and that this was premised on a binary of degeneracy and progress.

During the Age of Enlightenment, science laid the world out for European exploration. While geographical space was easily framed in standard grids and measured, plants, animals and people, were brought under other kinds of standardized categorization, that of taxonomy. Categorization is particularly evident in ethnographic accounts of Māori

during the nineteenth century. By the latter half of the nineteenth century there is an indication of a new approach to studying Māori. The books are profuse and we find the language of taxonomy emerging. A number of ethnographers had similar categories of description (Colenso, 1865; Treagar, 1904; Wood, 1868; Gudgeon, 1885), influenced largely by each other's work. For example, William Colenso's (1865) essay, *On the Māori Races of New Zealand,* was fairly typical of the era. His categories included a section on physiological traits, both individual and social. The individual category documented descriptions on skin colour, height, shape of body, head shape, hair, health, constitution, teeth, senses, puberty, number of children, natural selection, malformations, and diseases. The social descriptions included habits, food, cultivation, division of labour, architecture, canoe building, making things, ornaments, musical instruments, carvings, bartering, ordinary events (birth, betrothal, naming, tattooing, marriage, polygamy, divorce, death, exhumation), rank, property, treatment of diseases, acquired habits, fondness for children, games and diversions. The psychological categories included descriptions covering intellectual and moral faculties, natural propensities or characteristics, vices, aesthetics, acquirements, ideas of the principles of mechanics, colours, courtesy, etiquette, sentiments, feelings, taboo (tapu), credulity (dreams, omens, ghosts, sorcery, etc), religion and death. In addition to these, other common categories included philology (Colenso, 1865; Treagar, 1885), paleontology (Colenso, 1865) and modern history (Colenso, 1865; Treagar, 1904). Such categories did not only cover empirical science but also Māori cultural and political realms.

The typology used was extremely similar to other books written on other 'newly discovered races', such as Wood's two volume *The Natural History of Man; being an Account of the Manners and Customs of the Uncivilised Races of Men* (1868), so as to suggest that an agreement had been reached between European 'scientists' on the problems, the appropriate paradigms for the research and its results. In other words, the apparatus serving the scrutiny of the 'uncivilized races' was part of the scene in Aotearoa New Zealand. The establishment of local Philosophical Societies in New Zealand was a way information on Māori could be disseminated. From 1868 the *Transactions and Proceedings of the New Zealand Institute,* the official publication of the country's principal science institute, provided an outlet for scientific writings, supplemented by papers published by the Colonial Laboratory since 1866 (Strachan, 1984). In addition, many of the 'scientists' collected artifacts to transport back to Europe. The organization of science taking place in the nineteenth century was rigorous and all encompassing.

The analyzing and categorization of the 'new' culture by the visitors, and eventually those very early missionaries and ethnographers who stayed, was not just recording information but the beginnings of incorporating Māori into the knowledge of the colonizer. In other words, these 'scientific' categorizations brought Māori under intellectual control. Since the late eighteenth century taxonomy, along with morality and art, had become institutionalized and separated from everyday life under the control of experts. The books in the British Library – the British Imperial Archives – along with other libraries, art galleries and museums, began to form a type of institutionalized intellectual authority over Māori within Western culture. Said (1978) states that such authority:

> ... is formed, irradiated, disseminated; it is instrumental, it is persuasive; it has status, it establishes cannons of taste and value; it is virtually indistinguishable from certain ideas it dignifies as true, and from traditions, perceptions, and judgements it forms, transmits, reproduces.

This is evident in the books found in the British Library on Māori as many of the books either cited the other authors, or the passages were copied directly from other books. For this reason alone it is important for this thesis that the authority in these texts is questioned.

Imperialism was a scientific, as well as political, process. Science was understood as helping to expand the boundaries of the empire and this expansion was achieved by the conquest of nature. Scientific reason, theorized through the discourses of progress and humanism, was made to seem natural and right (Shohat & Stam, 1995). A number of feminists have researched early scientists and their writings for associations between woman, reason and nature (Lloyd, 1996; Haraway, 1988; Harding, 1985; Merchant, 1980; Schiebinger, 1994; Tiles, 1996). In particular, Francis Bacon has been identified as locating the primary focus of science in man's ability to dominate and control 'Mother' nature. That man could control and dominate nature was a demonstration of 'his' superiority and was set apart from the rest of 'nature', which was designated as female. Man's superiority was based on his mastery of 'nature', including women, with his intellect. The visit to New Zealand by Captain James Cook on his second voyage was seen as bringing progress to a backward place, as evidenced by the journal comments of George Forster, the ship's scientist:

> The superiority of a state of civilization over that of barbarism could not be more clearly stated, than by the alterations and improvements we had made in this place. In the course of a few days, a small part of us had cleared away the wood from a surface of more than an acre, which fifty New Zealanders, with

their tools of stone, could not have performed in three months. [...] Already the polite arts began to flourish in this new settlement; the various tribes of animals and vegetables, which dwelt in the unfrequented woods, were imitated by an artist; and the romantic prospects of this shaggy country lived on the canvas in the glowing tints of nature, who was amazed to see herself so closely copied. Nor had science disdained to visit us in this solitary spot: an observatory arose in the centre of our works, filled with the most accurate instruments, where the attentive eye of the astronomer contemplated the motions of celestial bodies. The plants which clothed the ground, and the wonders of the animal creation, both in the forests and the seas, likewise attracted the notice of philosophers, whose time was devoted to mark their differences and uses. In a word, all around us we perceived the rise of arts, and the dawn of science, in a country which had hitherto lain plunged in one long night of ignorance and barbarism (Forster, as quoted in Salmond, 1997:63).

There are two ideas associated with progress in this short extract that are relevant to this section. First is the relationship between the discourses of progress and degeneracy and secondly, the intertwining of the discourses of progress with those of woman's sexuality.

Forster's description of progress is deeply infused with references to woman's sexuality. The passage with regards to the land is very sexual and romanticized when he speaks of 'her' clothing and the undoubtedly male philosopher's work. When this is juxtaposed with what has previously been described, one can only assume that superiority over and the taming of nature includes the taming of women. The discourse of progress assumes the 'discoverers' superiority to Māori - the 'discovered' peoples in their 'dark world'. Under the observer's measuring and gazing eye land clearance, cultivation, the 'introduction' of arts such as painting, and activities associated with science, such as looking at the skies, were all indicators of progress and stood in opposition to what the people and the land had represented before this time. In other words, progress is about the production of knowledge and particularly through the scientific observer's eye/I (Haraway, 1989:9). In the colonial journeys, this conception had implications for 'coloured' peoples who were relegated to 'nature', leaving intellect and culture to White men. In this sense, Māori and woman are both seen as part of 'nature' – gender and race are seen to be analogous which suggests 'race' can be used to describe 'gender' and vice versa. I return to this idea in the next chapter. Furthermore, the one long night of "ignorance and barbarism" suggests that the discourse of degeneration was firmly embedded in the idea of progress and complicit with the imperialist project. The idea of degeneration was necessary for the idea of progress as one could only measure progress by how far other portions of humanity have lagged behind.

51

Their respective supporters actively debated the two discursive positions. The discourse of progress incorporated Rousseau's 'noble savage' (Mama, 1995) - that meant 'progressionists' considered Māori could be lifted from their 'natural, savage' state of 'lost innocence' to become civilized through Judeo-Christian teachings. Mrs. D. D. Muter (1864:278-279), the wife of Lieutenant-Colonel Douglas Dunbar Muter of the 13th Light Infantry, in her book entitled *Travels and Adventures of an Officer's Wife in India, China and New Zealand*, sums up the position

> One section depicts the natives as the most intelligent race ever rescued from barbarism - brave and noble in their instincts, and Christian in religion. They consider it worth almost any sacrifice to elevate from a savage state to a high standard of civilisation one of the finest races with whom we have been brought in contact; and here is the chance. We may prove to the world that it is compatible with the interests of colonisation so to raise a heathen and benighted people, instead of crushing them out of existence to make way for ourselves.

The discourse of degeneracy became a pathological portrayal of Māori as being savage, subhuman, barbaric, violent and evil, and only worthy of pity or contempt. Subscribers to this discourse believed Māori were inherently mentally defective. 'Degenerationists' used the 'evil propensities' ascribed to Māori (for example, see Colenso, 1865), such as killing, cannibalism, and ungratefulness, to illustrate the degeneracy of those who could not be saved.

> The other section represent the Māori as a mere savage, rendered the more dangerous by a smattering of civilisation; as a people to whom conciliation means fear; crafty, insolent, and grasping; regarding war as an excitement, with little to lose by plunder, and much to gain. Both sections agree in regarding the Māori as brave, intelligent, and physically strong (Muter, 1864:278-279).

According to Mary Douglas (1966), in her work on pollution and taboo in 'primitive' societies, this debate was settled in favour of the 'progressionists'. However, what is most important here is not whether one side or the other 'won' but that the ideas that were common to both sides of the argument have continued to contribute to the forming of competing and contradictory depictions of Māori women.

What is often unspecified is that both 'progressionists' and 'degenerationists' found Māori to be uncivilized, primitive, backward and still generally inferior to Europeans. The difference between the two positions was about whether education and 'moral development' (mostly in the form of religion) could overcome these 'deficiencies' and to what extent. The purpose appears to focus on the degenerate aspects in order to show progression. Primitive peoples, such as Māori, were seen as pre-historic, that is, outside

the concept of history and time (McClintock, 1995). They were also portrayed as infantile, as the child represented the primitive form of human (Gilman, 1985). Both concepts were employed as degeneracy came to be associated with racial and sexual difference. The next section shows how the discourses of degeneracy and progression worked in New Zealand to show Māori women in states of racial (and sexual) regression.

Organizing images of racial difference

As shown in the last section, the discourses of progress and degeneracy were openly associated with racial difference but I argue here that they simultaneously rested on assumptions of sexual difference. This section explores the organizing images and tropes of the representation of 'Māori' as prehistoric, infantile and lacking intelligence. Central to the images of racial difference was the idea that 'natives' of the 'discovered' lands were not as 'advanced' as the European 'discoverers' and colonizers, as argued in the last section. McClintock (1995) argues that journeys of imperialism were seen as both progressing across the space of the globe and the empire but as moving backward in time. Conversely, the return journey was about historical progress to the apex, and most advanced state, of Enlightenment. In other words, geographical difference across space is figured as a historical difference across time - an exploration of the past. She has termed this idea "anachronistic space". Under this idea, the colonies were not seen as socially or geographically different from Europe, and equally valid in themselves, but as temporally different and irrevocably set back in history. The colonized society, both men and women, were projected as "prehistoric, atavistic and irrational, inherently out of place in the historical time of modernity" (McClintock, 1995:40) by racial scientists, such as Thomas Malthus, and eugenicists, such as Francis Galton (Selden, 1999). Such ideas were used when European came into contact with Māori in the eighteenth and nineteenth centuries.

Visible stigmata were often constructed to represent the historical anachronism of the degenerate classes. For example, the sexual organs of the women were seen as being primitive and responsible for 'primitive' sexual appetite (Stoler, 1995). For example, McClintock (1995) argues that Saartje Baartman (her original name has gone unrecorded) became the referent for the invention of the female body as anachronism. The supposedly excessive genitalia, represented as an excess of clitoral visibility and hence 'primitive' female sexual pleasure, were pathologized by the disciplinary gaze of

male medical science. In 1810 the exhibition of the body of Saartje Baartman, and particularly her genitalia, for a voyeuristic public became the referent for all primitive women in particular (see Gilman, 1985; Schiebinger, 1993; Mama, 1995). McClintock (1995:30) suggests that the implications for colonized peoples and women caught in this 'anachronistic space' is that they were seen to represent "the living embodiment of the archaic "primitive"". In addition to physical stigmata, psychological and social indicators could also 'mark' the site of being 'primitive' as seen explicitly in Sigmund Freud's *Totem and Taboo* on the psychology of race.

> Primitive man is known to us by the stages of development through which he has passed: that is, through the inanimate monuments and implements which he has left behind for us, through our knowledge of his art, religion and his attitude towards life, which we have received either directly or through the medium of legends, myths and fairy tales; and through the remnants of his ways of thinking that survive in our own manners and customs. Moreover, in a certain sense he is still our contemporary: there are people whom we still consider more closely related to primitive man than to ourselves, in whom we therefore recognize the direct descendants and representatives of earlier man. We can thus judge the so called savage and semi-savage races; their psychic life assumes a peculiar interest for us, for we can recognize their psychic life a well preserved, early stage of our own development (Freud, 1938:807).

It would appear that physical stigmata were a 'knowledge' of an entire peoples - the culture, the physiology, and the psychological make up of a person. The following are some of the metaphors used to explain racial difference in more specific ways. Many of them pivot around the metaphor of 'families' including the children and pet animals.

Racial Families

An example of how all these ideas came together can be seen in the visuals used to show this evolutionary progress encapsulated in the family 'Tree of Man' (see Figure 3.1). According to McClintock (1995) the Tree of Man visually carried three ideas that can be gained through panoptical time, or at a glance, that enable the reader the possibility of new meanings. First, she argues that the world's diverse and separate cultures, as shown on the branches of the tree, appear to the viewer as being united within a single grand narrative, represented by the tree itself. Secondly, human history is seen as a naturally teleological or going forward or upward, and natural in that a tree is used, with the European as the pinnacle of progress and civilization. Thirdly, a hierarchical structure of branching time and 'types' can be easily effected by the use of the tree's natural characteristic of branching. In other words, the tree affects an image of racial hierarchy and historical progress at the same time and presented as a 'fact' of nature. The tree metaphor enables links to be made between nature and culture as a

natural image of evolutionary human progress and read "natural" differences at a glance.

Figure 3.1 *Inventing progress: the racial family tree* (McClintock, 1995:38)

From the trees you can see how Māori were categorized according to the criteria used. As is evident from looking at the trees, the categorization is graded in a hierarchical manner which contests a simple binary division but suggests that the binaries were layered and interacted with each other to produce numerous possibilities. It is difficult to know how Māori may be placed in this order of science as while today we are categorized as Polynesians, physical anthropologist Johann Blumenbach suggested Māori were 'Malays' in the eighteenth century (Gascoigne, 1994). However, the point is not what we were but that on both trees of man, Māori, classified as Polynesians or

Malays, were seen as being high although not at the pinnacle. There is a strong suggestion from the 'trees' that 'brown' was not equivalent to 'black' in terms of racial types. This is borne out in a number of descriptions of Māori both in philology and biology. For example, Edward Tregear's (1885:104)) book *The Aryan Māori* claims to have been the first to apply the scientific method to the Māori language and "prove(n) the fellowship of the Polynesian with the races of Europe". Tregear, along with other writers of the time, tried to suggest that Māori language was related to Aryan languages (see also Hursthouse, 1857; Brown, 1907). The Reverend J. G. Wood, an anthropologist, in his two volume account called *The Natural History of Man; being an Account of the Manners and Customs of the Uncivilized Races of Men* (1868:106), speaks of a "fine race that is tall, powerful and well-made". In other words, there was much about Māori that was pleasing to the ethnographers and anthropologists as well as things that were not. Other 'family tree' visuals show a display from the animal to the European (Gould, 1981; McClintock, 1995) (see Figure 3.2). In Figure 3.2 a hierarchy is formed showing white people as being furthest away from apes, whereas 'coloured' peoples were closer, and black people were seen as being the next step up in the 'evolutionary chain' from the ape and, by implication, other animals. At a glance the 'reader' can see the familial progress of humanity from degenerative native child to adult white male. However, an alternate reading presents the possibility of racial decline from white fatherhood to a primordial black degeneracy. Young (1995b:107-108) argues the British were very aware of this latter discourse in their attempt to educate, and hence civilize, some races such as Māori. This could only be ultimately achieved through the 'mixing of the blood'. However, it was thought that while the purity of the 'white race' may decline through inter-racial sexual reproduction, there was a belief that eventually the 'non-white blood' would be so small it would amount to no real consequence. The 'hybrid' offspring, according to Bhabha (1994:114) is "irredeemably estranging [because] the difference of cultures can no longer be identified or evaluated as objects of epistemological or moral contemplation, cultural differences are not simply *there* to be seen or appropriated".

Of significance is the invisibility of women in the 'family tree of man'. As such they have been conceptualized recently as 'abject objects' (Kristeva, 1982; McClintock, 1995). That is, they are expelled from visible representation but are essential in the concept of 'family tree' and continue to haunt the constitutive boundaries or borders of our existence (Grosz, 1989). Women are simultaneously incorporated and expelled in

FIGURE 1.6 "THE FAMILY GROUP OF THE KATARRHINEN": INVENTING THE FAMILY OF MAN.
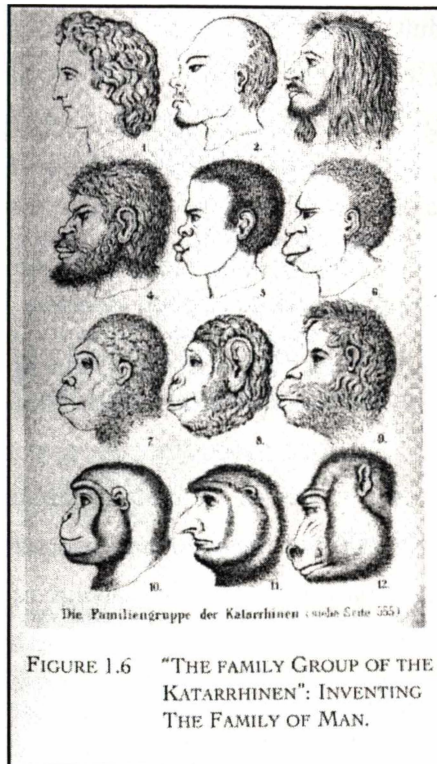
Figure 3.2 *The family group of the Katarrhinen* (McClintock, 1995:39)

the 'family tree' - no 'man' is born without women but women are not there. The 'family tree' is dependent on the absent presence of women. By being excluded from this 'tree' women have been denied entry to culture, or civilization, and relegated to the realm of nature. At the same time, their necessary incorporation into the concept makes them neither subject nor object – just abject. McClintock (1995) argues the 'family tree' image was very important in the study of racial science because it 'naturalized' three things. First it introduced the association of the 'savage' and the child. Secondly the image provided scientific racism with a gendered image for disseminating the idea of racial progress and to render women invisible. Thirdly, the association was made easily between 'lower races' and animals.

Gould (1981) argues that the ancestral lineage of the human species could be read off a child's stages of growth and development. That is, if we assume that the white male child was an atavistic throwback to a more primitive adult ancestor, he could be scientifically compared with other living races and groups to rank their level of evolutionary inferiority. This can be found in Freud's (1938:811) work on *Totem and Taboo* when he labeled "incest dread" as an infantile trait and associated it with colonized peoples, including Māori. 'Colonized peoples as children' imagery

57

legitimates the colonists 'adult' power over their children just like 'Mother Britain' presiding over her young colony. Charles Darwin (1999) also connected Māori with infantile traits and connecting it to animal traits – particularly apes.

> With young children sulkiness is shown by pouting ... here referred to [as] the protrusion of both lips into a tubular form.... This expression [...] is exhibited much more plainly during childhood, at least with Europeans, than during maturity. [...] From enquiries I have made in several large families, pouting does not seem very common with European children; but it prevails throughout the world, and must be both common and strongly marked with most savage races ... often with the New Zealanders. [Pouting] has sometimes [been] observed with men, and very frequently with the women of New Zealand (Darwin, 1999[2]: 228-29).

Darwin (1999:229-30) continues at length to discuss pouting as the retention of a "primordial habit or the occasional reversion to it" and compares it to young orangs and chimpanzees. He then suggests that it is stronger in 'savage races' than in Europeans.

> If then our semi-human progenitors protruded their lips when sulky or a little angered, in the same manner as do the existing anthropoid apes, it is not an anomalous that our children should exhibit a trace of the same expression, together with some tendency to utter a noise. ... Nor is it an anomalous fact that the children of savages should exhibit a stronger tendency to protrude their lips, when sulky, than the children of civilized Europeans; for the essence of savagery seems to consist in the retention of a primordial condition, and this occasionally holds good even with bodily peculiarities (Darwin, 1999:230).

The analogy between colonized people, infantilism and animism is vital as it projects the colonized as embodying an earlier stage of individual human, or broad cultural development, while at the same time occupying the border between 'human', or European, and animal. The colonized can be seen as the everlasting infancy of the non-perfectable races (Shohat & Stam, 1994; McClintock, 1995). At the same time 'savage races' are in the ambiguous position of being the physical object that separates Europeans' and animals and simultaneously the 'missing link' between them. This keeps the primate Order 'ordered'. What are achieved are a taxonomic and, therefore, a political order also (Haraway, 1989). Those occupying the borders, or the intermediates as Darwin (1871) referred to them, were anticipated to become extinct and hence the gap between Europeans and apes would increase.

Therefore images such as those in Figures 3.2 intervene at a level of subjectivity. The Negro is denied recognition as a human as he remains unnamed and secondly, there is an association between the Negro and animals that is not evident between the white man and the apes. The white figure is given a name - Apollo Belvidere – while the Negro

---

[2] First published in 1873.

58

and the young chimpanzee are categorized at the same level of labeling. As such, the white figure is 'human' while the Negro is an object of knowledge. Part of the purpose of the Negro is to indicate how far White men have developed in their civilization. Hence, the exaggerated features of the Negro in alignment with the chimpanzee is done deliberately. As Gould (1981) argues, it was done to give the impression that Negroes may even belong below the apes and were possibly not human. The suggestion of falling below the level of animals has also been made of Māori. Alfred Domett, a Premier of New Zealand and a leading educationalist at the time, made the suggestion in an epic poem he wrote called *Ranolf and Amohia* (1883:138)

> ... As night recedes long ere you see the sun,
> The most revolting vices of the race,
> ... - child-murderer and the feast
> That sinks the cannibal below the beast ...

Other strange suggestions in this area have also been made with respect to Māori women. William Brown (1851:43), a member of New Zealand's legislative council during its Crown colony period, wrote that Māori women suckled dogs and pigs like they would a child and writes that the New Zealanders (Māori) "show no warmth of attachment worthy of the name of friendship ... it is more common to perceive attachments between them and their dogs and pigs ...". Maggie Papakura (1986) has dismissed this idea because pigs are food and remove the tapu[3] (sacredness) of a person. Donna Haraway (1989) argues the focus of the discourse of primatology on the border between human (man) and animals has made the association a powerful and enduring image. The Great Chain of Being had long been offered as a tool for ordering all life forms with God ruling over the angels, humans, animals, plants and rocks, with each in their own 'place' in strict analogy with European social arrangements at the same time (Shohat & Stam, 1994).

Race 'types' and classifications

Evolutionary theory in the nineteenth century became embroiled in amassing measurements and using statistics in an attempt to become more authoritative in its attempt to place social ranking and social disability on a biological and scientific footing (Gould, 1981; McClintock, 1995). In believing the features of the face spelled out the character of the race, including intelligence, scientists amassed measurements including: the length and shape of the head; protrusion of the jaw; length of the forearm (the

---

[3] Tapu works in conjunction with another concept, noa. Both are part of formal, complex rituals and social controls of Māori culture and fully integrated with everyday life (Jackson, 1992). They are used to maintain social order and preserve the spiritual balance essential to the survival and well being of community.

characteristic of apes); under-developed calves; ear-lobes (a sign of sexual excess notable in prostitutes); straightness of hair; length of nasal cartilage; low foreheads; facial hair; and prehensile feet. For example, in New Zealand many descriptions of Māori included observations regarding noses large and flat, dark eyes, a variety of shapes of faces, teeth and an observation of Māori having less hair than Europeans - especially eyebrows and beards (Darwin, 1998). Māori head shape was very important.

> The head was well shaped, oval, with a fine forehead, and well developed cerebral regions. Sometimes the forehead assumed the Turanian type, giving almost a pyramidal appearance; and a few rare instances have been noticed of an approach to the peculiar Mongolian eyes and eyebrows (Colenso, 1865:5).

Such images endured and were picked up by painters.

Figure 3.3 *Head of a Māori girl*, charcoal drawing by Christopher Perkins in 1932
(Keith, 1976:17)

Figure 3.3 is a painting called *Head of a Māori Girl* painted by Christopher Perkins in 1932. Described as a conté (Keith, 1976), or a painting that tells a short story, it

accentuates the features Colenso mentions above. Other ethnographers and anthropologists had other classifications of Māori. According to Gascoigne (1994), Blumenbach advocated 4 main divisions of humankind: Caucasian (European), Mongolian (Asian), Ethiopian (African) and American - the last three groups being examples of degeneracy of the original Caucasian strand. Once the southern oceans had been explored Blumenbach decided to add a fifth and called it Malay (as cited in Gascoigne, 1994:152).

> Finally, the new southern world makes up the fifth ... Those who inhabit the Pacific Archipelago are divided again ... into two tribes. One made up of the Otaheitans, the New Zealanders, and the inhabitants of the Friendly Isles, the Society, Easter Island, and the Marquesas, men of elegant appearance and mild disposition; whereas the others who inhabit New Caledonia, Tanna, and the New Hebrides, are blacker, more curly, and in dispositions more distrustful and ferocious.

Gascoigne argues his evidence was sketchy at best using skulls and drawings, including many of New Zealanders, from Banks' collection on his trip on the *Endeavour* to help with his classification. Some typologies became very detailed when categorizations were based on 'mixture of blood'. Young (1995b:176) discusses that 'crosses' of peoples with various amounts of blood could be determined by using a variety of methods, such as visual stigmata and physical measurements, that "experienced observers" could detect. To the naked and untrained eye, half-castes, quarter castes and one-eighth bloods can be determined. This was not an uncommon assertion in New Zealand as well. James Buller (1878:170) refers to this typology quite 'matter-of-factly' stating that "the half-castes and quadroons are a fine breed [and] when they are educated, they appear to great advantage". Hence, the mixing of the blood between the races was related to an ability to be educated and civilized, as well as providing a basis for taxonomy.

Another way race was 'typed' was through language. For example, Edward Tregear (1885) wrote *The Aryan Māori*. Tregear (1885:104) claims to have applied the scientific method to the Māori language "to prove the fellowship of the Polynesian with the races of Europe". According to Tregear there were signs in the Māori language that indicated the genealogy of descending from the Aryan race "north of the Himalayan Range, on the high tableland toward tartary" (Tregear, 1885:2). Other signs in the native language of colonized peoples, according to Claude Lévi-Strauss (1962), included the lack of terms for expressing specific concepts, for example, tree or animal, even though the language contained all the words necessary for a detailed inventory of species and varieties. This 'lack' was used as evidence of the ineptitude of 'primitive

people' for abstract or rational thought. This has been exploited to prove the intellectual poverty of 'Savages' even though discourse and syntax supply all the means of supplementing supposed 'deficiencies' in vocabulary. For example, the 'lack' of a word in Māori for 'thank you' contributed to the label of being 'ungrateful' (see for example, Colenso, 1965). The implication is that science (and mathematics) is the preserve of White men. Edward Tregear (1904:427) suggests, with respect to science, that Māori may have done some observation that has provided "glimpses of the truth mixed with strange superstitions and poetic fancies". As such, Māori were still full of "dense ignorances and wild guesses at the laws of nature which accompany the vision of life as seen by primitive peoples" (Tregear, 1904:429).

The growing consensus that people with black skin and (supposedly) sloping foreheads were incapable of abstract thought became the basis to challenge an older notion of an Egyptian origin of science. Martin Bernal (1987) argued with the rise of racism in Europe and the ambiguity of Egypt's 'racial' position in being part of Africa, in part, allowed critics to challenge Egypt's contributing role in European civilization. When brain and skull measurements were taken it was believed that the growth difference was attributed to evolutionary, selective pressures which were greater in white than black, and greater in men than women (Gould, 1981). This provided the basis for differentials between race and sex. Nancy Leys Stepan (1993) comments that paradoxically, the civilized European woman was less like the civilized European man, than the savage man was like the savage woman. In other words, once 'savage' there was little difference between the sexes whilst 'civilized' races, that is, white races, became the basis for sexual differences. The "discovery" that the male and female brains and bodies in the lower races were very alike allowed scientists to draw direct comparisons between a black man and a white female. The male could be taken as representative of both sexes of his race and the black female could be virtually ignored in the analogical science of intelligence, if not completely in sexuality. However, Young (1995b:111) argues sexual difference has been translated into sexual division of race "feminiz[ing] males and females alike in the black and yellow races". The white male remains untouched at the pinnacle of the hierarchy.

Comments made about the intellect of Māori were sometimes made in comparison to others. For example, Mr. J. Watkins, a private surgeon who came to New Zealand to collect natural curiosities, when reporting to the select committee on New Zealand affairs told them that:

> There is a great Difference between the Appearance of the Natives of New Zealand and the Natives of Australia. The Natives of Australia are very inferior in point of Intellect; their Foreheads are very flat, and recede very much, and they are weakly in Appearance. The Natives of New Zealand are very bold, stout, and athletic; some of the men are Six Feet high, and stout in proportion (Watkins, 1837-38:16-17).

Head shape was seen as very important in determining intelligence. According to Bolt (1971:17), others reported that the sparse vegetation and animal life combined with aridity and isolation helped to explain the backwardness of the New Zealand and Australian aborigine. This explanation draws on McClintock's (1995) idea of 'anachronistic space' in which Europe was conceptualized as geographically superior.

However, not everyone thought Māori were unintelligent. Brown (1851:94) writes that Māori intellectual capacity was of a high order with fine intelligent countenances with the expansive forehead of a philosopher ... [and] knowledge only is wanting to enable them to become formidable rivals in mental superiority". This consideration of Māori intellect was also made in comparison to other 'colonized peoples' as Brown continues.

> One of the most prominent causes of our failure, in respect of other demi-savages, will be found to exist in the vast inferiority of their minds generally; or at least, in the entire dissimilarity between the two races; but this does not hold with regard to the New Zealanders (Brown, 1851:109).

Often comment was made about intellect in relation to 'moral' character and education. For example, Colenso (1865:39) describes Māori in the following terms: "Their intellect and moral faculties as a race were of a high order; however stunted, warped, or debased they may have been through custom, habit, or their strong and unrestrained animal propensities". Charles Hursthouse (1857:182) wrote "In natural intellect they are undoubtedly quite equal to any European race. Indeed, I think (with a good teacher) a Māori child would learn to read and write more quickly than an English child; ...". At the same time, Māori seemingly possessed natural propensities that suggested the intelligence was not as good as Europeans and lacked the refinement only Christian morality would bring. For example, Colenso (1865:39-40) suggests Māori "lacked originality of thought", were" barren of invention", "had rhythm but no rhyme", "excelled in order and regularity", but very good at "mimicry", "imitation" and possessed "a low wit" and a "good memory". What is suggested here is that Māori were not capable of abstract thought, only good enough to copy others – the mimic (Bhabha, 1994). It appeared that it was widely thought moral education was needed. This contradiction and ambivalence of being semi-intelligent – good at copying but not

original - but needing moral development affected education provision for Māori for well on 100 years and is explored more fully in a later section.

As the natural sciences gained power and prestige, the question of who was capable of engaging in abstract thought and rationality, that is, science, took on a new urgency. European men of science debated the intellectual abilities of men of various races and of women. Were women and blacks (including 'browns') capable of abstract thought? 'Black (brown) women' were never asked the question because it was considered to be not relevant. Harding (1993) argues that experiments occurred in the eighteenth century to see if, by proper cultivation, women and blacks could be educated in the natural sciences. A few European women and African men were admitted to universities in Germany. They became curiosities and were educated at the whim and pleasure of their patrons. These 'guinea pigs' lived under constant scrutiny, always seen as representatives of their race or sex, their positions tenuous and easily revoked.

This section has indicated that a multi-dimensional map of social difference had been drawn, which included shadings of racial, class and gender hierarchies that readily inter-mingled. Discourses of gender and class were used to make increasingly refined distinctions among the different races. The 'colonized' body emerged inscribed with attributes and capacities resulting from observations and experiment. External, easily measurable and observable features were constructed as the projection and manifestation of invisible, internal characteristics and capacities. For example, skull size and shape came to be translated into intelligence. That is, the 'panoptical gaze' (Foucault, 1977) produced knowledge of both visible and invisible or internal properties. McClintock (1995) suggests that the social power of the image of degeneration is double. First, groups such as Māori were increasingly described as "races" and could be cordoned off as biologically distinct. Secondly, the degenerate image fostered a sense of legitimacy and urgency for intervention, by state and church, in public and private life of metropolis and colony. The quasi-biological metaphors of "type", "species", "genus" and "race" were expressed through the discourse of physiology. However, arguably the most damaging for Māori was how these discourses of 'race' found their way into organizing and delivering schooling for Māori.

Educating for rationality

Education has been described as "a massive canon in the artillery of the empire" (Ashcroft, Griffiths & Tiffin, 1995:425). The metaphor is appropriate as Bhabha (1994:83) points out

> The barracks stands beside the church which stands by the schoolroom; the cantonment stands hard by the 'civil lines'. Such visibility of the institutions and apparatuses of power is possible because the exercise of colonial power makes their relationship obscure, produces them as fetishes, spectacles of a 'natural'/racial pre-eminence.

Important here is that the authors are suggesting here that colonial domination is achieved in large part through what is taught to the colonized, how it is taught, and the placement of the educated subject as part of the continuing colonial apparatus. According to the discourses of race outlined so far, the progress of culture works by a regenerative development between cultures, in which one culture educates another. This is achieved in a double sense - 'genetically', as outlined previously, and what is communicated and applied, of which 'education' is part. Education for rationality is not about 'science education' in the sense of subject study in school but about how Māori were educated to believe that English language and culture was superior in every way to Māori language and culture. The assumption was that English language was the only language that was capable of conceiving of and expressing rational thought. Hence, the purpose of this section is not to give a history of Māori education but to argue that Māori education in the nineteenth and early twentieth centuries was based on the organizing tropes of racial and cultural difference, and that these were implicit in the education of Māori. In particular, this section looks at how such 'education' was established. Firstly, I examine how literacy education through "the English book" (Bhabha, 1994:102), or the Bible, was involved in the educating for rationality. And secondly, I look at how the establishment of a formal public Native school system regulated and sustained the earlier church missions' practice of monoculturalism in Māori schooling.

The English Book

The application of racial science to schooling, and the primary movers in educating Māori in the nineteenth century being the Christian mission societies, made education a site for the intersection of scientific with Christian discourses. Schools were an integral part of the Church Mission Society's (CMS) 'civilizing programme' in many colonized societies. By 1817, one year after Thomas Kendall established their first school in New Zealand, the CMS had already established 61 schools in India and in 1818 had

commissioned a plan in India for instruction in English (Bhabha, 1994:106) – an idea they were to implement here eventually as well. With the missions being the prime instigators of literacy education, essentially there was no separation between school and church. Barrington and Beaglehole (1974:3) wrote, "Because one learnt to read in order to read the Bible, and was taught by reading the Bible, there was little difference between the congregation gathered together to worship and the community assembled in 'school'". For example, one mission school curriculum in 1824 is described as:

> I begin with a prayer with them, then set them their lessons and spelling, then ask them questions or teach them to repeat lessons which I have made for that purpose, concerning God, the Creation, the Fall of man, the law of God, the birth of Christ, His death, regeneration and such like things ... (as cited in Barrington & Beaglehole, 1974:17).

A number of colonists agreed with this position. Charles Hursthouse (1857:167) writes "it seems to me that in the work of converting the heathen, Christianity and civilization should go together: the plough and the prayer-book, the carpenter's shop with the chapel ... ". The plough, carpentry skills and the prayer book all came as part of the lessons at school given by the missionaries. In other words, the English ways of life, the 'civilizing mission', were inseparable from learning to read.

Generally, the mission schools taught in Māori prior to the 1840s. For example, Barrington and Beaglehole (1974) report that Thomas Kendall gave lessons through the medium of Māori language using pictures of Biblical scenes, such as 'Adam and Eve', royalty and leaders of the Christian Mission Society (Barrington & Beaglehole, 1974). Kendall approached the teaching of literacy through the Bible by translating it into Māori. In order to do this he had to first change Māori from an oral language to a written language and did so phonetically and by using English as a model. By 1917, Kendall had written some lessons in the medium of Māori and, with the help of Samuel Marsden in Parramatta in New South Wales, a written Māori language was developed over the following years. As more mission societies arrived in New Zealand, mission schooling became more prominent. While short excerpts from the Bible had been translated and printed in the 1820s, by March 1836 Reverend William Colenso – who was to become an acknowledged expert in Māori language and natural history – began printing the entire New Testament in Māori (Barrington & Beaglehole, 1974:20). There is little doubt that the missionaries wanted to teach their civilizing lessons in Māori. However, this scenario had been played out repeatedly in the "wild and wordless wastes" (Bhabha, 1994:102) of colonial India, Africa, the Caribbean and the Pacific. The 'discovery' of the English book (in the native peoples' own language) and the

authoritative positioning of the Bible as a work came from its use to teach as well as preach from in the colonies.

Bhabha (1994) suggests the Bible is a signifier of both colonial desire and discipline. Māori sought literacy in large numbers. Butchers (1930) suggests between 1816 and 1840 80,000 copies of parts of the Bible in Māori were sent from England for the use in mission schools and Colenso printed a further 75,000 in the period 1835-1840 at the Paihia Mission Station. This suggests that the Bible, or pages of it, was a very popular possession. For Māori the Bible seemed to confer on its owners both the power and the knowledge of authority. While the actual numbers of 'literate Māori' were unknown, Barrington and Beaglehole (1974:28) suggest that by the 1840s "half or a little over half of the adult population could read or write a little in their own language". Charles Hursthouse, in the 1850s, writes of the literacy phenomenon.

> Of 104 Māori labourers once employed by the Royal Engineer Department at Auckland, it was found that all were able to read the New Testament (in Māori), and that 102 could write: a statement which ... could probably not be made of an equal number of common labourers in any country in Europe (Hursthouse, 1857:182-3).

While the book was translated, and Māori learned to read in Māori, the Book was still an English book that contained all the signs and symbols of English culture. In this sense, it forms a representation of colonial authority. Bhabha (1994:108) argues that colonial authority relies less on a "universal symbol of English identity than on its productivity as a sign of difference". In other words, whether in English or Māori, this book relies for its authority on the difference between Māori and English cultural practices. However, having been translated into Māori language the book became another text that was "almost the same but not quite" (Bhabha, 1994:86).

In order to achieve the high percentage of Māori who were literate cited above, or even anything near it, the missionaries had to rely on the work of 'converted natives' as teachers as there were not enough missionaries to be in every school that was set up (Barrington & Beaglehole, 1974). 'Native teachers', or native catechists more likely, are examples of 'mimic men' in representing a missionary desire for a "reformed, recognizable Other" (Bhabha, 1994:86). They enabled 'English ways' to infiltrate more deeply into the villages as they emerged as leaders presenting and understanding a new amalgam of traditional and European ideas. Conversion required the 'native teachers' to take on English cultural artifacts and ways of life, for example, the ceremony of baptism

and re-naming. It was viewed as having no real consequence but, by converting, the natives were gaining greatly.

> ... by calling himself Peter and going to chapel in a beaver hat, the Māori is likely (as is the case) to become a better customer and a better man, surely his doing so is a gain to the community and no loss to himself (Hursthouse, 1857:165).

Baptism can be seen as 'worlding' (Spivak, 1984) an uninscribed body 'in the name of the Father' (Son and the Holy Ghost). It is a text of the English civilizing mission and suggests the triumph of a moment of colonialism. The production and use of 'native teachers' suggests "a complex strategy of reform, regulation and discipline which appropriates the Other as it visualizes power" (Bhabha, 1994:86). However, at the same time, to be Anglicized is not to be English, suggesting that the 'native teachers' can also pose a threat to normalized knowledge and disciplinary power. While the 'mimic men' repeated messages from the Bible and the missionaries, they themselves were not English – they embodied difference.

'Going to school', in the early decades of the nineteenth century, also meant staying at the mission station (Barrington & Beaglehole, 1974). It was this that cemented the civil, as opposed to religious, conversion. Often staying was out of necessity, as Māori from great distances sought out what the mission stations 'schools' offered, but Māori staying at the mission was also the preferred option of the missionaries. By keeping the students at the station it ensured not only regular attendance but the missionary wives were able to teach Māori girls the 'domestic arts' while the boys were taught agricultural and carpentry skills. Charles Darwin's visit to Waimate Mission Station in 1835 brought forth the comment in his journal about Māori women:

> A more decided and pleasing change was manifested in the young women, who acted as servants within the houses. Their clean, tidy, and healthy appearance, like that of dairy-maids in England, formed a wonderful contrast with the women of the filthy hovels in Kororadika (Kororāreka now known as Russell) (Darwin, 1959:410).

Staying at the mission exemplifies Foucault's (1977) notion of "corrective" detention. Foucault (1977:25) argues "it is always the body that is at issue – the body and its forces, their utility, their docility, their distribution and their submission". The purpose of staying was about 'civilizing' the young Māori women through assimilating them into ways of the English by getting them 'to act as servants'. The difference between these young Māori women and the missionaries' wives and daughters is complex and does not adhere strictly to the usual mistress/servant relationship. The Māori women were not paid as servants, except in 'lessons of civilization', and nor did the missionary

wives live a life of the leisured middle or upper classes as did women in their class in England. The Māori women did not teach their charges to read or instruct them in their 'manners' such as governesses would, but instead were being instructed in reading and 'manners' themselves like young children.

The 'discovery' of the Book and its translation into Māori is a double inscription. On the one hand, the language had to be changed from one that was oral, with all the traditions that went with that such as histories carried in stories, to a written form of language using English script. In other words, it is a 'translation' process where the marks of speech have been translated into marks of writing – a new 'text' according to Derrida (1976). Simultaneously, the translation of the Bible is an over writing of the culture – a re-visionary narrative of beginnings, and everyone's place in this beginning, at the very least. This Bible narrative of beginnings of the world had particular consequences for Māori women that will be addressed in the next chapter. It is sufficient to say here that the 'discovery' of the Book "installs the sign of appropriate representation: the word of God, truth, art creates the conditions for a beginning, a practice of history and narrative" (Bhabha, 1994:105). The power of the written word to codify, define, and control was reflected in the Bible literacy of Māori.

The book in English

While most of this schooling was done in Māori language, by the 1840s Māori desired the English language and other books besides the Bible. Kuni Jenkins (1993) documents the literacy process of two young Māori boys, named Tuai and Titere, in learning to read and write in English early. They left New Zealand in 1815 and spent time with the Reverend Samuel Marsden stationed in Parramatta in New South Wales, and from there they went to England, arriving in 1817. Letters written in English and dated 1818 speak of their trouble in learning to read 'the Book', with one boy writing,

> I am very bad boy and cannot read the Book Mr Eyton ask me, better read the Bible and he give me the good Book he tell me better learn the Bible and go home to my country, and speak to my countrymen, and learn him to read book (as cited in Jenkins, 1993:17).

It appears here that the Bible, whether in English or Māori, was the most important item in learning to read – either way it sustains a tradition of cultural authority because it embodies the Western sign. The Bible in English, and other books that were to follow, reinforces that 'civilizing' and 'education' were the same thing by beginning to recreate a culturally and linguistically homogeneous English New Zealand. Changing to education in English and the formalizing of the Māori school system by the settler

government in 1867 did not change the practice of education in significant ways but further embedded them into a formal system.

With the signing of the Treaty of Waitangi in 1840 and the establishment of New Zealand as a Crown Colony, a more formal schooling structure was forged for Māori over the next 60 years. While the colonists were establishing schools in settlements for European children, the education of Māori children continued under the governance and practice of the missionary societies. This is important as even though non-sectarian schools were being established, the abdication by settler government of the education of Māori to the churches suggests two things. Firstly, it was easier for the settler government to continue what was already established and to legislate some funding (Barrington & Beaglehole, 1974). And secondly, the commonly held 'racial' inferiority views of Māori at the time made Christian moral education still necessary and carried out by the missionaries, particularly that targeting Māori to change their way of life (Hursthouse, 1857). Barrington and Beaglehole (1974:34) argue, "Government itself would embark upon a civilizing mission among the Māoris (sic)". The Native Trusts Ordinance 1844 (which was not enacted until 1847) emphasized for Māori education the importance of religious education, industrial training and instruction in English (Corboy, 1973). In the preamble to the 1844 Ordinance it is written "... to avert like disasters by assimilating as speedily as possible the habits and usages of the Native to those of the European population". In 1847, Grey's Education Ordinance stipulated that the Mission schools could receive subsidies from the government if they offered instruction in English as well as Māori. Although bilingualism was still part of the Māori schools, at the heart of this policy was the requirement that schools teach English customs and language to students. In other words Governor Grey's funding of the church schools was one way he could achieve both providing an education for Māori and to embark on a 'civilizing mission', including the teaching of English, and showing Māori the virtues of British civilization. The civilizing mission of the churches was left to continue with the support of government and better funding suggesting that the knowledge of the two – church and government - were at least non-contradictory if not identical.

This is evident in the establishment of Hukarere, a Māori girls' boarding school, in 1875 (Jenkins & Matthews, 1995). The high school was a joint venture between the Anglican Church and the Department of Native Affairs. It was run by the Reverend William Williams, who was head of the Church Missionary Society's mission station at

Waimate, and three of his daughters - Maria, Kate and Marianne. One of the purposes of the school was to continue what missionaries had begun 60 years prior – to convert Māori to Christianity and to continue the civilizing mission. Bright Māori girls often won scholarships to attend and they were away from their homes for an entire term or sometimes longer. This separation from family and community for long periods of time enabled the 'civilizing' practices to achieve some far-reaching social goals. It also became a way in which the girls could undergo 'surveillance' (Foucault, 1977) during the proposed transformation. The girls' education at Hukarere, as at the other church boarding schools, was two fold. Firstly, and in contrast to the Native School Code 1880[4], the school's curriculum was 'academic' and based on the English grammar school model consisting of English, Latin, Algebra, Physiology, Drawing, History, Drill, Singing and Dressmaking. This enabled the girls to partake in a very comprehensive curriculum but very 'English' at the same time. And secondly, the girls 'kept house' in the boarding establishment so that they could learn to keep house like a middle-class English woman in order to take it back to the village while also becoming the future guardians of morality through their roles as wives and mothers. It was at the boarding house where they learned meal preparation, serving, laundry work, house keeping and gardening.

This 'dual curriculum' situated the Māori girls in contradictory ways. They were at once being 'taught' that they were intelligent while at the same time being prepared for European women's roles in Māori communities. Both had means of discouraging Māori belief and ways of life through European dress, an English curriculum and the use of European manners. Hukarere girls in Figure 3.4 show them as impeccable models of English public schooling, the regimentation of the external body being a sign of new life – a successful transformation of body and mind. The clothing signifies the 'new woman' with the exception of the body of difference – almost but not quite white (Bhabha, 1994:86). However, the point is that the contradictory positions with respect to intellect did not contradict the 'civilizing mission' to Europeanize bright Māori girls. As the Native Schools Inspector in 1888 wrote in his report:

> The work of teaching the Māoris to speak, write and understand English is in practice second only to that of making them acquainted with European customs and ways of thinking and so fitting them for becoming orderly and law abiding citizens (AJHR, 1988, Volume D-G, pp8-9).

---

[4] The Native School Code 1880 provided for the establishment of Native (Māori) schools, the conduct of the schools, the selection of teachers and the curriculum. The syllabus for Native schools was similar to that provided in public primary schools except History, Elementary Science and Formal Grammar were omitted (Openshaw, Lee & Lee, 1993).

I think it particularly important that bright women were chosen as this was seen as the quickest way to influence and infiltrate 'village life' in order to change the customs.

Figure 3.4 *Anyone for tennis?* Hukarere 1908 (Jenkins & Matthews, 1995:34)

Māori sought formal education as a means to extend their body of knowledge and enhance their life-chances and the government, with their policies, intended to replace the Māori culture with European norms. However, at the same time by limiting the curriculum in Māori schools, the government also sought to control the type and amount of European knowledge Māori could access. For example, the Māori denominational boarding schools, and particularly Te Aute College, became a particular focus in Māori education after 1900 as they were charged by the Department of Education with being too academic and accused of not paying enough attention to manual and technical instruction (Barrington, 1988). The curriculum that was proposed included six hours of English, one hour each of geography, civics, health, arithmetic (including book-keeping) and drill. In addition, for boys instruction in agriculture and woodwork would be given eight hours. At this time, in the early twentieth century, the Director-General of Education Hogben was pushing for a greater emphasis on manual and technical training in secondary schools. However, Barrington (1988) argues that there was a particular emphasis on Māori schools for the express purpose of preparing Māori to stay in their own rural communities. John Thornton, the principal of Te Aute

College, resisted the changes to a more vocational curriculum in spite of various pressures brought to bear on the school, such as the withdrawal of university scholarships in 1908 making it difficult for them to enter the professions. However, upon Thornton's retirement the department managed to instigate a 'practical curriculum' for Māori boys.

Under the formal system of Māori education Bhabha's (1994) mimic men became more educated and arguably even further removed from their native communities. The mimic men are intermediaries of the empire – like the native catechists earlier in the nineteenth century, the 'educated' mimic men are the teachers, doctors, clergymen, soldiers and cultural interpreters "dusted over with colonial culture" (Fanon, 1965:47). The first Māori university graduates in the 1890s were all educated at Te Aute Māori Boys College (Fitzgerald, 1970). Sir Apirana Ngata, Dr. Peter Buck (Te Rangihiroa), Dr. Maui Pomare, Dr. Tūtere Wirepa and the Reverend Rēweti Kohere all became very influential in various ways. The success of the process of 'civilizing' Māori through education is perhaps best reflected in Maui Pomare's life. Pomare left New Zealand, as a Mormon, to study medicine in the United States. On his return to New Zealand, Pomare advocated individualization of land titles, a Protestant 'work ethic', and the abolition of many Māori customs including tangihanga (Māori funerals), hui (gatherings) and tohunga (spiritual healing). He suggested that Māori culture and language was 'backward' and found it difficult to fit into Māori settings. At the same time Pomare contributed significantly to the survival of Māori culture and straddled the Māori and Pākehā worlds in an intellectual sense with his writings on Māori mythology. Fitzgerald (1970) argues that it was Ngata that grasped best the implications of a bicultural heritage, advocating the incorporation of 'Pākehā technology' alongside maintaining Māori cultural integrity. The mimic men are made to inhabit an uninhabitable zone of ambivalence that grants them neither identity nor difference but "a flawed colonial mimesis, in which to be Anglicized is *emphatically* not to be English" (Bhabha, 1994:87, original emphasis).

Despite the girls at the sister school Hukarere achieving in a similarly academic programme and there being no structural barriers in New Zealand to women attending university, few Hukarere girls entered (Jenkins & Matthews, 1995). According to Matthews (1993) 211 women (37% of all students) were enrolled in New Zealand universities in 1890 and by 1900 there were 294 (33%). This suggests women were represented in significant numbers at university from the beginning and the women

mainly came from middle-class families. Whilst no specific figures are given for Māori and Pākehā women, the schools that provided most of the women students did not include Māori schools. While this does not exclude Māori women among the graduates, it is highly unlikely they featured in any significant numbers if at all. Hence, Bhabha's mimic men appear to be just that – men. At the same time Māori women assumed the feminine roles imposed on them by the civilizing process, another 'mimicking' process. Luce Irigaray (1985) suggests that in certain social contexts women perform femininity as a necessary masquerade. While Bhabha's idea of mimicry is 'ungendered', and Irigaray's privileges gender over race, the education of Māori women at this time suggests mimicry must be both racial and gendered simultaneously. This reinforces the idea that discourses of 'race' and gender are produced through each other. Being 'intelligent' and achieving well, the fundamental assumptions of the discourse of meritocracy, did not enable these Māori women to attend university. Instead some of them became 'teachers' in the Native or Māori boarding schools, nurses, did missionaries work or simply returned to their native communities to live (Jenkins & Matthews, 1995; Simon & Smith, 2001). At the same time, being Māori did not stop the Te Aute men attending university and qualifying in medical sciences (Fitzgerald, 1970). The point here is that Māori boys had access to science as a school subject which enabled them to continue in science professions, whereas the Māori girls were given 'home science' in order to make them better wives. Being a 'bright, Māori girl' in the social context of the nineteenth century schooling was the issue.

The whole debate surrounding Te Aute College and Māori intelligence highlighted a significant watershed for Māori education, as the views portrayed by the Department of Education in this debate were to last for the first half of the twentieth century as well. As Barrington (1988: 54) has expressed it:

> These views included the assumption that Māori rural communities should be preserved and that Māoris should stay within them; a biological and racist assumption that the 'natural genius' of the Māori lay in manual labour and a strategy, whether conscious or unconscious, to reduce competition for expanding bureaucratic, commercial and professional positions in urban areas by putting impediments in the way of Māori students.

This practical and vocational bias for Māori boys, to become good farmers, and for Māori girls to become good farmers' wives, carries with it the assumption that Māori would always be confined to the rural districts, never having the aspirations to do something different, and should 'cultivate' the land. Yet to do this, the 'civilizing mission' directed its attention to cultivating Māori boys' and girls' minds and bodies.

Conclusion

This chapter has deconstructed the discourses of progress, degeneracy and science, and the way the European scientists 'gazed at' and 'fragmented' Māori bodies – simultaneously writing Māori into being and non-being. Being written into the text was recognition and even enabling in the multiple subject positions denoted, yet finding oneself in the text in parts is the same as being an object that can be pulled apart. Foucault argues:

> ... the body becomes a useful force only if it is both a productive body and a subjected body. [...] That is to say, there may be a "knowledge" of the body that is not exactly the science of its functioning, and a mastery of its forces that is more than the ability to conquer them: this knowledge and this mastery constitute what might be called the political technology of the body (Foucault, 1977:26).

I have argued that European scientists brought with them ideas regarding Māori that were deeply infused with discourses of progress and degeneracy that determined what became empirical evidence of the 'Māori character'. In particular, Māori were portrayed as prehistoric, atavistic and barbaric with the use of metaphors of nature, particularly plants, so as to 'naturalize' the hierarchy of race. With the use of animal tropes, Māori were seen as being in 'kinship' with them so that 'natural' man was found among the first order of nature, that is, the primates and the 'savages'. Those who could bestow such order became the scientists. This taxonomic science was a 'Christian science' with "a secular sacred function" (Haraway, 1989:9). Nature, therefore, became a "stage for the playing out of natural and salvation history" (Haraway, 1989:9). For Māori the secular sacred function was the 'civilizing mission' where discourses of science were inextricably entwined with discourses of Christianity.

The body of Māori, as the body of nature, may be read as a map of power. The 'Christian science' discourse became the basis for schooling Māori in the nineteenth century in that Māori were being civilized on the basis of discourses of race (and gender). 'Civilization' extended from the learning process of the individual to that of Māori society generally according to the intellectual capabilities of Māori based on a hierarchy of race. However, 'civilization' in the nineteenth century was intertwined with discourses of progress, both unilinear and hierarchical. At the same time, 'civilization' contained contradictory discourses. In other words, being 'uncivilized' was seen as a temporary difference for Māori – a difference of stage at the present that could be

transformed through education and not necessarily a constitutive basis of difference for all time. The improvement of the mind could be achieved through education and training. In this sense, there was an intrinsic enabling relation between culture and education. However, as I have shown there is also a contradictory disabling relation in that Māori culture was replaced by English culture that was seen as 'superior'. Chapter Four continues the deconstruction of the discourses of Māori women with a view of the sex/gender dualism.

CHAPTER FOUR

Colonial desires: 'race', sex and gender

In the story of *South Pacific*, the famous musical set in World War 2 in the 'exotic' South Seas, the plot revolves around children of 'mixed blood' (Shohat & Stam, 1995; Young, 1995b). There are two versions of 'mixed ancestry' that occur in the story. The first story is of a white American sailor who takes a boat trip to an off-limits island where he meets and falls in love with a young, beautiful Polynesian girl. However, whilst talk of marriage is entertained the white sailor 'takes fright' at the mention of children and runs back to his boat. In another subplot a white American nurse, Nellie, falls in love with a Frenchman, Emile. One day she notices a line of Polynesian children nearby and Emile tells her they are his children. Nellie also runs away. Whilst the rest of the story tells of how both the white Americans overcome their immediate and simultaneous reactions of desire and aversion, there are a number of points raised by this widely liked film. The idea of an exotic, south-seas romance stands in stark contrast to the possible consequences of such a romance – the production of children 'not like me'. While love purified sex it was still inseparable from reproduction. In addition the choice of Polynesian peoples to portray the 'coloured' characters in this film were deliberately chosen for their 'light colour' (Shohat & Stam, 1994). Robert Young (1995b:xii) argues that discourses of colonial desire focus on an "obsession with transgressive, inter-racial sex, hybridity and miscegenation".

However, such a story of simultaneous desire and aversion is not just theatre or on the screen. Belich (1996:154) suggests that European sailors saw New Zealand as "islands of sex in a vast sexless ocean and, less tangibly, by the local absence of a sense of sin or immorality – a recurring theme in lower-deck romanticism". Charles Hursthouse (1857), in his reference to Māori women as "black perfection", wrote:

> A few of the high-born (Rangatira) girls, however, are richly beautiful – displaying the lithe elastic figure, soft brilliant eye, Grecian face and rosy brown complexion, set off by glossy black hair falling to the knees, and a free Diana step, that would create a crowd in Regent Street, and drive Parisian beauties to despair – or paint (Hursthouse, 1857:169-170).

Such descriptions were not uncommon (see Domett, 1872; Buller, 1878). However, the unions or alliances and the production of children in them while acceptable in New Zealand were not acceptable in other contexts. James Buller (1878) relates a tale of a Northland Māori chief giving his daughter to a British Officer. The officer, and the woman, called Ngahuia, had a daughter described by Buller as "a fine fair child" (ibid:257). After some years of living together the officer obtained leave to return to England having inherited large property through the death of a relative. Whilst promising to send for them he never did. The offspring of inter-racial sexual intercourse were often referred to as 'handsome' and 'fine-looking' and it would appear that their physicality was not at issue. The aversion stemmed from the discourse of degeneracy and racial 'purity' where culture and civilization are products of sexual and racial difference.

In looking at Māori women it is important to ask 'what were the discourses of gender in European and Māori cultures at the time of colonization? Did new discourses of gender emerge from colonial contact, and if so, in what way? While taking account of the 'racial' discourses already discussed, this chapter focuses on deconstructing the 'gendered' positioning of Māori women in the nineteenth century texts. I argue that the colonial authority was exercised through the production of discriminations between European and Māori and men and women. In particular, I demonstrate how the institutionalized power-laden modes of study have combined with Māori discourses on Māori women to historically reconstruct Māori women's subjectivity in pre- and early colonial Māori culture. I begin by exploring how gender was seen as a 'subset' of race. I then examine two gendered religious discourses – the Virgin Mary and her opposite 'Eve' – and argue that these were brought to New Zealand and 'applied' to representations of Māori women. Finally, I argue that the fallen Eve discourse was used to devalue Māori women's status and position in Māori culture.

Intersections of discourses of 'race' and gender

Recent scholars discussing eighteenth and nineteenth century racial science have argued that scientists of the time saw sex and race as two aspects of the same problem. For example, Robert Young (1995b:181) writes

> Nineteenth-century theories of race did not just consist of essentializing differentiations between self and other: they were also about a fascination with people having sex – interminable, adulterating, aleatory, illicit, inter-racial sex.

Conversely 'sex' must also have been about race, for example, Caucasian women were more prognathous or ape-like in their jaws than white men, and even the largest women's brains (from English or 'Scotch' women) made them like the African male (Stepans, 1993:364). Reeves (1902:116) reported that the New Zealand (white) woman is a "wholesome, happy, intelligent, home-loving race". In making 'woman' analogous with the 'lower races', through the 'new' science of anthropometrics or measurement of the human body, 'woman' became a racialized category and traits and qualities specific to women could be used to understand lower races and vice versa. Women and the 'lower races' were seen as sharing similar deficiencies when measured against the norm – the 'elite' European man. While women were seen as a subset of race, which was represented in hierarchal fashion as shown in the last chapter, woman was simultaneously based on a model of divergence. That is, man and woman are each perfect but radically different and so suiting them to different social spheres. Schiebinger (1993) argues that this theory of sexual complementarity was an attempt to diminish competition with or hierarchy over each other by defining them as opposites.

At the same time, discourses of race and sex are not without references to discourses of class (McClintock, 1995). In particular, upper and middle-class European women were able to be idle and indifferent to the pleasures of the flesh. In particular, hands expressed one's relation to labour – dainty hands were unstained by work. Brown (1845) made the comment that "chief women have frequently small and well formed hands and feet, which is almost the only good feature they possess". Such a comment can only be interpreted as one of 'class'. In contrast, working-class women were seen as being vested with 'masculine' attributes that were made through the 'dirt' of manual labour. For example, McClintock (1995:108) writes of the "racial" otherness of working-class women in South Africa when they were involved with "black work" such as working in fields or coalmines. White working-class women, through the discourse of degeneration, were identified with black men. The entwined discourses of race, 'sex' and class can be found in the Enlightenment science writings of Māori women. Lévesque (1986:2) argues that European working-class women in New Zealand were always considered to be of "low-repute, seductresses and carriers of shameful diseases" while European middle-class women were viewed as "prolific queens of the household".

Māori women were often defined in relation to Māori men and seen to be 'inferior'. The inferiority was a mixture of racial and class characteristics

concerning their relation to labour, or cultural expectations of women working. For example, Brown (1845:31) saw Māori women as being "greatly inferior to the men, physically as well as mentally". The Reverend James Wood (1868:107) wrote, "As often the case with uncivilized people, the women are decidedly inferior to the men, being much shorter, and not nearly so well made." Buller (1878) commented that the women were not as good looking as the men because they worked so hard. According to Hursthouse:

> The ladies, somewhat 'pétite', are by no means so good-looking as the men. Highly precocious, often leading a sexually dissolute life from childhood, marrying early, and then performing a large share of field labour, they soon become bent and broken, are old at forty, and repulsively weird and witch-like at sixty (Hursthouse, 1857:169).

He goes on to suggest a hierarchy of men and women, Māori and white, working class and upper and middle-class.

> A Māori will never marry a white woman, because he feels her superiority, and he cannot make a slave of her as a native woman. A white woman, not even the most degraded, could be induced to unite herself with a Māori – to herd native fashion in a pa, amid dirt, vermin, and discomfort, in every conceivable form – to carry enormous burdens, such as faggots of firewood, heavy kits of potatoes maize or wheat, weighing generally fifty or sixty pounds – and to perform other laborious work exacted from their women by barbarous races wherever they may exist (Hursthouse, 1857:175-176).

Suggested here is that white women are better than Māori men, even working class white women, and that Māori women are the lowest of all. Māori women lived 'a life of drudgery' caused by the heavy workload of the family falling on their shoulders - cultivating the ground, carrying produce such as firewood, potatoes, maize and wheat, from field to door, and carrying loads when the family traveled (Hursthouse, 1857; Wood, 1868). McClintock (1995:103) suggests that the more menial the work a woman did, the more manly and 'unsexed' she was, to the extent that she was considered a "race apart". Māori women threw into stark relief the image of the idle, ornamental woman and that of female labour. The outrage vented at the spectacle of a 'visible' form of work as opposed to the less visible domestic work, often carried out by white working class women. The Enlightenment discourse on Māori women became deeply entwined with the discourse of degeneration – Māori women were portrayed as being forced to work in the fields like beasts of burden.

Another way in which the discourses of sex and race were dependent on one another was through childbirth and looking after children. In particular, ethnographers were at pains to point out that Māori women had children in the way that animals gave birth, resonating the intense interest of Enlightenment

scientists on the gap between animals and humans (Haraway, 1988; Schiebinger, 1993). Colenso (1865:6-7) commented that giving birth was easy for Māori women and a common matter, "sometimes women delivered themselves alone, and having done what was necessary for themselves and infant, returned to their usual occupation. They commonly suckled their children until they were two years old and sometimes much older". In comparison, leisured white upper middle-class English women would have working-class or, in some colonies, Black wet-nurses to feed and tend their children as the mothers were considered to be physically delicate and adored from afar (McClintock, 1995:79-80).

Another metaphor used was that of 'savagery' when Māori women were reported to be cold-blooded child murderers (Colenso, 1865; Brown, 1845). The practice of infanticide was seen as absolutely abhorrent, on the level of cannibalism. Colenso (1865), an acknowledged expert on Māori affairs by many writers, wrote that mothers kill babies if they think their fathers did not care for them. Furthermore, in making a note of motive, he writes that it is often small reasons, such as quarreling with the husband and killing the baby to "annoy him" (Colenso, 1865:41), that leads to the eventuality. There are other oral reports of infanticide made to the Select Committee of the Isles of New Zealand, such as that by J. S. Polack (1837- 1838:84), a commercial trader, and Nayti (Ngāti?), a Māori informant (ibid:113). The principal reason forwarded to the select committee was an inability to feed more than 9 or 10 children, or if the women were beaten by their husbands or a master. However, the Rev. F. Wilkinson (1837- 1838:99) reported to the same committee that he had never seen a case of infanticide. This suggests that it may have been overplayed and that while it may have happened it may not have been commonplace. Another reason forwarded for infanticide was that the child was killed "if the white father moves away and leaves the Māori mother behind" (Colenso, 1865:41). White military men marrying Māori women, having children together and then leaving them was quite common as they would often go back to England sometimes to inherit property which neither the Māori wife or children inherited (Buller, 1878; Papakura, 1986).

This section has argued that the discourses of race, gender and class are not distinct realms of experience or discourses that are 'additive' and yoked together. They come into existence in and through relation to each other – often in contradictory and conflictual ways. It is a theme that continues throughout the sections that follow, that is, the intimate relations between Māori and Pākehā, race and gender, money and sexuality, and imperialism and power. The next section looks more specifically at comparing European women with Māori women, that

is, the Victorian view of 'woman' and how it contradicted, conflicted and colluded with Māori views of 'woman'.

Organizing images of sexual difference

Science in the eighteenth and nineteenth centuries centred on sex and reproduction resulting in women's sexuality becoming a focus of colonial discourse. Through sex and reproduction, women's bodies were considered to be the central transmitter of racial and cultural contagion, which meant that by controlling women's sexuality you could control the health and wealth of the male imperial body (McClintock, 1995). Feminist writers have argued that the Christian discourse of 'ideal womanhood' heavily influenced views of women's sexuality during this time (Merchant, 1980; Grosz, 1989; Schiebinger, 1993). In this discourse the Virgin Mary, a uniquely sinless woman, stands in contrast to two other major figures in the Bible, Eve, the woman who 'fell from grace', and the 'prostitute' Mary Magdalene. Grosz (1989) argues that the figures of the Virgin Mary and Eve (or Mary Magdalene) represent women as a coupling, being 'two sides of the same coin', of sexuality and death. Eve is the original woman in the Judeo-Christian accounts of the Creation and is constructed as being both corrupting and corruptible. The 'temptation' of Adam, the expulsion from 'The Garden of Eden' and the mortality of humans are all the consequence of 'Eve's desires'. Such a 'reading' of Eve is not only patriarchal but also implies that a patriarchal social order is both 'divine' and 'natural'. In contrast, the Virgin Mary is both the mother of Jesus and the bride of Christ. She is never conceived of outside either 'nurturing' or 'sexual' terms and while she gave birth to Christ she remains a virgin even though she is a mother. The Virgin Mary represents those socially necessary attributes in a patriarchal social order of humility, modesty, maternal love, and charity – all marks of compliance and subjection. On the other hand, Eve (or Mary Magdalene) represents depravity and degeneration – the characteristics of libidinous, wild femininity.

Māori women's sexuality has been brought under control using this coupling. These discourses are explored in this section through the themes of 'discovery of empty lands', Māori women as 'prostitutes', and through tourism brochures, postcards and paintings of the late nineteenth and early twentieth century. All these icons of European culture advance representations of Māori women as erotic beings and as sexually available. It is argued that through these ideas Māori women's sexuality becomes a trope for scientific knowing (for example, see

Shohat & Stam, 1994; McClintock, 1995; Mama, 1995). Furthermore, the examples illustrated here indicate that the women came into European knowledge as an adjunct of men – both Māori and Pākehā. There are two major reasons forwarded as to why this occurred. First, virtually all the observers - whether they were sailors, ethnographers, scientists or missionaries - were white men, so most accounts produced at the time were observations from that perspective. Secondly many of the observers did not speak the Māori language and therefore lacked an understanding of the culture that led to significant markers being missed (Papakura, 1986).

The myth of virgin lands

Gendered tropes that link the colonized to eroticized geographies of 'virgin' lands, 'dark continents', 'screened' territories and symbolic fantasies of 'rape and rescue' are common in colonial discourse (see for example Shohat & Stam, 1994; McClintock, 1995). The gendering of imperialism took very different forms in different parts of the world. While India was seldom imaged as a virgin land, North African, Middle Eastern and Asian women were often associated with the iconography of the veil, and Arab women were to be civilized by being "undressed" (unveiled) (see for example Fanon, 1965; Fuss, 1995; Shohat & Stam, 1994; Mohanram, 1999). African women were subjected to the civilizing mission of cotton and soap and were to be civilized by being dressed up in clean, white British cotton (McClintock, 1995; Mama, 1995). As we will explore in the next section, the korowai or cloak became the native dress with which to "undress" Māori women (Beets, 1997). In the South Pacific, the women were romanticized and associated with nature. The various states of 'undress' among the South Pacific women upon European 'discovery' of the lands only served to reinforce the idea of unrepressed natives in harmony with nature.

According to McClintock (1995) Christopher Columbus, while sailing about in the Caribbean looking for India in 1492, wrote home to say that the earth was not round but shaped like a woman's breast with a protuberance upon its summit in the shape of a nipple towards which he was slowly sailing. These fantasies of likening the exploration for and of land to a woman's body were common – new lands were mapped as a feminine space. Narratives of 'discovered' lands involved the idea that they were virginal and awaiting Western penetration, especially of civilization. As Domett writes in his epic poem about a Māori princess and a [white] shipwrecked sailor, entitled *Ranolf and Amohia, A South-sea Daydream*:

> The mighty Mother, Nature, in such sort,
> Does with her philosophic children sport:

O! they have got her wholly at their feet,
Her mystery known, their mastery complete!
Then, with some little fact or newer light,
Quiet-disdaining even disdain –
She throws them all abroad again;
Reveals fresh depths to their astonished sight,
Resumes her sacred secrecy and might,
And reasserts her ancient reign.
[…]
He [Ranolf] looks an intellectual Corkscrew – fitted
To worm his wriggling and restless way
To Nature's tightest bottled secrets! Play –
Child's play, with that most penetrative muzzle
Were his, to ferret out her mysteries –
(Domett, 1872:52 – 53)

In Domett's words are narratives of inviting virginal landscapes, the libidinal nature of it, the 'playfulness' or fun of penetrating 'her' and the mastery over her by white man. This is an explicitly sexual passage on 'Nature' and what was needed to control her.

While 'named' by the Dutch explorer Abel Tasman, it was Cook who stopped in New Zealand and came ashore. At the time of 'discovery' Captain Cook and his crew came onto the land and used it as their own. The assumption was that the land was empty – uninhabited (for the natives were like beasts), uncultivated, undomesticated, and hence without a legitimate owner, as seen in the quote by his scientist, Forster, in Chapter Three. Again, Domett writes of this in his epic poem:

Sea-king and sage - staunch huntsman of pure Fame,
Beating the waste of waters for his game,
Untrodden shores or tribes without a name;
That nothing in an islands shape,
Mist-muffled peak or faint cloud-cape
Might his determined thoughtful glance escape;
No virgin lands be left unknown,
Where future ENGLANDS might be sown,
And nations noble as his own!
(Domett, 1883:125, original emphasis)

Here Domett speaks of 'future Englands' being sown in 'empty' and unnamed lands. While Domett's poem was not intended as a 'real' event, the representations used in texts, as argued earlier, are part of the European imagination of colonial life in New Zealand. Ironically, at the same time this poem was being written guns were being borne by British military to physically remove Māori from prime land for occupation by British colonists.

The knowledge of the unknown world collected on scientific explorations and colonial experiences was written about in a form where the world is feminized and

spatially spread for male exploration (McClintock, 1995). This amounted to male discovery and female as the object of discovery. It was not written about as the expanded recognition of cultural difference, but as a private possession and, at the same time, a lover. The view of the land as a woman lover enables associations to be made with virginity and represents specific dilemmas with important differences for colonial and colonized women. For example, Francis Bacon notoriously used sexual metaphors to express his idea that scientific knowledge was the control of nature (Lloyd, 1996). Shohat & Stam (1994) have argued that within patriarchal narratives, to be a virgin is to be empty of desire and void of sexual agency, passively awaiting the male insemination of history, language and reason. Women are the earth that is to be 'discovered', entered, named and owned. McClintock (1995) argues that the notion of virgin land is a myth and is the same as the myth of empty lands that involves both a gendered and racial dispossession. In colonial narratives, if the land is "virgin" then colonized peoples of that land find it extremely difficult to claim aboriginal land rights and white male patrimony is violently assured as the sexual and military (by means of conquest) insemination of an interior void.

The connotations implicated in this view of the land had a far-reaching effect for Māori women. While the 'discoverers' saw the land as a 'lover', and used metaphors such as virginity and penetration, Māori saw the land as 'mother'. Furthermore, symbolically Māori women were the land. That is, in Māori cosmogeny the earth itself represents women in the form of a mother - Papatūānuku. This set up a complete contradiction with a non-familial and a familial view of the land. Māori women's sexuality, in early colonial times, was expressed in Māori culture through metaphors of the land. For example, the whare tangata is literally the house of humanity or, in science taxonomy, the uterus. The term 'whare tangata' comes from the creation accounts and connects with the tapu of whakapapa. In this sense, tapu is seen as being intrinsic to the person – the inherent value of each individual and the sacredness of each life (Jackson, 1992). Through the tapu of whakapapa, or genealogy, no individual exists only in the temporal present but is linked to the generations past and possible future. The role of women as bearers of past, present and future generations is of paramount importance to Māori because of this intrinsic tapu. As Rangimarie Rose Pere (1982:22-23) reminds us:

> Within the Māori context, the continuity of descent lines and the flow of ancestral blood through the generations is of the utmost importance.... If a woman conceives then the menstrual blood remains within the womb, and has a vital role in the development of a future ancestor. The expression 'he tapu, tapu, tapu rawa atu te wahine' refers to the very special quality the

women have in regard to their role as 'whare tangata'(houses of humanity).

Furthermore, tapu associated with menstruation and pregnancy prevented women from working around food, prohibited them from heavy work, and prevented them from joining in particular types of ceremonies or projects during these times (Pere, 1982; Papakura, 1986). In addition, rangatira (chiefly) women had spiritual protection put on them during pregnancy or menstruation as a precaution. Such restrictions meant that some rangatira women did not play a full role in iwi (tribal) affairs until they had reached the stage of menopause. Childbirth was also a tapu process requiring a special temporary dwelling to be built for the purpose and later be burned, particularly for high-ranking women and possibly only for their first birth (Biggs, 1960:67).

The significance of the reproductive process is also reflected in the language associated with women and land. For example, *atua* is a word for the supernatural as well as menstrual blood, *hapū* is the word for pregnancy as well as for kin group, *whānau* means to be born as well as the word given to our smallest kinship grouping (extended family), and *whenua* means land as well as the placenta (Mikaere, 1995). When a child is born, the placenta is buried in ancestral land or tūrangawaewae to indicate to the child they belong to this particular land. Eva Rickard (1977:5) explains:

> Firstly whenua is land. Secondly, whenua is the placenta within the mother that feeds the child before birth. And when it is born this whenua is treated with respect, dignity, and taken to a place in the earth and dedicated to Papatūānuku.... this is your little bit of land. No matter where you wander in the world [it] will be here and at the end of your days you can come back ... I [the whenua] will receive you in death.

In addition there are whakatauki, or proverbs, such as 'He wahine, he whenua, ka ngaro te tangata', that also relate women to the land. Often translated as women and land being the two main causes of warfare (by women and land are men destroyed), Pere (1982) points out that humanity would be lost without women and land. Furthermore, in the Māori creation narrative of humankind Tane, one of Papatūānuku's sons, was directed by her to go to her pubic region and there he would find the necessary female element, the uha, to complement his maleness. It was there that Tane shaped Hineahuone, the first woman from the red clay found there. Hence, women and the land are the source of all humanity – physically and as a condition of being.

This indicates that Māori women held a different position to European women in a different social order to that of Western culture. Mikaere (1995) has argued the

awareness and use of sexual power by Māori women influenced the inter-gender power dynamics in Māori society. For example, Bruce Biggs (1960) suggests that the male sense of danger associated with sexual intercourse came from Māori women being proactive in their choice and acquisition of a partner. The traditional stories of Hinemoa and Tutanekai (Papakura, 1986), and Wairaka, Tukaiteuru and Maiurenui (Steedman, 1984) indicate the sexual autonomy of Māori women. These stories do suggest that Māori women were very aware of their sexuality and possibly saw themselves as being equal to their men.

The taming of Māori women

Eighteenth and nineteenth century racial scientists used Linnaeus' "great chain of nature" scale to determine not only relationships between species in nature but also the nature of human beings (Gilman, 1985; McClintock, 1995; Mama, 1995). Asia, Africa, and the Americas were all eroticized in ethnographic and popular literature and included stories of sexuality in far-off lands where men sported enormous penises and women consorted with apes. Native women were the epitome of sexual aberration and excess and bordered on the bestial. In nineteenth century England the prostitute was the essential sexualized female being, the embodiment of sexuality and all that which is associated with sexuality – both disease and passion (Gilman, 1985). According to Gilman, prostitution in Britain came to be associated with the degenerate lower classes and, as shown previously in this chapter, the lower classes were associated 'scientifically' with 'coloured races'. The scientific discourse concerning the nature of black female sexuality was that of lasciviousness with 'ape-like' sexual appetite. The prostitute had stigmata - black, thick hair, strong jaw, a hard, spent glance, wild eyes (like the insane), and asymmetrical faces that could only be detected by scientific observers - she was an atavistic subclass of women. While in white societies only the lower class women succumbed to prostitution, it was seen as the rule in primitive societies. Simply being more primitive made you more sexually intensive. The qualities of the black female especially are those of the prostitute. 'Lower race' females do not merely represent the sexualized female but they also represent the female as the source of 'corruption', 'sin' and 'disease'.

The primitive female as a sexual object appears in many works of art, such as Gauguin's paintings of Tahitian maidens, and has become a central metaphor for sexuality in some societies. The discourse can also be seen is in the postcard craze around the turn of the century that went with a burgeoning tourist industry (Te Awekotuku, 1991). While many of the postcards and pictures serve as ethnographic representations, others project images of fantasy and desire,

promiscuity and eroticism, exotic and alluring. Te Awekotuku (1991:91) suggests that the colonial photographer set out to deliberately capture the ambiguous image of the Māori woman. Postcards and pictures represent part of the Western colonial gaze, which dwells voyeuristically on native clothing, postures and gestures exoticizing, and eroticising, the female 'Other'. Shohat and Stam (1994) argue that the camera's gaze embodies the over-arching look of the absent/present master spectator. There is an exclusion of any visible male presence at the same time as they position the spectatorial gaze.

Figure 4.1 *Māori maiden of high degree.* Courtesy of the University of Waikato, New Zealand Collection.

Among the early twentieth century postcards were those of Māori maidens with looks that lie within the boundaries of desirability acceptable to the Pākehā voyeur. Most of these were half length portraits in the tradition of other portrait artists such as Lindauer and Goldie (Beets, 1997) (see Fig. 4.1). Many of them represent a feminine ideal of aristocracy, or upper class female, most claiming

them to be a puhi or a princess. The photograph features women with a physical appearance of large eyes, flowing dark hair, light coloured skin, aquiline nose, oval jaw, and a sweet, passive and vulnerable gaze. As became her high status she shows only one or part of a shoulder. Juxtaposed are the images of her uncivilized nature being dressed in native costume with a cloak that temporarily screens the naked flesh underneath. The women in the postcards are not chosen for their Māoriness but for their conformity to a particular European taste in female representation - a fine-boned facial structure and the pale skin contrast with her Otherness of dark hair, eyes and native costume. There is no doubt that many of the 'Māori maidens' in the postcards were the offspring of intermarriage. The offspring of intermarriage were seen as a benefit to the Māori race and a sign of superiority:

> The Euronesians are a very superior race: they inherit the fine physical constitution of the native, with the mental vivacity of the European; and we are encouraged to hope for the legitimate amalgamation of the native and European races at no very distant period. (Brown, 1845:42).

Brown's statement draws attention to the mind-body dualism where Māori were seen as 'bodies' and Europeans were the 'minds'. This meant that intellect was the preserve of Europeans and, as mentioned in the last chapter, inter-racial reproduction was also a means to 'civilizing' Māori by increasing their 'intellect', or mental vivacity, by increasing the proportion of 'white blood'. Donna Awatere (1982:86) explains it thus:

> Since Kant sanitized the senses, the human orgasmic nature has been condemned to the "bad" spectrum of sensuality. It got put away, made sinful. The most powerful 'routine' emotion humans experience has been ignored, and unwittingly pressed into the service of white culture. Through routine orgasmic unity with a white person, the Māori is "purified" into white culture. In crisis, taha white is chosen over taha Māori. Orgasmic unity has done its job.

There were also many comparisons of women from 'mixed' marriages with the women of Southern Europe, Italy and the gypsies (see Buller, 1878; Domett, 1872; Brown, 1845), even among full-blooded Māori. The Reverend James Buller (1878:169-170) commented on Māori women in Rotorua saying:

> There the young girls are like southern gypsies in the colour of their skin - just fair enough to let the warm colour show through the clear olive. Their eyes are dark and lustrous, and their lips have a roseate tint, ... In early life their eyes are soft and persuasive, and some young girls are truly handsome.

The image that is portrayed is the availability of a 'natural' and guiltless sexuality. There is also transference of temptation and guilt that emerges from erotic desire from the white male viewer onto the sensually presented Māori female. Māori

women appear erotically alluring, with their innocence from being 'uncivilised' as part of that allure. Innocence is a desirable state as portrayed by Rousseau in the 'noble' savage discourse, and as such the Māori woman represents that which attracts rather than repulses.

The picture of the younger girls (Fig 4.2) suggest a similar image but through some different icons. The cloaks are 'artistically' arranged to bare as much of the shoulders as possible without being pornographic. However, this is far from the way these cloaks are normally worn by Māori women. The cloaks are worn around the shoulders, often being tied on one shoulder, covering apparel underneath. The availability of the 'dancers' is suggested by the 'Christmas' message (top left-hand corner) and the impudence - the hand on the hip, the direct look at the viewer, the crossing of the legs. The caption "Māori Dancers", along with the state of undress, is suggestive of libidinous natives and promiscuity.
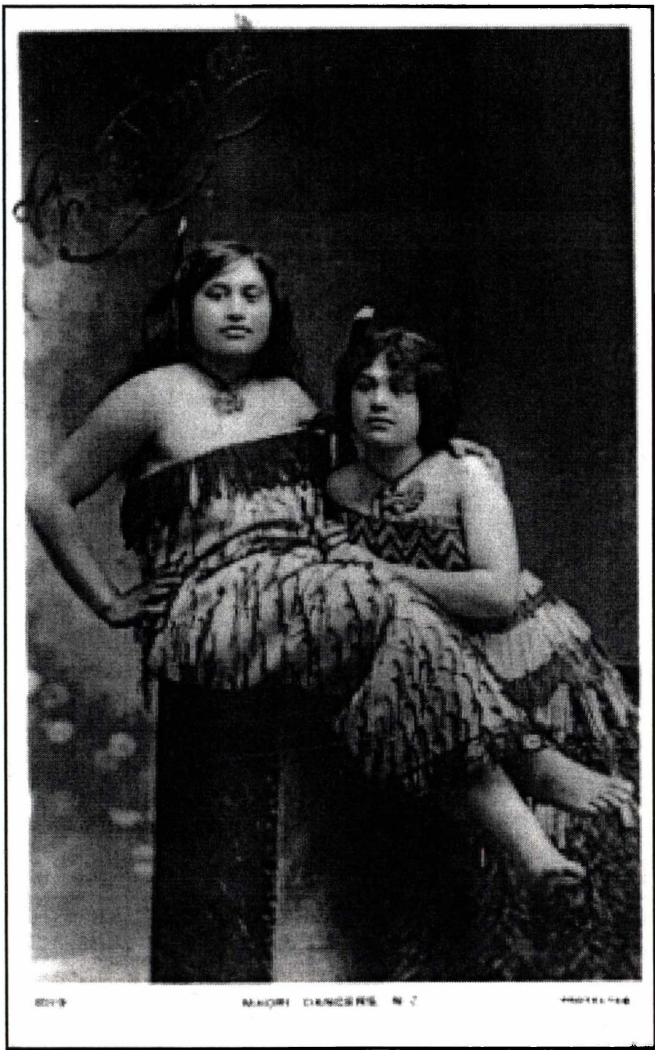
Figure 4.2 *Māori dancers.* Courtesy of the University of Waikato, New Zealand Collection.

In addition, the girl standing looks very young, projecting an image of child sexuality. All these images serve to reinforce the stereotype of native women as sexually liberated, and the colony being a newly opened 'paradise' of enjoyment. The underlying eroticism cannot be divorced from the attractive picture.

Other pictures were taken and painted to convey Māori women as 'sensual and sexual' while simultaneously suggesting 'savagery'. Figure 4.3 is labeled 'Māori Beauty' in the pose of a traditional seductress. Portrayed as 'Eve' or 'Mary Magdalene', the image is of a slightly older woman, than those mentioned above, that suggests she is more 'knowledgeable' than the younger models. The moko, or chin tattoo, is seen as representing a 'soon-to-vanish' exotic past, and an arm raised and resting behind the head, her bold eye contact, bare arms and flowing hair suggest an unrestrained sexuality.

Figure 4.3 *Māori beauty.* Courtesy of the University of Waikato, New Zealand Collection.

The patu or hand club creates an aura of violent eroticism suggesting both savagery and sexual freedom (Beets, 1997). This is more explicit in Louis John Steele's painting *Spoils to the Victor* painted in 1908 (Bell, 1980) (see Figure 4.4).
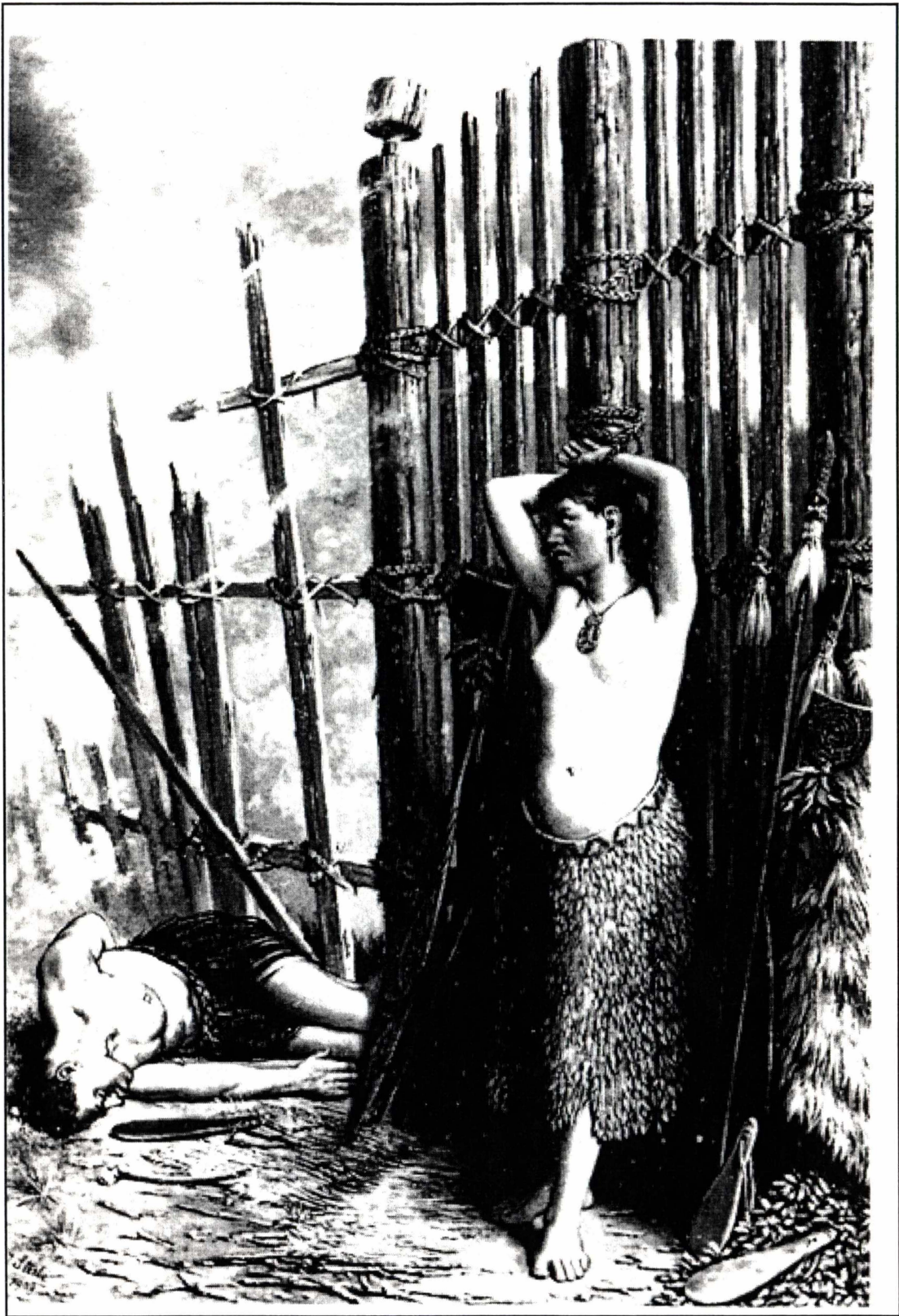
Figure 4.4 *Spoils to the victor* painted by John Steele in 1908. (Bell, 1980)

Exposed to the waist, the Māori woman has her arms raised above her head and tied to the stake fence behind in a pose of exposure and bondage. A dead Māori 'warrior' lies beside her feet, supposedly after a battle and has been defeated. It can be argued that the dead male warrior in Steel's painting is about mimetic desire. In this sense, desire is about rivalry between the spectator we cannot see and the 'warrior', and the 'object of desire' – the native woman - gains its value from being desired by another. The possession of the indigenous woman is equated with the possession of the colony's land. The 'natural' and 'wild' maiden invites the colonial gaze to possess her and, through her, the land. And lastly, the sexual 'availability' of the native woman signifies the absence of an aggressive male society. When the male is defeated, the native female is offered, or offers herself, as a metaphorical war trophy for the white victor.

At the same time, there is a discourse of 'rescue' present as the 'victor' comes to rescue the native woman from the barbarism and savagery of the native man. The discourse of rescue is the same as that of salvation and helps to smooth over the contradictions inherent in violent eroticism. The painting undoubtedly represents the ownership of both native woman and the land – both taken by conquest. In other words, it is the domination and control of 'nature' with nature as female. The familiarity of this metaphor is in the work of Francis Bacon where science is expressed as "leading to you Nature with all her children to bind her to your service and make her your slave" (Bacon, as cited in Keller, 1996:36). The metaphor resonates once more in the words of Domett:

> Till on a startling scene he came,
> That filled his soul with rage and shame.
>
> Her mantle flung upon the ground,
> · Her graceful arms behind her bound,
> With shoulders bare, disheveled hair,
> There stood a Maiden of the land,
> More stately fair than could elsewhere
> Through all its ample range be found.
> (Domett, 1872: Canto I)

This suggests that "sexual difference has been translated into the sexual division of race, so that the white male's object of desire has been relocated across the racial divide" (Young, 1995b:111).

Stoler (1995) argues that while discourses of sexuality were implemented as an instrument of power in the nineteenth century they could not exist without a 'racially erotic counterpoint'. In other words, any discourse of sexuality or object of knowledge must be about someone. She argues that these cannot be established

without reference to "the libidinal energies of the savage, the primitive, the colonized - reference points of difference, critique and desire" (Stoler, 1995:6-7). Postcards, travel brochures and paintings were part of the dominant régimes of colonial representation in an attempt to 'reframe' Māori women. These pictorial forms came to represent 'literatures' of adventure and exploration, the romance of the exotic, and the ethnographic and traveling eye (Hall, 1990). The next section argues that these 'scientific' discourses that helped constitute Māori women in the eighteenth and nineteenth centuries had consequences for their representation in tīkanga Māori (Māori culture).

The expulsion of Māori women in tīkanga Māori

According to the Reverend James Buller (one of the earliest missionaries in New Zealand and spent 40 years here) there was a fundamental understanding to replace Māori beliefs with their own Judaeo-Christian values (Buller, 1878:333). This 'reading' of ethnographic accounts from last century indicates a concerted attack on Māori values and beliefs from the time the missionaries came to New Zealand, and this attack had long-term consequences for Māori women in particular. A number of Māori academics (see for example, Mikaere, 1995; Yates-Smith, 1998; Walker, 1990) have argued that tīkanga Māori (Māori culture) was complex and could not simply be erased by the introduction of another culture. They have argued changes occurred in Māori culture through the missionaries recognizing common features between Māori and Judaeo-Christian spirituality and religion that then became points of entry to insert different beliefs. This section gives two examples of how such a process affected Māori women. Furthermore, I argue that the discourses of Māori women outlined in previous sections were pivotal to these changes.

The first example explores the establishment of a new patriarchal discourse in Māori cosmogony that resulted in the 'expulsion' of Māori women[1]. The insertion of the Judaeo-Christian creation as the work of only one person - a supreme male god – into tīkanga Māori meant Māori women would come to be conceptualized as 'less than' Māori men having been created from 'Adam's rib' (Schiebinger, 1993). In other words, a patriarchal social order of men controlling women and their affairs could be established for Māori women as well as for European women. The second example is one where Māori women came to be conceptualized as 'dangerous' through a discourse of 'dirt and disorder'. Māori

women's roles related to their experience of menstruation, pregnancy, and motherhood was targeted as being marginal to tīkanga Māori.

Of note in this section is the writing of the 'texts' that are being analyzed. For example, it is widely acknowledged that white male ethnographers and missionaries used mainly Māori male informants to write the texts found in the imperial archives (Te Awekotuku, 1991). As a consequence, Māori women rarely feature in the stories relayed and neither do they 'appear' as informants also. In addition, some of the European ethnographers, such as Elsdon Best, Percy Smith and William Colenso, have been widely acknowledged as 'great authorities' on Māori (McDonald, 1922). Many readers in the nineteenth century, reinforced by their social Darwinist ideas, saw these 'experts' as being 'the' authentic Māori source and speaking on behalf of Māori. The 'authorities' were prolific writers of Māori traditions and society. This, in addition to New Zealand's size and relative ease of access resulted in the existence of a larger number of historical accounts of early Māori life than there were of many other Pacific groups. As such Māori peoples and culture have been used, and continue to be used, as 'examples' of 'Polynesian peoples' (for example, see Freud, 1938; Hanson, 1982). The influence of the early ethnographers and missionary writers on defining Māori culture, particularly traditions, has been immeasurable. Today's reader needs to keep in mind that a large amount of work made available through the archives on Māori cosmogony and social laws in pre- and early colonial times has been based on the work of these European 'experts'. Many Māori are now having their traditional tīkanga (culture) taught to them through the use of these texts. Not only is ironical and dangerous but it is, as I will argue, particularly damaging to Māori women.

Displacing women in Māori cosmogeny

Mary Douglas (1966:147) argues that in different cultures the accepted theories of cosmogony give explicit place to sexual energy. Māori culture is no exception when it comes to the symbolism of sex in cosmic accounts. Central to Māori cosmogeny is the idea of whakapapa, or genealogy. Women, their reproductive organs and the birthing process assume major significance in Māori creation stories. For example, Māori writer Māori Marsden has used the metaphor of connecting the beginning stages of the universe to that of a cycle of conception, development in the womb, and birth.

> [T]e Korekore is the realm between non-being and being: that is, the realm of potential being. This is the realm of primal, elemental energy or latent being. It is here that the seed-stuff of the universe and all created things

---

[1] For a more detailed account on the 'loss' and 'recovery' of the feminine in Māori cosmology see Yates-Smith (1998).

gestate. It is the creation from which all things proceed. Thus the Māori is thinking of continuous creation employed in two allegorical figures: that of plant growth and that of gestation in the womb (Marsden, 1992:134).

Other Māori writers have used a similar analogy (see for example, Kahukiwa & Grace, 1984). In these accounts Papatūānuku, the Earth Mother, and Ranginui, the Sky Father, were both conceived during Te Po (the long night) that has been likened to the womb. A number of supernatural offspring, both male and female, were born and destined to dwell in darkness between their primal parents for a long time until Papatūānuku and Ranginui were separated by one of their children, Tane Mahuta. The separation allowed the children to escape eternal darkness and to experience day and night by attaching the sun, moon and stars to Ranginui. Mikaere (1995) has argued that the female reproductive organs form the symbolic narrative for the world coming into being, and the female body remains central to Māori understanding of creation. Furthermore, she argues that the version that appears in ethnographic texts of the eighteenth century show a 'change' - from women being central to Māori cosmogeny, as indicated by the above accounts, to one focusing on men.

Eighteenth century ethnographers Elsdon Best and Percy Smith both claimed to have found the idea of a male supreme being called Io, in Māori cosmogeny (see Buck, 1958:437-438). Peter Buck (1958) also notes that there is a similarity between the revised Māori cosmogeny, which includes a supreme male god, and the first book of the Bible, Genesis. For example, the order in which the water, the trees, animals and so on, appear are very similar, the account suggests only male children were born of Papatūānuku and Ranginui, and women in various places such as the heavens became wives of the male gods or messengers giving them subordinate roles. According to Smith (1913:i-ii), details of this version emerged at a hui (Māori gathering) in the Wairarapa during the late 1850s. Furthermore, it is suggested that the male writers of the 'new narrative' had possibly been influenced by their own education at a church mission school. Hence, in place of a version of the creation story centred on the birth of primal parents from a womb-like existence, there now existed a male being that exerted supreme authority over everything else in a hierarchical structure. In the new version there is no female in the creation of the universe and hence, any form of reproduction, sex and birthing was excluded including the recognition of men having mothers.

French feminist, Julia Kristeva (1982) argues that maternity and pregnancy affirm the corporeality or animality of a woman and as such likens it to the abject. The abject is described as something rejected from which one doesn't part and is

caused by anything that disturbs identity, system or order (Kristeva, 1982:4). Furthermore, Kristeva argues that pregnancy is a borderline phenomenon and suggests that pregnancy and maternity had to be expelled from the Judaeo-Christian Creation stories – covered over and 'cleaned up', hence the discourse of motherhood through the Virgin Mary. I suggest that Māori women's bodies have been 'expelled' from Māori cosmogeny because having women's bodies at the centre of creation narratives belongs to a different type of social organization and if this social order was to be changed a new discourse needed to be introduced. This is supported by Mary Douglas (1966:159) who argues that in an "effort to create a new society ...it was no doubt necessary to establish a new set of positive values ...[and] a virgin source of redemption crushing evil underfoot, is a potent new symbol to present". By presenting a discourse of a virgin birth the body becomes 'clean' to the extent that it is impermeable to any disruption, such as menstruation and birthing, because the symbolic body becomes 'male' – sexually pure and barren. The super-ordination of a single male god, Io, over woman, Papatūānuku, was to make abject 'Māori woman' as a means to change the social order of Māori culture to that of Western or European culture.

For example, the different recordings of the narrative given to the ethnographers of the first act of sexual intercourse between Tane Mahuta and Hineahuone, the first woman, demonstrates how containment can occur. Peter Buck (1958) argues that both male and female sex organs were referred to with frequency in myths, legends and chants, and that references to sexual matters were considered normal in pre- and early colonial Māori society. However, Mikaere (1995) has argued early ethnographers used translations from Māori to English to 'change' the stories and make them less sexually explicit, and in doing so 'covered over' and 'cleaned up' Māori culture. She suggests in the Māori language version, several karakia (incantations) were recited in order to bind Tane Mahuta and Hineahuone to one another, to stimulate them into action and ensure they would be productive. This version has considerable detail about the sexual organs and their functions, and a long descriptive passage with regards to the encounter between the two sexual organs, Karihi (the female) and Tiki (the male). In the English translation, the passage has been sanitized completely indicating that the details of the female anatomy and reproductive powers can no longer be identified. Furthermore, she argues that more recent writings have attempted to reincorporate the description of the act of sexual intercourse into the story of Tane Mahuta and Hineahuone with varying success. For example, Allan Hanson (1982:335) writes that "Tiki attacks bravely, but Karihi draws him further into herself until, spent, he succumbs". However, I suggest that Hanson portrays the female here as the 'seductress',

similar to the biblical account of Eve and consistent with the earlier postcard. Furthermore, Peter Buck's (1958:510) observation that "[i]n sex matters, it is the female organ which figuratively kills its male antagonist", which has overtones of castration and eroticism, while Bruce Biggs (1960:20) describes sexual intercourse between the two as "a pleasure fraught with danger". I argue that inherent in these descriptions is a hierarchical imagery that portrays women as a dangerous and aggressive threat to men – "the *femme fatale* who victimizes men" (Martin, 1996:112). The suggestion that women are passive and men are active is reinforced by the Tiki accounts that support the pre-eminence of the male element over the female element.

The idea of women being passive and men active is evident in other ethnographic accounts and other narratives. According to some ethnographers, Ranginui looked down on Papatūānuku with desire and descended to mate with her. For example, Percy Smith describes the creation story as:

> The Rangi-nui [great sky], which stands above, felt a desire towards Papa-tua-nuku [the earth], whose belly was turned up [towards him]; he desired her as a wife. So Rangi came down to Papa (Smith, 1913:117).

This description suggests that the male gets to act on his sexual desire while the female lies passive below - available, waiting, unresisting, ready - to be penetrated and inseminated in a similar image to 'virgin lands' outlined earlier. Furthermore, the passive/active dualism continues with the creation of Hineahuone, the first woman, by Tane Mahuta from his mother Paptuanuku. Elsdon Best writes:

> The part performed by the Earth Mother [Papatūānuku] was that of sheltering, nurturing, cherishing: she represents the receptive and passive element, while Tane Mahuta represents the active, fertilizing, creative male element. [...] ... Hine-ahu-one was a being partly supernatural or godlike, and partly mortal, or ... of earthly origin. The two were combined in her, and the result was man, the human race ... The seed (or fruit) of the god is with the male, because he is the offspring of the gods. The female sprang from the earth, and with her are the nurturing waters. The blood and vital essence emanated from the god. The female is the shelterer, the one who nurtures, and by whom all things are caused to acquire form and grow. Woman was fashioned after the image of the male, and the seed of life came from Io-matangaro (Io of the hidden face). (Best, 1924:122-125)

In having a supreme male creator, it necessarily follows that the active rests with the male, Tane Mahuta, rather than with his mother. Furthermore, it is clear from this passage of the position of women having been 'fashioned from the earth' and "after the image of the male' is similar to the Judaeo-Christian version of Eve being created from Adam's rib. Mikaere (1995) argues that the importance of all these narratives is that these texts get used to teach Māori, both men and women,

about their own culture and only serve to create ambiguities for Māori women whilst patriarchal views continue to go unchallenged.

Irigaray (1985) argues that in dominant Western thought women are repeatedly represented in such a way that they are reduced to a relation of dependence on men. In patriarchal systems of representation, she suggests, women are submitted to models and images defined by and for men. Women can be represented as the opposites or negatives of men; in terms similar to or the same as men; or they are represented as men's complements. In other words, women are seen as variations or versions of masculinity – through negation, identity or unification into a greater whole. Whenever this happens, the two sexual symmetries are reduced to one, usually the male, which takes it upon itself to adequately represent the other. I suggest that in many ethnographic accounts of Māori creation stories the male is valorized and affirmed through both Karihi and Papatūānuku being 'fashioned after men', that is made from Adam's rib, but 'lacking' a vital difference - a penis. As a result, the females are deprived of the attribute that positions Tiki, Tane Mahuta and Ranginui as the active, desiring subjects. Karihi and Paptuanuku are relegated to the position of castrated, passive subject who seek not to desire but to be desired.

The insertion of Io into Māori cosmogeny was explained by ethnographers as being taught in the whare wānanga, or place of higher learning, and that the knowledge was too sacred for the common people (see for example, Smith, 1913; Best, 1924). Whare wānanga were places where chosen students attended to become steeped in Māori traditions of the tribe. While the vast majority of the students were men, there were women tohunga (tribal historians) and some women recorded as attending whare wānanga (see for example Binney & Chaplin, 1986). However, the accounts of a supreme male god in Māori cosmogeny can only be found in records written by men. The explanation proffered by Smith discursively positioned Māori men with increased status by suggesting that only men had access to higher knowledge and furthermore, they were the only ones who had the right to it. At the same time, as Irigaray (1985) has argued, this privilege works on dependence. That is, Māori woman is defined as 'inferior' at the same time Māori men are privileged. These positions underpin a primary social distinction between Māori men and women and can be used to question women in active roles as contravening traditional Māori beliefs.

Consequently, such an account has allowed Māori men to take control of knowledge production in Māori culture. The similarity mentioned earlier between

the revised Māori cosmogeny and that of Genesis is inextricably entwined with the power of knowledge. In the book of Genesis Adam was formed from earth in order to rule over nature. God then lends Adam his naming authority as a mark of his rule. Eve is called woman because she is taken out of man. The 'discovery' that Māori had a supreme male god was essential for colonization because it allowed an account of Māori cosmogeny to slot instantly into a Biblical framework and enabled many values to become attached to it. This view is supported by paintings such as that shown in Figure 4.5. – William Strutt's painting of *Hare Pomare and family*.

William Strutt, Hare Pomare, his Wife Harriet & Infant Son Albert Victor, with a Māori Chieftain, 1861, oil on canvas, 280mm. diameter (National Library of Australia, Canberra)

Figure 4.5 *Hare Pomare and Family* painted by William Strutt 1863-64. (Bell, 1980:88)

The portrait of a 'paternal' figure - a 'Māori chieftain' – and a protective father both watching over the woman and male child is suggestive of the image of 'Madonna and child' and patriarchal lineage. According to Elizabeth Grosz (1989:155), Luce Irigaray argues 'Madonna and child' images are about The Father and Son while the mother is about link between the two, being the embodiment of the Son as well as the love that links the Father to the Son. In other words, women became the 'vessels' for men's love, which is embodied in the son. In addition, the circular framing of the image is doubly suggestive of both a lens and the perfect shape associated with the 'heavens' (Bronowski, 1973).

This example of Māori women's roles in tapu and noa has shown that through their experiences such as pregnancy, childbirth, and menstruation – those regions inaccessible to men – women bring a power not available to those who have stayed 'in control' inside themselves. With the changes in the versions of cosmogeny there is the erasure and disavowal of Māori women's sexuality. The redefinition and incorporation into the religious discourse of women also divested Māori women of power and influence in their own culture. Furthermore, the incorporation of Judaeo-Christian views into Māori culture enables a means of convincing Māori today that such ideals come from the Māori culture. The next section is another example of Māori cultural change that led to Māori women being 'expelled' from Māori culture because they were deemed 'dangerous'.

Tapu and noa, danger and Māori women

Observances of the Māori social laws of 'tapu' and 'noa' appeared to have perplexed early Pākehā writers and explorers in New Zealand (Best, 1924). There are two types of tapu – intrinsic tapu and tapu as a form of social control. As alluded to previously in this chapter, intrinsic tapu is the recognition of the inherent value of each individual and the sacredness of each life that is gained through the whakapapa, or genealogy, of mother or father or both (for examples, see King, 1977; Jackson, 1992; Binney & Chapman, 1986; Papakura, 1986). While everyone has intrinsic tapu, degrees of tapu differ from one person to another depending on such things as seniority of birth. Intrinsic tapu also extends to bodily functions and wastes, with the head being regarded as the most tapu part of a person. For example, the cutting of hair and nails should be carried out in accordance with certain procedures and disposed of with care as it is recognized that these abject objects still carry the tapu of the person. Jackson (1992:41) suggests that intrinsic tapu is the major cohesive force in Māori life.

The second form of tapu is a form of social control that involves spiritual prohibition or protection and seen in relation to noa (Jackson, 1992). Tapu, in this sense, can apply to people, inanimate objects, places or activities. For example, generally tapu is 'applied' to the immediate family of the deceased at tangihanga (funeral) until the hākari (feast) following the burial. Some places are inherently tapu, such as urupa or burial grounds, while some places can be 'made' tapu for short periods of time, (for example, a beach or river after a drowning), and then 'lifted'. Activities associated with tapu include building and carving whare tūpuna (ancestral houses), the building of waka (canoes), the weaving of korowai (cloaks), and childbirth. This complex order emerged according to Jackson (1992) because, to Māori, spirituality was fully integrated with everyday life. Tapu and noa served to maintain social order and preserve the spiritual balance essential to the survival and well being of community.

In keeping with their own ethnocentric definitions, and similar occurrences in other colonized societies (see for example, Douglas, 1966; McClintock, 1995), some early ethnographers saw tapu as part of an 'old religion' (Brown, 1907; Best, 1924). As a result of the interpretation of 'old religion', the distortion that occurred in relation to tapu and noa is connected to and parallel with the revised Māori cosmogeny. According to Mikaere (1995), the ethnographers and missionaries made two changes with devastating effects for Māori women. First, they confused the concept of intrinsic tapu as it applied to all people with tapu as it was used in conjunction with noa as a system of social control. And secondly, the ethnographers, anthropologists and missionaries perceived tapu and noa as two concepts of dichotomous opposites, or mutually exclusive of one another. This led to tapu becoming associated with sacredness and purity, and noa with profanity and impurity. With respect to weaving J. Macmillan Brown writes:

> For though the women did the weaving, they had to learn it when young from priests with solemn rites and incantations and in a special weaving house. They had, *as mere women and unsacred beings*, to be made holy before entering in; nor were they allowed to touch cooked food or eat during the initiation. They were isolated till it was all over, and then *they were made common again*, and could return to the ordinary duties of the household. They were afterwards *as mere common beings*, needing no ceremonial either to consecrate or deconsecrate them (Brown, 1907:163-4, my emphasis).

This quote suggests that 'commonness' and 'woman' went together unquestioned and that it was men (priests) who had the power and ability to make women 'sacred' from their usual 'common' condition.

According to Derrida (1976) when two concepts are set in opposition to each other there is no possibility of a construction that is neither one nor the other, or which is both at the same time. Dichotomous structures take the form of A/not A in which the first term is positively defined and the other is defined as the negative of the first. In this case, tapu (like virginity mentioned earlier) came to be valued positively while noa was everything tapu was not. The relationship between tapu and noa, when set up in this structure, became hierarchical with tapu being privileged over noa. However, according to Jackson (1992) tapu and noa are not mutually exclusive categories. For example some tapu that is inherent in individuals is retained even though individuals have been subjected to a 'whakanoa ritual', which is the removal of some particular restrictions imposed by tapu. The dualisms of sacred/profane and pure/impure came to be considered as characteristics that got to be assigned to men and women and for each to be treated in an entirely undifferentiated fashion. Mikaere (1995) has argued that what came to be reified in the literature was that males, and their related activities, having descended directly from the gods, were assigned to the institution of tapu. And furthermore, women and their activities were assigned to the institution of noa because they had been created from the earth. The imposition of Judaeo-Christian understandings, and imagery associated with it, was brought to bear on the understandings of Māori culture. Hence, the notion of 'old religion' was more than an understanding of sacred and not sacred, it brought together 'discourses' of women and Judaeo-Christian religion as outlined in previous sections of this chapter.

Freud (1938) claimed tapu had two meanings - sacred or consecrated, and uncanny, dangerous, forbidden, or unclean. Mary Douglas (1966) claims that nineteenth century Enlightenment thinkers saw primitive religions, including tapu, as being inspired by fear or dread, and simultaneously confused with defilement and hygiene. According to McClintock (1995:185) fetishism derives from the Portuguese word *feitiço*, which means sorcery and magic arts. Furthermore, she argues that fetishism became associated with "an excess of illicit female agency over natural and bodily authority" (McClintock, 1995:186). Tapu was written of as a 'fear' and 'disease', as evidenced by Brown (1907):

> Nay, there was developed elaborately, especially in New Zealand, a religious feature that is essentially fetichistic. This was the famous tapu, that fettered life amongst the Māoris at almost every step in it. It was a plague of sacredness. Whoever was sacred infected everything he touched with consecration to the gods. And whatever had thus the microbe of divinity communicated to it could communicate it to other things and persons, and render them incapable of common use or approach (Brown, 1907:78-79).

However, tapu according to this ethnographer was in the realm of men. However, the 'fetish' worship marked an infantile stage of human development and exemplified a form of irrationality. Freud (1938) uses this argument to show that primitive peoples, such as Māori, have a degree of psychical infantilism that is manifested in the observance of the laws of tapu and noa and, hence, have no inherent form of morality because of it. He suggests that 'primitive' societies, such as Māori, employ the laws of tapu as a defense against the desire for incestuous relationships, arguing that tapu and noa are the display of "the horror of incest" (Freud, 1938:17). Making extensive use of one ethnographic account, Freud takes examples of 'fearful acts' in Māori culture to illustrate his points. For example, people dying after eating food from a tapu place such as a chief's leftovers or touching a chief's tinderbox (Freud, 1938:42-43). Furthermore, Freud (1938:51-52) associates the behaviour of Māori with respect to tapu with a fear of contagion and uncleanliness. According to McClintock (1995:187-8) fetishism allowed Europeans to do two things. First, they could draw the unfamiliar and unaccountable cultures of the world into a systematic 'scientific' order, or universe, of negative value. And secondly, they could represent this 'universe' as deviant thereby undervaluing and negating it.

Māori women also have the ability to mediate between tapu and noa. While both men and women perform whakanoa ceremonies, that is, the process to change from a state of tapu to noa, women who are beyond childbearing age carry out most of them (Pere, 1982). The process involves the women drawing the 'dangerous, life-destroying' elements of tapu into themselves, hence the use of post-menopausal women to carry this out. The purpose is to send these elements back to their point of origin, that is, to the world of the gods and the spirit forces (Pere, 1982; Hanson, 1982). Women also had the ability to whakatapu, the process used to change from a state of being noa to one of tapu. For example, when a warrior suffered from weakness or fear before battle, a ruahine (post-menopausal woman) would step over him to make him tapu and restore his courage (Tregear, 1904). Mary Douglas (1966:95-96) argues that the idea of 'danger' does not lie in either the states of 'order' or even 'disorder' but in transition or 'marginal' states. Māori women in their ability to whakanoa and whakatapu occupy 'transitional' or 'marginal' states. For Douglas, 'marginal' does not mean being sidelined or on the edges of society, but carries a notion of being 'placeless'. In addition, Māori women's ability to traverse the spiritual boundaries of tapu and noa in both directions gives them the ability to destroy 'order'. In other words, I argue that Māori women did not fit the patterning of the societies European ethnographers

and anthropologists came from and so their status was seen as being indefinable and, hence, they were considered to be 'dangerous'.

This example is about how the system of tapu and noa in Māori culture can be used to create a new or different social order. It is clear that the 'scientists' of the nineteenth and early twentieth centuries wrote about Māori women as being associated with uncleanliness, profanity and dirt, while Māori men came to be associated with their opposites, such as purity, sacredness and cleanliness. In other words, Māori women are defined in terms of the 'body', associated with corporeal flows of blood (Grosz, 1994). The abject objects that made her contaminating or polluting were those only associated with being a 'woman' – menstruation and maternity. On the other hand, Māori men came to be defined in opposition to the 'body', that is in the 'abstract' or mind. Furthermore, these two states were seen in a hierarchical fashion that suggested that Māori women had 'fallen' from another higher state. However, this was not a journey that was possible to 'reclaim'. As with Eve, the 'sin' will always stay with her, as she will never be able to have the 'clean and proper' body the new social order demands.

In Western culture Grosz (1990) claims there is a cultural 'horror' of menstruation that is not only linked to that of sexual difference. While menstruation marks one difference between male and female, it also marks a difference between male and mothers (or potential mothers). Menstruation links women to maternity or pregnancy without acknowledging women's sexual specificity. Menstrual blood is the living matter that helps to sustain and bring forth life. Grosz argues men's horror of menstrual blood is seen as a refusal to acknowledge the material link to the mother for everyone. Pregnancy also represents the border between one existence (the mother's body) from another (the foetus), which both is and is not distinct from the body. Mary Douglas (1966:143) claims:

> ...when the principle of male dominance is applied to the ordering of social life but is contradicted by other principle such as that of female independence, or the inherent right of women as the weaker sex to be protected from violence than men, then sex pollution is likely to flourish.

This example of Māori women's roles in tapu and noa has shown that through their experiences such as pregnancy, childbirth, and menstruation – those regions inaccessible to men – women bring a power not available to those who have stayed 'in control' inside themselves. The social order of Māori society needed to change in order to achieve male dominance and the ethnographers achieved this by representing Māori women as 'disordered' 'dirty' and 'dangerous'.

Conclusion

In this chapter I have argued Māori women were regarded as sexual 'objects' for the 'sciences' of the eighteenth century. 'Scientific' discourses of Māori women 'saw' them as a body (as opposed to mind) to possess – the property of man – and, as such, their bodies were constructed as passive and reproductive. Early 'scientists' set about to 'expel' Māori women from Māori culture for the purpose of changing the 'social order' to be more aligned with the 'European' culture that the colonizers wanted to set up in New Zealand. The definition of Māori women as 'superfluous appendages' to Māori men, their expulsion from the narrative of Māori creation, and their constitution as 'dangerous' is argued as being related to the masculine fears of women as (potential) mother (McClintock, 1995:73). Māori women's roles in tapu and noa, and its association with menstruation, enabled the early ethnographers to mark 'bodily difference' and give it psychical and cultural significance. Māori women were constituted as 'bodies' – sexual, corporeal, unclean and anti-social.

In the first section of this thesis I have shown how Māori women were 'known' by 'science'. Māori women emerged in the texts of 'science' not with their own voices but mediated through the 'gaze' of white men. When 'scientists' saw the Other, they constructed a representational system that highlighted signs of difference, particularly physical signs such as physical features. In this way, Māori women came to be seen as being pathological. White European males were discursively positioned in the 'texts' by (social and physical) 'scientists' to represent the fully developed human, while Māori women - along with other different bodies – were studied as deviant from the (white male) ideal. In other words, objectivity, reason, mind and the explication of the general was seen as being characteristics of 'white males'. Māori women, as the antithesis of white males, came to be seen as subjective, irrational, body and particular. 'Māori woman' has been represented as 'object' or Other. I have argued that 'Māori woman' is the antithesis to 'European (white) man' and, as such, 'Māori woman' has been constituted by the discourses of European culture regarding gender and 'race', which have been shown to be both fantastical and biological.

The second part of the thesis examines how Māori women are 'come to know' as 'subjects' of science, that is, as Māori women scientists. Chapter Five introduces this by exploring the methodologies used to gather the data and develop the argument. Chapters Six and Seven explore the contemporary colonial subjectivity of Māori women scientists through their schooling and workplace experiences.

CHAPTER FIVE

Addressing the subject:

interviewing Māori women

scientists

In a letter to the editor of *The New Zealand Herald* (1995) on the Māori cervical screening programme a retired scientist, Dr Bob Mann, targets 'feminists' who use Māori culture – presumably Māori women but also inclusive of Pākehā women – in their work. Of issue here for this thesis is not the substance of the 'allegations' but the associations made by the writer with respect to Māori and women.

> The prime movers are not particularly Māoris but feminist fanatics who have been able to set up (relying on the Coney-Cartwright travesty) a cervical screening programme that has done no discernible good. [...] Now, the feminazis are trying, under the ludicrous and irrelevant banner of "Maadi tapu"[1] to suppress not only the Māori figures ... but also the whole caboodle. [...] Useful research cannot come out of secretive programmes designed for the purposes of feminist and racist politics (Mann, 1995).

The target is women, particularly feminists, Māori tapu, and the conflicts between culture and scientific knowledge. When I interviewed Arihia (the oldest woman in the study, with a doctorate in biological sciences) she gave me copies of, and spoke to me about, a series of letters that had been addressed to her, and a number of her colleagues and a member of parliament, regarding a similar issue. The letters specifically targeted her identity and her work as a Māori woman scientist. The letters questioned Arihia's competence at teaching and researching, and her ability to advise in her current community and national committee work. They not only criticized her professional work but did so in a manner that maligned her personally. For example, in one letter Arihia was repeatedly called by incorrect Māori names, in a derogatory

---

[1] The author of the letters, in using the term 'Maadi science', referring to 'Māori science'. The term 'Maadi' is an attempt to mimic the correct pronunciation of Māori. The use of the word 'Maadi' for 'Māori' and calling it a 'craze' further indicates, I think, this person's denigration of Māori knowledge being in any way scientific.

fashion, and was referred to as "extremely irrational and oafish". Furthermore, the letter writer claimed that "she has little understanding of scientific thinking" and refers to work done by her as "this Maadi science craze".

Both these incidents find issue with what some of what the women in this study embody – Māori woman scientists working on issues relating to cultural knowledge and science. However, one is not sure why except the people keep referring to 'Māori', 'women' and 'science'. In drawing an analogy with Homi Bhabha's (1994:86) powerful idea of "as a subject of difference that is almost the same, but not quite", it would appear that 'Māori women scientists' embody much of what is opposite to 'science'. Like Valerie Walkerdine's (1990) woman teacher, the 'Māori woman scientist' appears to be an 'impossible fiction'.

Together the letters tend to reduce Māori women scientists to a list of racist generalizations and stereotypes – Māori, woman, irrational, backward and lazy – that have been used to subjugate Māori women from the time of colonial contact as I have argued in previous chapters. Conversely, to be a scientist is to be intelligent, rational and progressive, which suggests a Māori woman cannot be a 'scientist'. Frantz Fanon (1967:110-112) writes about a similar experience about being identified with stereotypes in 'white man's eyes'.

> And then the occasion arose when I had to meet the white man's eyes. An unfamiliar weight burdened me. The real world challenged my claims. In the white world the man of colour encounters difficulties in the development of his bodily schema. [...] I was responsible at the same time for my body, for my race, for my ancestors. ... I was battered down by tom-toms, cannibalism, intellectual deficiency, fetichism, racial defects ....

As Fanon suggests the stereotypical subject-positions simultaneously construct the 'raced' (and 'sexed') object and deconstruct the 'raced' (and 'sexed') subject. This suggests that the Māori women scientists must dismantle themselves as 'objects' and (re)construct themselves as 'subjects'. That is, they must first insist on what they are not and then affirm what and who they are and their place in historical space. The two processes – denial and affirmation – are inseparable and, hence, require the women to imagine something they are not in order to deny it. This double process, then, highlights a differentiation or 'doubling' of the subject – the subject that speaks and the subject that is spoken about. Elizabeth Grosz (1989:237) explains it thus: "One subject is the subject of the production of discourses and the other is the subject of the statement, the 'I' internal to the discourse".

110

The Māori women scientists get to speak here in a way that is not acceptable to the usual academic discourse of science in which the focus is the separation of subject and object - that is, to hide or ignore the subject in favour of the subject matter. This section of the thesis opens a space for Māori women scientists as subjects and to 'show' their brown body under their white coat. In this chapter I will outline the methodology used to investigate and interpret Māori women scientists' lives through speaking with them and listening to their narratives. First I discuss the ambivalence or 'doubling' produced through interviews, and the implications this has for researching the subjectivity of Māori women scientists. Secondly, I explore the implications of whakapapa (genealogy) for subjectivity – encompassing subjectivity across time and place, individually and collectively, and in imaginary and concrete ways. Following this I draw on analogy between the Māori concept of karanga (to call out) and the social scientists' notion of interpellation. Using these I explore the issues of inviting Māori women scientists to take part in the research project and their responses.

'Doubling' the subject

To be a 'fiction' relies on the splitting or doubling of the subject, so well illustrated in Fanon's (1967) *Black Skin, White Masks*, where the subject occupies two or more places at once. While Section 1 explored the 'subject-position' of Māori women in the historical 'texts' found in the archives, this section focuses on how splitting or doubling can be theorised in the interview situation. In interviews the subject is present at the formation of the text, when words are 'voiced' onto tapes. However, they move out of the frame when the words are transcribed and are given over to the institutional context. In other words, in the process of giving an interview the subject 'splits' or is fragmented. Spivak (1990:35) describes it thus.

> ... speech is structured according to those structures in writing that are generally denigrated as non-spontaneous, dead. Speech cannot be understood if there isn't a pre-existing code which is institutional, and to conceive of the living present, the subject has to understand her own death. Any articulation of the living present in the stream of speech makes you understand that there was a 'present' before you and there will be a 'present' after you. In order to conceive of the continuity and spontaneity of the interview as speech, the speaker must irreducibly, structurally assume her absence before and after. Our access to spontaneity in speech is actually governed by those structures which one associates with writing.

Here Spivak argues that speech itself allows for subject fragmentation much in the same way as writing. This suggests that the differences between writing and the spoken is one of degree rather than kind because speech operates by the same code as writing, and particularly so once it is transcribed and circulated in an institutional context. But in distinguishing between speech and writing she states

> ... [interviews] teach me things not only about myself, but about things I've thought, ... It's always interesting to see one's own slips, or, where one falls back. These are things you don't really get in other situations. It is a wonderful way of 'othering' oneself" (Spivak, 1990:36).

Spivak is suggesting here that the 'slips' and 'fall backs' are specific to spontaneous language, such as interviews, and that these violations are conditioned by "a whole variety of psycho-social, ethno-economic, historical and ideological strands" (Spivak, 1990:36). In suggesting speech as a way of 'othering', she implies two things. First, a psychoanalytically informed analysis of 'speech text' can bring a better understanding of one's own subjectivity and secondly, there is continual negotiation between her 'speaking' self and her 'other' across and within speech and writing.

In recognising the role of the 'unconscious' in the constitution of the subject this work rejects the humanist assumption of an essential self to incorporate a more complex, ambivalent, contradictory mode of representation (for example, see Kristeva, 1982; Henriques et al, 1984; Irigaray, 1985; Weedon, 1987). Chris Weedon (1987:32) refers to subjectivity as the "conscious and unconscious thoughts and emotions of the individual, her sense of herself and her ways of understanding her relation to the world". Subjectivity for poststructural feminists carries the idea of movement – an ongoing process of engagement – which results in subjectivities being ambiguous, ambivalent, multiple, slippery, unstable and persevering (Davies, 1994). This ability of the subject to 'split' and become 'multiple' implies that subject positions can never be the 'same as' the subject but will always be too much (an over determination) or too little (a lack). As a result a psychoanalytically informed articulation of the subject emerges in the space of the splitting – a degree of 'play' or 'différance' (Derrida, 1976). Furthermore Sidonie Smith, in her work on autobiography, argues that located in a space between what is remembered and what happened "the narrative 'I' becomes a fictive persona" (Smith, 1987:46).

The interviewing of Māori women scientists about themselves can be seen as both an 'othering' of the self, as referred to by Spivak above, and 'othering' in another way. While the women were given some parameters about what they spoke about [see

Appendix B], they do speak about themselves, decide how much they want to tell, and what they want to tell within the 'topic'. Their narratives can be seen as being 'autobiographical'. At the same time, the women are in 'dialogue' with me - the interviewer – who will be another 'other' through whom she works to identify herself. In this way, the Māori women scientists address themselves to what I call a 'doubled other' by speaking themselves to '(an)other' to write. While interview text is a 'textual self-representation', the final analysis is not. These women's narratives of themselves, while not able to be fully subjective or transcendent of discourse, must be seen as productive of a "countersentence" (Spivak, 1999:287) to discursive formations. Casey (1995/96:232) argues that interviewers need to see their narrators as "subjects creating their own history" and, as such, creating their own version of their subjectivity.

A performance of the doubleness or splitting of the subject is enacted in Donna's interview. The youngest woman in the study, Donna spoke about pronunciation of te reo Māori (Māori language) in her workplace.

> ... all our servers on our computers are Māori names and I have a lot of trouble ... I would say 'Kauri' to them [her colleagues] and they wouldn't understand. So I'd sit there and think, 'how do they pronounce it' and I choose not to pronounce it in a way a Māori would but from their point of view. *I disown my Māoridom for a second.*

To 'disown her Māoriness' is to issue a challenge to see and not see what is visible and invisible – Donna's 'Māoriness' is obvious to the I/eye. There appears an impossible disembodiment. However, Donna both absents her Māoriness while her 'Māoriness' can circulate without being seen. Her 'disowning of her Māoridom for a second' is a "simultaneous marking of the possibility and impossibility of identity, presence through absence" (Bhabha, 1994:52). Furthermore Bhabha suggests it is like 'seeing a missing person' - the 'I' that is spoken is not the same 'I' of the speaker. It is a simultaneous alienation of the eye/I. What is interrogated here is not the image but the discursive and disciplinary space from which questions of identity are strategically and institutionally produced. As well, the suggestion that the 'spoken subject', like the written subject, is a necessary fiction – a (re)construction of something that has gone before – opens up the possibility of several narratives being told by the subject about herself. That is 'multiple subjectivities' or multiple positions and their strategic use.

These 'multiple subjectivities can be sometimes competing – "as her subjectivity is displaced by one or multiple textual representations" (Smith, 1987:47). However, it is important to emphasize the agency of the speaker and the 'choices' she makes in relation to those different selves, particularly how they might function in relation to the construction and protection of the self as subject and the possible disavowal of the Māori self. For example, one's sense of identity can, and often does, shift over time. Sometimes it is just small shifts and at other times it can be quite profound. This ability to change was illustrated to me quite simply by one of the women I interviewed. She wrote me a letter when she returned her transcript to say that our interview had moved her to enrol in and start attending Māori language classes - an issue that she had never given a lot of attention to in the past. She had moved from identifying as a Māori woman scientist where Māori language had played no role in that identification to one where it did. The learning of another language has the potential to make some very profound changes to how she sees herself and her relationship to the world. Sue Middleton (1993), in her research on feminist teachers, argues that the interview process sometimes allows subjects to make connections between the personal and the political or social in ways they have not necessarily done before and that this can sometimes result in changes.

Yamamoto (1999:74) argues that poststructuralist accounts of subjectivity that "privilege indeterminacy, fragmentation and the infinite deferral of a 'self' and valorize 'difference' as the site of multiplicity and provisionality" cannot be approached uncritically by subjects who are marked by 'race' and 'gender'. She writes

> As Gayatri Spivak observes, much current theory tends to reassert the sovereignty of the (white, male, propertied) Western subject, even as it claims to undermine coherent subjectivity by defining it in terms of 'subject-effects' … For subjects marked by race, or by gender and race, fragmentation is often the condition in which they already find themselves by simple virtue of being situated in a culture that does not grant them subjecthood, or grants them only contingent subjectivity (Yamamoto, 1999:74-75).

The idea of the unified self largely ignores the extent to which history and language construct the subject, leading to essentialisms. Conversely the fragmentation of the subject also tends to undermine any attempt to integrate disparate aspects of being and bring them to bear on a sense of self. For example, the poststructuralist multiple subject positions depend on a coherent subject being 'taken apart', but what of a subject that has never experienced such coherency? In other words, Yamamoto

(1999:75) is suggesting that the poststructuralist notion of the subject has been constructed from a position of "Western or dominant culture".

Frantz Fanon (1967:109) argues that fragmentation, or the negation of subjectivity as he sees it, undermines the very possibility of being:

> Sealed into that crushing objecthood, I turned beseechingly to others. Their attention was a liberation, running over my body suddenly abraded into nonbeing, endowing me once more with an agility that I had thought lost, and by taking me out of the world, restoring me to it. But just as I reached the other side, I stumbled, and the movements, the attitudes, the glances of the other fixed me there, in the sense in which a chemical solution is fixed by a dye. I was indignant; I demanded an explanation. Nothing happened. I burst apart. Now the fragments have been put together again by another self.

For Fanon, to celebrate the fragmented subject is to celebrate his or her own dismemberment and privilege those things that deny subject status to the racially marked and gendered body. Subjectivity here must be 'put together' again by 'another self' suggesting both the provisional nature of the raced self and the continual process of reconstructing this self from his/her own burst fragments. At the same time, Fanon recognises a fluid subjectivity that refuses the totalising, essentialist discourses that have formed the cornerstone of racist discourses. Related to this is the argument suggesting that poststructuralist discourses lack "that perspective of depth through which the authenticity of identity comes to be reflected in the glassy metaphorics of the mirror and its mimetic or realist narratives" (Bhabha, 1994:48). In other words, to draw on mathematical metaphors, the immediate translations, refractions, mirror images and tessellations of, and within, the construction of the poststructuralist subject ignores the qualities of the person – the depth of character and inwardness. At the same time, Bhabha (1994) recognises this in arguing that occupying multiple positions brings with it a form of disarticulation that makes the colonial subject difficult to place, as they become an incalculable object. Patricia Williams (1991:256) sums up the ambivalence of occupying multiple positions while simultaneously being reminded of 'residing' in a marked body:

> While being black has been the most powerful social attribution in my life, it is only one of a number of governing narratives or presiding fictions by which I am constantly reconfiguring myself in the world. ... The complexity of role identification, the politics of sexuality, the inflections of professionalised discourse - all describe and impose boundary in my life, even as they confound one another in unfolding spirals of confrontation, deflection, and dream ...

For Williams, the attribution of being Black constitutes only one of many "presiding fictions". While 'being Black' acts as an over-arching powerful and continuous

framework it is also paradoxically a resource – the means by which transformation becomes possible. In other words, 'being Black' is a mobilising fiction – one by which her reflexive re-configuration proceeds. In the same way, the Māori women scientists in this study use being Māori women as a means of refiguring the discourse of scientist and vice versa. For racially marked and gendered subjects the body itself is a contested site of subjectivity. It is to this that I now turn.

The 'subject' of whakapapa

As argued above, poststructuralist ideas of subjectivity rest mainly on theories of the self, which are inadequate for theorising Māori women scientists. For example, while theories of the self extend 'down' within the individual being, from conscious to unconscious, they do not extend across time, from the present to the past. For Māori women, that extension from past to present is embodied in whakapapa or genealogy, and for racially marked subjects this is both historical and corporeal. Furthermore, the theories based on individualistic notions of the self do not account for a connection of the individual to the group within and across time. Through whakapapa the individual is connected to other groups and a collective. Hence, another 'split' occurs for the racially marked and gendered subject. While the body is a contested site it cannot be understood without its specific historical and social conditions.

The idea of historical connections emerged from some of the women in their interviews. Maryanne had a framed picture of her great-grandmother, Hēni, which she had placed on a ledge above the desk so that she 'watched over us' where we had our interview. In talking about her reasons for going into science, for example, Maryanne felt it necessary to give an historical account of this event.

> Why I went into science was ... I'm in natural history ... it's a field science, and I think that I got into it because I enjoyed going out in the bush and being with nature. My mother's mother, who is the daughter of Hēni as an older woman, mature woman, [she] was interested in botany. I think she came to it through painting; she painted orchids from the bush. Her name was Mary and now I'm Maryanne. I am named after her. She went to university as a mature woman and did a few papers in botany because she wanted to be scientifically accurate in her painting. So my grandmother was interested in plants. There was another daughter [great aunt] who painted insects. And so these women used to go off on these little field trips and collect their bits and do their paintings ... I did the illustrations in that book. I don't know if this comes further back, but it certainly comes from my grandmother, who was her [pointing to the photo of Hēni] daughter. I don't know what happened in the

previous generation, whether they had an interest in natural history or not, but certainly we could interpret it like that, couldn't we?

Maryanne's appeals to whakapapa or genealogy as one of the reasons she 'took up science'. Maryanne had brought to the interview a partially written copy of her whakapapa that showed her lineage from these women. Also of interest is that Maryanne speaks of her grandmother who "went to university as a mature woman and did a few papers in botany because she wanted to be scientifically accurate in her painting". This suggests that there were Māori women in university science study but such detail has been 'an absence' in our historical records. The personal narratives of these women are appropriate ways to challenge the accounts of Māori women written by 'white' historians and anthropologists. The promise offered by this 'oral history' is to restore the ordinary, and sometimes the extraordinary, lives of historically 'lost' voices and fulfil its promise of "brushing history against the grain" (McClintock, 1995:310).

Maryanne not only suggests historical connection but also familial connections, which imply a wider 'family' grouping and/or community. Doris Sommer alludes to this wider view of self in her work on Latin American *testimonios* (heroic life stories of poor indigenous militant women). She writes:

> ... her singularity achieves its identity as an extension of the collective. The singularity represents the plural not because it replaces or subsumes the group but because the speaker is a distinguishable part of the whole (Sommer, 1988:108).

In other words, she identifies the possibility of a 'collective self'. The label 'Māori' is simultaneously applied to individuals as well as a 'collective'. Many of the Māori women scientists emphasize inter-subjectivity through relationships of whakapapa, whanau (extended family) iwi (tribe), and other Māori communities. For example, several of the women spoke about taking their skills to work for the benefit of Māori groups and some specifically for their tribal affiliations. However, the 'collective' can even spread wider than familial groupings. For example, Te Awhina speaks about her experiences in first year science courses:

> ... to me all the Pākehā people that were taking science seemed really brainy and I don't even understand what's going on here [in class]. I'm not asking them because I am going to feel dumb because they're asking all these questions at tutorials that seemed like 'where did you get from?' I just thought *I'll talk to these Māoris [because we've] got something in common, we're Māoris.*

117

For Te Awhina, just being Māori was an invitation to be part of a collective subject – "something in common" – that gives us a bond of familiarity and comfort. John Rangihau (1975), in his seminal article 'Being Māori', strongly emphasises his identity and commitment to Māori is linked to notions of community, in particular kinship but also in how it can reach out to others. Doris Sommer (1988:111) argues that the 'collective subject' is not as a result of personal preference on the part of the individual but a translation of a "hegemonic autobiographical pose into a colonized language that does not equate identity with individuality". She suggests that while the women speak in the first person singular they are simultaneously relating a plural history. The 'collective subjection' of Māori is crucial and inescapable ground for the construction of the self.

Calling Out(siders)

The art of 'calling out' – a formal call of welcome - in Māori society is called a karanga. In Māori ceremonial meetings, the visitors to the meeting place (marae) are called to by the voice of the kaikaranga (caller) – a Māori woman. Māori linguist Sam Karetu (1977:32) argued:

> It is in the karanga one will hear much of the beauty of the language, and experience some of the most moving moments of Māori experience. It is in the voice of the caller herself and what she says that arouses the emotions.

The wording of the karanga is different for differing purposes and whether she knows the visitors or not. For example, a very formal karanga is made to people who have no connection to the marae and if the people were coming to a tangihanga (funeral) it would be different again. The calls are not learned from books but from the women who know what to do, hence, they are transmitted orally to the next generation of women when it is their turn to assume the role. Furthermore, once the women of the marae have called to the visitors, the women of the party coming onto the marae then call back in response to the karanga they have received. The first call of the visiting women is always a call of farewell to the dead, whether there is a corpse on the marae or not. In Māori protocol one always acknowledges the dead – those of the marae as well as the dead 'on the shoulders' of the visiting party. After the call to the dead is the call to the living, the reason for coming and a silence in memory of the dead on both sides. The karanga is considered as part of the oral arts in Māori society - an expression of Māori thought, feelings and imagination (Dewes, 1977). Māori oral art is characterised by the significance of the actual performance and delivery. The

karanga carries with it noise, speech, chant, melody, and gestures, alongside weeping, wailing and laughter. At the same time the karanga is about connecting the two groups together, the 'home' group and the visitors.

The karanga is as much about Māori women's subjectivity as well as making calls to Māori women scientists to become part of this project. Amina Mama (1995), in her work on Black British women, reminds us that subjectivity is produced both collectively and relationally through encounters and connections. The karanga, and the whaikōrero (speech making) that occurs following it, always refer to previous encounters and/or connections between the groups. It becomes the basis for the establishment of and the building of further relationships. In this sense, subjectivity can be expressed through the interview encounter and can be enhanced through the relationships between interviewee and interviewer, and the questions or areas explored. Many of the relationships had been established previously, in that I knew some of the women before they took part in this research. These I approached on a personal basis. Others I did not and had to put a different call out for Māori women scientists in order for them to respond.

The act of calling out to Māori women scientists, through speech or writing, and their responding 'interpellates' them and myself simultaneously and in a reciprocal manner. Poststructuralist writers (see for example, Butler, 1997; Ellsworth, 1997; Haraway, 1997) argue that such a call means to 'interpellate' a subject. Drawing on the work of Louis Althusser, Donna Haraway (1997) argues that 'to interpellate' has a double meaning. First she writes "interpellation occurs when a subject, constituted in the very act, recognizes itself in the address of a discourse" (ibid:50). In such a way, my sending out letters to Māori women I knew to be scientists and asking institutions to circulate notices calling for 'Māori women scientists' for my doctoral project, is a discursive address to anyone who 'recognizes themselves' in this way. In other words, I needed to consider the possibility that my project could have 'created' identifications and identities of some of the Māori women scientists. The response of the Māori women scientists to these calls – the act of getting back to me – was an act of recognizing themselves in the naming as well as my own placement. Elizabeth Ellsworth, calling this act of interpellation communicative dialogue, draws an analogy with a postal system:

> You can't, in other words, send a message to a place that the postal system doesn't recognise. The other has to already be on the map someplace if you are going to send a message to her. And the sender must know the address, the

119

map, in order to send the message. ... It places the call inside a closed circuit, already addressed to someone whose whereabouts (within networks of knowledge, power and desire) are already 'known' in the pre-mapped territory (Ellsworth, 1997:84).

The fact that the return message arrives back to the same place the call came from only serves to confirm places or positions within discourse. That is, the recognition of the call is the act of interpellation.

Secondly Haraway (1997:50) suggests interpellation "is an interruption in the body politic that insists that those in power justify their practices". This reminds us that narrative interpellates readers into the narrator's project and, by extension, the political community to which she belongs, something supported by Casey (1993) in her work with Black women teachers in the United States. This interpellation produces the possibility of complicity. It is a reminder that 'those in power' may be 'we' who doing the narration and that we need to be vigilant about not being deaf to interruptions. Hence, interpellation is double-edged in its capacity to 'hail' or call subjects into existence. Haraway (1997:50) goes on to state, "Subjects in a discourse can and do refigure its terms, contents, and reach. In the end, it is those who (mis)recognize themselves in a discourse who thereby acquire the power, and responsibility to shape that discourse". It appears from the events at the start of this chapter that shaping what it is to be a 'scientist' could be considered a 'high-stakes game'. Judith Butler (1997:5) writes that the exchange by which recognition is proffered and accepted means that, "interpellation – the discursive production of the social subject – takes place". However, Butler (1997) offers a word of warning with respect to interpellation arguing that it relies on a prior formation of 'conscience'. In other words, in order for the subjects to recognise themselves – that is, to turn –he or she must have already understood the call and its operating function within workings of power. However, Butler argues that the theory of interpellation is dependent on, but can give no account of, power and its workings.

The women I 'called out' to had to self- identify as Māori women and willing to speak about it to the researcher. In addition, the women had to be involved with (working or studying in) science with science qualifications, preferably at a higher degree level, or they had to have made a commitment to working in science research for a lengthy period of time. I included research laboratory technicians (often very specialised in their fields), students studying for masters or doctoral degrees, and Māori women who held the title 'scientist' through job description and/or doctoral

120

qualifications in a science field. I decided not to include teachers with postgraduate science degrees and nor did I include the medical profession. While roles of teaching and nurturing have also long been considered as part of women's roles (Middleton, 1993), I was more interested in science as a discipline as opposed to science being disseminated and applied in other fields such as education. In addition, there is a growing body of literature in the field of Māori women and health but little with respect to Māori women and research science generally. Contacting and finding out about Māori women in science was relatively easy. I began with personal contacts as I had made a number of contacts over the years due my involvement in science teaching that could be used to lead me to other contacts. This has a snowballing effect. At the same time I wrote a letter addressed to the Chief Executive Officer (see Appendix A) of every Crown Research Institute (CRI), as these are the biggest employers of research scientists in the country, and asked each of them to advertise my search for participants in their in-house newsletters and bulletin boards, etc. This was followed up by phone calls by me or to me by someone in their Human Resource team.

Answering the karanga

The women who responded to the call for Māori women scientists answered in many ways. As with this research one has to remember that there is a dynamic of interpellation and misrecognition that can operate, especially when there is not a proper name used but a social category. Such is the case with 'Māori' and 'woman' in particular because they are signifiers capable of being interpreted in a number of divergent and conflictual ways. For example, Maryanne wrote to me saying that she would be pleased to help me with my research on Māori women scientists but suggesting that she may not be "the kind of person you are looking for". The reason for this was that Maryanne is 'one-sixteenth' Māori but she goes on to say that she is "very proud of that little piece, being a direct descendent, all in the female line, from Kahe te Rau o te Rangi who was one of the few woman signatories of the Treaty [of Waitangi]". In this response Maryanne was acknowledging not only her whakapapa but also the dead she carried 'on her shoulders'. Furthermore, Maryanne decided to leave the decision to me as to whether I would like to add her to my list of interviewees to be included in the research. The implication was that maybe I would consider her to be 'not Māori' or 'not Māori enough'. In her interview material Maryanne refers to herself as "Pākehā" quite often because of a lack of "Māori

121

influence at home". So while responding to the call, there is much ambivalence about the identification. In contrast, Maryanne recalls an incident at secondary school where she felt the brunt of what she thought was a 'racist' interpellation:

> I do remember once later on at secondary school getting a racist remark from a fellow pupil. She said "Māori!" like this.

The use of signifiers can cause some hesitation about how to respond because one needs to decide if the call is politically enabling or paralysing (Butler, 1997). The temporary call is a totalizing reduction of one's identity – an act of violence. Furthermore, Butler (1997:97) argues that "identity can never be fully totalized by the symbolic, for what it fails to order will emerge in the imaginary as a disorder, as a site where identity is contested". Having used the signifiers in calling my subjects 'Māori women scientists' the following chapters use schooling and workplace experiences to both identify and contest the 'totalizing identities' expressed in the naming.

Judith Butler (1997:107) argues that the 'turning around' is an act that is conditioned both by the 'voice' of the caller and the 'responsiveness' of the one called. I have known some of these women for a considerable length of time and others were 'strangers'. The 'intimacy' in the group 'Māori women' is common in small communities such as those in Aotearoa New Zealand. The country is small, the population small and identifying as Māori women makes it even smaller and the stories I wanted from the women encapsulate our relationships in many diverse ways that go someway to explaining their turning to my voice. For example, some of the women I can whakapapa to (connect to) through tribal affiliations, others I have known for a long time on a professional basis, some are personal friends of siblings and in-laws, and yet others I met in the course of the research. As a woman who identifies as Māori and who carries visual markings as such, I felt some affiliation with these women as, indeed, they felt with me. Madeleine speaks of feeling 'safe' in the context of attending a meeting of Māori women at a science conference in 1995:

> At the Women's Science conference where I first met you I only went along 'cause I [saw] white people identifying themselves with Māoris. I thought if they're going I may as well toddle along and see. So I think sometimes I'm in numbers and feel safe then maybe I'll turn up. But I 'feel along' a lot.

For Madeleine she 'turned' because she saw 'other white people' identifying as Māori women. Safety here encapsulates the idea of acceptance into a group. For these women it meant self-identification as Māori women to be included into the project. Their identification with me as another Māori woman signalled the notion that there was an unspoken bond between us. The recognition of this unspoken bond, however

tenuous, is one to be respected and dealt with carefully. It is an ironic twist in the thesis that aims to reject the assumption that Māori women are homogeneous (Mohanty, 1991; Irwin, 1992). I needed to keep in mind that telling life stories is about a 'negotiation of power' (Casey, 1993). Telling a story to a friend is riskier than telling it to a stranger.

I interviewed sixteen Māori women scientists for this study. At the time of interviewing, during 1996, the women were aged from 51 years old (born in 1945) to 21 years old (born in 1975). Eight of the women were working for Crown Research Institutes (CRIs) and one was a private researcher 'attached' to a CRI. Of these nine women four held the title 'scientist' while the other five were technicians. One 'scientist' was working full-time and studying part-time for her doctoral degree when I interviewed the women. One of the sixteen women is a lecturer at a university and five were studying full-time at university for postgraduate qualifications. Of the five women studying, one was studying fulltime on a doctorate and four were studying for Masters degrees. All have successfully completed their postgraduate qualifications as I write this chapter. Three of the four masters students were also working part-time as technicians for CRIs. The sixteenth woman worked for a private company. She had an honours degree in science and had been awarded a doctoral scholarship that she was considering deferring for a year at the time of the interview. Hence, the women's science qualifications varied considerably.

Table 5.1 Māori women scientists' qualifications

Name	Qualification	Name	Qualification
Marie	B.For.Sci (Hons)	Sue	M.Sc.
Donna	NZCS (in progress)	Ana	B.Com, M.Phil
Maryanne	Ph.D.	Helen	Ph.D.
Caroline	Ph.D.	Aroha	B.Sc.
Maia	BTech (Hons)	Sophie	M.Sc.
Madeleine	Ph.D.	Jane	M.Sc.
Diane	NZCS, B.Sc. (in progress)	Katerina	M.Sc.
Arihia	Ph.D.	Te Awhina	M.Sc.

Three of the women had completed doctorates, three had masters degrees - two of which were studying for their doctoral degrees (both have since successfully completed), five were doing masters, three had bachelors degrees (two with honours),

123

one had an New Zealand Certificate of Science (NZCS) and some papers towards a Bachelor of Science, and one was completing her NZCS. While five were studying full-time (one on the doctorate and four on the masters degrees), three were studying part-time while working full-time (one on the doctorate, one doing masters and one doing NZCS). Three of these eight women studying were solo parents with major responsibility for raising their young children. Since the completion of interviewing, all the students studying for their master's degrees have completed successfully, however, despite expressed aspirations to carry on to doctoral study none has managed to enrol at this stage.

The women were drawn from all parts of the country - from Dunedin to Auckland - although the majority of them came from the north of the North Island reflecting the population distribution of Māori. For all of the women who lived outside Hamilton, I visited them in their place of work or where they lived – the location was their choice. In the case of those who lived in Hamilton, I offered to meet them at their workplace, their home or my office - wherever they chose. Three of the 16 met me in my office, six of the women chose their homes and seven chose their workplace, usually their offices. Two participants opted to be interviewed together while each of the other participants was interviewed one-to-one. In every case, I followed up our initial verbal or email contact with a letter to formalise and confirm details (see Appendix B). The letter spoke in more detail about the project – issues of consent including a form to sign, an information sheet (see Appendix C) to fill in asking for whakapapa (tribal affiliations), and their education and employment records and qualifications, and questions that I planned to ask the women when I met them. This was so that the women could have the opportunity to think about what I was going to ask them before I came. In particular, the questions covered four broad areas of interest: their family background, their educational background, why they chose to study and work in science, and experiences of being a Māori woman scientist. Upon meeting with them I reiterated how I saw the research and the reasons I was doing it. The women also had been sent a consent form that I ensured was signed before the interview took place (see Appendix D).

Many of the interviews began with the sheet they had filled in prior to my arrival. We spoke of their family background, their schooling experiences and their early interest in science. I then went on to their experiences as Māori women scientists, what it meant to be one and how their work reflected who they were. A small tape recorder

was used which was left running throughout the session. Each interview lasted up to 90 minutes. I decided to stop after 90 minutes deciding that there would be more than enough data, but most finished in the allotted time. In addition to the tape recordings I made notes during the interview and immediately afterwards. This helped to maintain an impression of atmosphere and, in particular, to note what took my attention throughout the interview. If I was driving back from an interview at night, whether to Hamilton or to where I was staying, the notes often took the form of speaking into the tape recorder and then having them transcribed. At other times I wrote in the hard covered book that I took with me.

The interviews were all transcribed word for word by professional transcribers. I then edited the transcripts while listening to the tapes. Some of the Māori women had a high usage of Māori words in their talk and sometimes the transcribers had difficulty in picking up the words. Hence, I was able to fill in some words. Difficult place names, not shown on maps I had at hand, were highlighted in the text. After I had gone through each transcript it was returned to the woman to check. I asked each woman to fill in any words I could not capture on tape, to check for accuracy, and also to add or retract anything that they no longer wanted in the text. The women were allowed to keep their transcripts if no changes were required. Other women wanted changes, which were made and then returned to them. I did not proceed until everyone had notified me that they were satisfied with their text. The texts of the transcripts, along with the field notes and letters and notes that have been sent to me have become the source of data – the text to be 'read' and deconstructed.

The recording of, and writing about, the narratives of Māori women scientists is significant in that their lives are simultaneously "both the outcome of the struggle and the locus of the struggle" (McClintock, 1995:310). The intention of gathering personal narratives is not to recover any 'authentic' voice of the silenced, the disenfranchised, or the abject. The Māori women scientists in this research have not been silenced because of their education or status in life. These women are not 'subaltern' (Spivak, 1985) - as simply being a member of a minority group does not make a subaltern - but what Spivak (1999:273) might describe as "metropolitan middle-class girl[s]". In many ways they are part of the 'privileged', extremely well educated and articulate – possibly a 'Māori elite'. However, they are also part of the immense heterogeneity of Māori women that needs to be examined. The 'silence' this thesis attends to is 'Māori women scientists'. In being 'silenced as 'Māori women

scientists' but not 'unrecognised' as scientists or Māori women presents a danger for these women because you are imagined to be the same as other scientists at the same time that you are Other – a doubled position of subjectivity. The exclusion of 'unthinkable' or 'unthought' relationships, such as those in Māori, women and science, have the potential for Māori women scientists' experiences to 'slide into fiction or the imagination' (Munro, 1998). In other words, the experiences of these women as Māori women scientists can become interpreted as fiction or part of the imaginary.

The following two chapters contest this fiction through the narrated subjectivities of these Māori women scientists. Chapter six explores how schooling acts as a site of identity formation through the women recalling their experiences of being 'bright Māori girls' in a system that found that a contradiction in terms. In Chapter seven I examine the narratives of the Māori women scientists as they explore their subjectivities in relation to their work experiences.

CHAPTER SIX

Schooling the 'subject' of science

Academic success is an accomplishment one has to achieve in order to become a scientist. Many of the Māori women scientists' narratives suggest they had much encouragement for their educational journeys. Maia recalls her father having told his family from when she was a young age to become well educated.

> Dad always said if you want to get far in this world you've got to be able to get a good education, you've just got to go to school. There was no arguing about it, we were going to be at school to the end of sixth form and that was it. I never ever questioned that that was the unwritten rule and I'd heard it since I was about eleven or so.

High achieving student families' responses to schooling suggest a strong belief in the dominant discourse of the social system. That is, there is a belief in equality of opportunity for all regardless of race, sex, creed or ethnicity – a form of 'invisibleness'. By becoming 'well educated' and 'to go far in this world' Maia can believe that not only is merit the critical ingredient in social mobility but that her body and her history do not matter. However at the same time as her father is saying that 'race', gender, sex and class do not matter, the 'promissory note' is interrupted as Maia's body is made highly 'visible' by others.

> In the third form I had this friend Jenny[1] and I went to her house one day after school. She's a Pākehā friend and her father stopped me. I went to go into her house and she said, 'You'd better wait here'. Her father came to the door and he said, 'She's not allowed up the drive!' I just thought he was grumpy. I wasn't scared of the yelling. Yet Polly came along - she was another Pākehā friend – she was allowed to go into the house but I had to stand on the footpath. ... I was just shocked that people actually thought really badly about you because you were a Māori person. ... I'd heard other people saying he's a racist and hates Māori people. ... Her mother was very nice and I had quite a bit to do with them but I never did go to their house.

The journey from the footpath to the house may as well have been to the other side of the world for Maia. This narrative suggests the idea of equality being determined by merit alone is called into question. On the one hand Maia's father suggests that she can be 'equal' (to Pākehā with good jobs) by achieving good school results while on

---

[1] Pseudonym's are used for all references to people in the reporting of the women's narratives.

the other hand her Pākehā friend's family is telling her that 'you are not one of us'. This is a contradiction that many of the women in this project confront in significant ways.

This chapter looks at the conditions that have led to the success or emergence of the Māori women scientists and the effects those conditions have produced. In other words, I do not want to look so much at the process of becoming academically successful but how schooling processes have contributed to the Māori women's subjectivities. Narratives about their schooling can be seen as a means by which the women retrospectively make sense of their own construction within educational contexts, discourses, norms and practices. I argue that Māori women scientists' bodies have been 'schooled' into particular subjectivities and that the stories they relate about schooling embody some of the complex disciplinary techniques deployed in schools. First I explore how the women are alienated through their being interpellated into the discourse of 'being bright' and suggest they were often placed in positions where they had to 'choose' between being intelligent or a Māori girl/woman. I then examine how the repeated normalizing and exclusionary practices of schools construct and effect discourses of 'race', gender and rationality. Finally, I explore how language, as a site of power in colonial processes, has continued to shape the subjectivities of these Māori women.

Journeys of mythic expectation

According to Gates (as cited in Casey, 1993:132) educational journeys can start out with expectations of mythical proportions which people believe will take them "horizontally through space and vertically through society" and that education will transform their lives and those around them. However, he argues, often when Black students seek this education they are separated from families, cultural communities, from existing group identities and their system of signification, and the students' passages turn out to be isolated individual journeys "into the heart of whiteness" (Gates, as cited in Casey, 1993:132). This section looks at these journeys for the Māori women scientists and argues that their educational journeys do carry large expectations for the women and their families and can end up as educational journeys to uncomfortable positions between cultures where identities have to be 'managed'.

Donna, the youngest of the Māori women and who works in the forestry sector, felt pressure from her family about the 'success' of her education. Both of Donna's parents work for a large forestry company in their local area in 'unskilled' jobs and neither of them acquired formal qualifications during high school. However, they recognised the possibilities of a 'good' education for their daughter.

> During school I had pressure to do well. Once I won a scholarship in the fourth form year my family was like 'do this' and 'be this' and 'get that' and I took it upon my own shoulders to do that. I'm the only one that is doing well [and] has gone this far. The majority of my family were never really pushed [in] science. There'd been no mention of science during my whole upbringing. Now that I'm in it, they're all really happy because they all think the forestry sector, you know we've got someone there who can start off the forestry sector. It's really hard because I've got this great pressure on me. I just feel like it's upon my shoulders to take my whole community [with me].

Donna felt her family not only had plans for her but for the whole community. In some way there would be social mobility and possibly 'riches' for all the whanau[2] and iwi[3] through Donna's involvement in the forestry sector. In addition the application of the knowledge she would learn at work could be applied to tribal lands and this would benefit everyone. The expectations for Donna are overwhelming.

On the other hand, where some children do better than their siblings at school and/or become educated beyond their parents, splits can occur in families such that managing familial relationship becomes important. This has occurred between Madeleine and her family.

> There is a bit of conflict for me - I was bright and the others have had to try harder. Some of them have this weird idea that life has always been easy for me. I used to always apologise for being bright and I used to act like an idiot probably because that was just one way that I stayed in [with the family]. I only talk to them [the family] about the personal things [now]. The fact that I might be having a hard time with the boss - that kind of stuff. But not about what I actually do, hardly ever. Every now and then I send a newspaper clipping - something.

The relationship between Madeleine and her family always had the potential to be alienating through her being 'brighter' than the other siblings. The fact that she went away and exploited that intelligence to the extreme in qualifications by gaining a doctorate has only exposed it more. She has, through her education, developed 'another self' that differs from that the family knew. In Madeleine's case she finds it difficult to speak about her work with family. Whilst not unrecognisable, she feels she has to withhold a portion of herself to prevent total alienation from the family.

---

[2] Whanau is a Māori term for the extended family.

129

Both these examples illustrate how Casey's (1993) 'journeys of isolation and alienation' can occur with each woman having left their families to study and have come back 'different'. Some educationalists (see for example Casey, 1993) argue that to be intellectual is to not be part of the people or the 'subaltern' (Spivak, 1988) and to not return to them. But what happens when 'the intellectual' and 'the people' share the body or whakapapa? Is it like being in exile? Said (1994) argues, in the case of the intellectual exile, that you can not be "surgically separated" – a total and clean cut between where you are and your place of origin. The same can be argued here with the Māori women scientists - 'in exile' from family and community. Trinh Minh-ha (1995:218) takes a slightly different focus and asks, "When does the inside become the outside, and vice versa?" She argues that the moment the insider steps out from the inside, she is no longer a mere insider (or vice versa) because she necessarily looks in from the outside while also looking out from the inside. Such a position makes her record what never occurs to her while she is an insider while at the same time she resorts to strategies that suspend meaning and resist closure. Both Donna and Madeleine have stepped out from the family through their education and while they are not complete 'outsiders' they undermine the inside/outside dichotomy refusing to reduce themselves to either position. Munro (1998:37) argues that ambivalence and ambiguity that is maintained in a fragmented self is a powerful way to disrupt and create spaces for the unimaginable, that is Māori women scientists. It is processes such as these that have contributed to the women's ability to become Māori women scientists.

Narratives like Maia's, mentioned at the beginning of this chapter, of being encouraged at school to 'get a good job' were few among the women. Only seven of the women were the first in their families to attend some form of tertiary education. The other women came from families that had achieved well through older siblings or in parental generations, and such strong beliefs in the education system and the 'equality' it promised went mostly unspoken. For example, education was very strong in Maryanne's family. Maryanne's Māori mother had a Master of Arts degree and a Diploma in Journalism and was a secondary school teacher, while her father was also tertiary educated and worked in the public service. Maryanne's mother identified her daughter's interest in the outdoors and began taking Maryanne on courses run by universities for science teachers.

---

[3] Iwi means the 'tribal' grouping made up of a number of related family groups.

When I was about 15 in the school holidays we went on an adult education
course run by Victoria University. The first one was on Ruapehu. She'd heard
about it because of being a school teacher - not that it was her field. She and I
went on this course to Ruapehu[4] and I just loved it. We had a geologist and an
insect person and a plant person – all pitched at a level probably for teachers
[but] I could cope with the level of it. And then the next year there was one or
two on Egmont[5]. That is what made me sure that I wanted to go to university
and do biology.

Maryanne's mother had connected with 'being brought up the Pākehā way'.
Maryanne recalls that her mother "was determined that her children would be brought
up Pākehā. Pākehā was the way to go." However, after Maryanne left home her
mother "got very interested in her background" by learning te reo Māori and
translating documents in the family about Te Rauparaha[6]. Whilst not all the women
had such strong educational backgrounds, it was certainly portrayed by many of the
women as expected in the family. At the same time, this education was associated
with being 'Pākehā'. In other words, many of the women were already in
environments where their parents had been educated and the possible separation from
cultural signifiers had already begun. However, if the women are separated from their
cultural communities, from the system of signification, from Māori identities, their
education passages can turn out to be isolated journeys that have different degrees of
separation. Returning to Said's (1994) exile, while it is not an actual condition for
these women it can be seen as a metaphorical condition. The exile portrays a state of
never being fully adjusted, restless and unsettling. For the 'native intellectual' there is
no stable condition to return to and at the same time, you can "never fully arrive"
(Said, 1994:39) or be at one.

Signithia Fordham (1988) has argued that Black students develop a 'raceless' persona
in order to achieve academic success. She suggests that this can be done using
complex strategies. For example, she states in her study that students became
'raceless' through approaches such as discounting 'race' as a factor, dissociating
themselves from Black activities, or becoming 'invisible' by not drawing attention to
themselves. In addition, they can also show no preference for identification, want to
be seen as trying harder than other Blacks, and do or like 'white' activities.
Fordham's notion of a 'raceless' persona may be what Bhabha (1994:86) has called
"to mirror a recognisable Other". Fordham (1988:58) takes her cue from the literary

---

[4] Mt Ruapehu is a live volcanic mountain in the middle of the North Ishland and is part of the Tongariro National
Park.
[5] Mt Egmont, recently renamed Mt Taranaki, is an extinct volcanic cone on the west of the North Island and ia
also a national park.

131

author David Bradley's *The Chaneyville Incident* where he muses over strategies to minimise the effect of race in "determining his destiny". Like Patricia Williams (1991), Bradley recognises the effects of the colour of his skin on society and yearns for the space or time where the pigmentation of his skin might be of only incidental relevance. Marie, one of the women in the study, yearns for something similar.

> When I was a kid I hated being different. I used to want to wash my skin white and I wanted to have blue eyes. I just felt so unlucky for being Māori. I even wanted to have freckles like all the Pākehās had. Mum said that even when I was a very little girl I used to walk past the little Māori kids with snotty noses and very daintily. I didn't want anything to do with them. And at kindergarten I always felt different because I was the only Māori person at my kindy and that seemed like it. My friends were always white kids and I just felt inferior. I remember when I was four some Māori poi[7] girls came to the kindergarten to do a poi exhibition and I hated it. I just felt so embarrassed and I didn't want to be Māori.

Marie sensed quite early that the colour of her skin set her apart from her Pākehā friends. Like Toni Morrison's (1994) character Claudia in *The Bluest Eye*, Marie saw that blue eyes and pale skin were what you got if you were worthy of such a gift. Not having this gift meant you were unclean and unworthy, hence the metaphor of washing the skin to rid yourself of the dirt. For Marie her dark skin disturbs her desired identity. According to Kristeva (1982) the skin is the border between the outside of the subject, which is an object to the subject, and the inside of the subject and therefore, part of the subject. The skin, being an external organ of the body is neither fully contained within it nor entirely expelled from it. Grosz (1994:xii) does something similar when she likens the interactions of mind and body to a "Mobius strip" with the "uncontrollable drift of the inside to the outside and the outside into the inside". For Marie, her skin is the abject that continues to haunt her.

However, the reverse can also happen. Jane tells the story of being asked in class one day if there were any students who were Māori for the school's statistical records.

> [At my new school] there were no Māori in the 6th and 7th form. It were white. [One day we had to] put up your hand if you're a Māori student and I was the only one. It was really funny because they [the school] wanted to know if they had any Māori students. They [the class] just cracked up laughing.

This identification became funny to the class because Jane is a fair-skinned, blue eyed blonde. She is the unexpected or unimagined when it comes to identifying as Māori. Jane has an "unmarked" body, when it comes to being identified as Māori by others,

---

[6] Te Rauparaha was a Waikato leader who was exiled from his own tribe.
[7] The poi is a soft ball on a string – short or long – that is twirled and used in dances and songs.

and as such becomes the ambiguous Māori woman who then must be considered as 'dangerous'. According to Douglas (1966) order is threatened by the disorder outside. Jane, as Māori, embodies that which is 'outside' and so threatens the order and unity of what was thought of as a class of Pākehā students. Jane represents disorder to the others and so the class laughter could be seen as one of nervousness about things being out of place or things not being what they seem on the outside because differences are not there to be seen. As Bhabha (1994:114) suggests, "Hybridity intervenes in the exercise of authority not merely to indicate the impossibility of its identity but to represent the unpredictability of its presence".

I suggest that it is not a 'raceless' persona that is formed but rather that you need to see yourself as 'not different' from those around you in order to think of yourself as like them. In other words, you can take on or reflect those characteristics that you desire. However, Bhabha (1994:86) suggests the consequence of doing this is that one's sense of belonging and self-confidence is seriously undermined every time one is reminded they are different - "as a subject of a difference that is almost the same but not quite". Such is the discourse of mimicry. For Bhabha (1994:86), mimcry has a double articulation that suggests it is a "complex strategy of reform, regulation and discipline, which 'appropriates' the Other as it visualises power" while at the same time it "poses an immanent threat to both 'normalized' knowledges and disciplinary powers". The effect is that discursively mimicry has embedded in it an ambivalence that can operate between similarity and difference. For Maia, Jane and Marie, the ambivalence of mimicry was transformed into an uncertainty that 'fixed' their subjectivity as a "partial presence" (Bhabha, 1994:86) that was both 'incomplete' and virtual. Both women faced a strategic limitation or prohibition in order to achieve their desire to appropriate the recognisable Other.

Interpellating the subject

Subject formation is a complex undertaking. As Kohli (1999) states, taking her lead from Judith Butler's work on performativity, one of the main societal aims of any education system is to transmit 'norms' to the next generation. Such a purpose makes the school "the site for much that counts as 'identity-formation' and 'identity-fixing' through repeated acts of 'norming'" (Kohli, 1999:321). Furthermore, Kohli (1999:320-321) has argued that Butler's 'constitutive powers of repeated processes of interpellation' and the forcible citation of norms offer critical educationalists an

opportunity to better understand how educated subjects come into being. In other words, it offers us a means to understand how the body is schooled into particular identities even as they may be resisted and transformed.

In her work *Bodies that Matter*, Judith Butler (1993) suggests that identities can be forged processes or acts that construct repeated interpretations of people, "There is no power that acts, but only reiterated acting that is power in its persistence and instability" (Butler, 1993:9). Such processes or acts she calls a "process of materialisation that stabilises over time to produce the effect of boundary, fixity and surface" (Butler, 1993:9). The women's interviews in this paper are about those acts of 'norming' at school that have contributed to them forming identities as Māori women scientists. Butler (1993) offers an embodied analysis of performativity that stresses the constitutive powers of repeated processes of interpellation. For Butler (1993:12-13) performativity is "not a singular 'act' [but] always a reiteration of a norm or set of norms. [A] performative is that discursive practice that enacts or produces that which it names". I argue that this is a means by which we can interpret Māori women scientists - their stories of school alienation stand as reiterations of norms and we can address the question, 'through what regulatory norms are the Māori women's identities materialised?'

For one of the women, Mere, this reiteration can be seen through the different names she, her mother, teachers and school friends used to interpellate her into different discourses. Mere, the oldest woman in the study, attended school and university during the 1950s and 1960s. Mere's Māori mother gave all her children names to reflect their heritage. Mere was given Māori names, her sister got the Scottish and French names, while her brother was given English names to reflect "the blood lines". In this way blood had the power to call Mere and her siblings into the symbolic order and becomes a central organising metaphor for Mere's narrative. Blood constitutes one of the fundamental values in a society such as Māori, where alliances according to descent lines long remain an important element in the mechanisms of power (Papakura, 1986; Pere, 1988). Blood relations for Mere played an important and ambiguous part in identity formation in the teenage years. Coming from a stud farming family where the 'bloodlines' of their stock are very important, Mere often spoke of herself in a way that associated her background in bloodlines and farming with her own Māori ancestry. The idea of bloodlines focuses on the body, with all its biological processes and functions. The body is seen as serving the basis of life.

It was not unusual for the women to express their Māori ancestry through 'blood'. This was usually done in one of two ways. The first is through reciting whakapapa or kinship. For example, Maryanne passed me her whakapapa written on a page and had brought in a photograph of her great-grandmother Heni especially for the interview. Heni, through her photograph, was recognisably Māori through her physical features. 'Unmarked' Mere cited her own bodily make-up in fractions of blood, "My great-great-grandmother was Māori so I think that makes me about a thirty-second or something". It was important that the biological connection was made – for Mere through 'blood'. For Mere, her Māori identity is borne of bodily origins that means identity cannot be externalised and expelled entirely and is re-enforced through her naming.

Carrying the 'marking' of Māori names at a large, private girls school and during her time at university caused Mere much anxiety as she, her mother, her teachers, school friends and others interpellated her into various identities. While telling her to be proud of her Māori ancestry, making Mere the carrier of the family's Māori ancestry, Mere's mother also told her to consider herself as Pākehā.

> ...at [name of school] we had a census one year and I rang her [mother] up. I said, "It says do you have Māori ancestry? What do I put down because we've got Māori ancestry haven't we?" "No, no" she said, "just put New Zealander".

The discourse 'New Zealander' began with the naming of New Zealand by the Dutch explorer Abel Tasman. At a time when New Zealand was being pressed, painted, written about, bottled and transported, the Natives were often referred to as 'New Zealanders', particularly by ethnographers. However, by the 1870s, the ethnographic accounts were beginning to call New Zealand born colonials New Zealanders and exclude Māori. In addition, the label 'Māori' began to be applied to all Natives despite iwi or hapu[8] identities. Hence, by late nineteenth century, 'New Zealander' was a term that applied only to Pākehā New Zealanders. In more recent times, mostly Pākehā people, in opposition to differences insisted upon by Māori sovereignty groups, both cultural and linguistic, have used the term New Zealander to describe their identity (Bell, 1996).

Another issue in Mere's narrative is that of cultural origins and authenticity – what is or isn't authentically Māori. For Mere's mother, blood is an important part of being

---

[8] Hapu is the Māori term for groups of families and is a categorisation between whanau and iwi.

authentically Māori – not just any Māori ancestry but a particular threshold. The implication is that Mere's generation has fallen below that threshold – "the blood has run out with you" she often told Mere. The move of naming your children with respect to ancestry yet telling them not to formally acknowledge this ancestry confounds any simplistic understanding of the relationship between racial identity and racial non-identity, between racial authenticity and a non preference for identification. It seems that Mere's part-Māori mother wanted Mere to use New Zealander because she thought Mere was not 'authentic' enough, in not having enough 'Māori' blood, to claim Māori status.

Mere's secondary school teachers also joined this identity disruption. They appeared to have displayed a desire for the 'old place' – Scotland - but at the same time denied Mere's Māori name giving a sense of derision to it:

> ... at [a private girls' school] with this Māori name Mere. All the teachers were Scottish - the headmistress was Scottish [and] they kept the tradition, the Scottish traditions of the Black Watch tartan. We wore Black Watch tartan in the winter and the Scottish Presbyterian form of service - during the week the services were every day. They couldn't pronounce Mere, so for five years I was called Maire.

Mere's teachers had the "normative force of performativity" (Butler, 1993:188). That is, they had the power to establish what qualifies as 'being' in this school. To them Mere was not a Māori girl with a Māori name but 'Maire' the Scottish equivalent to the English name Mary. Mere was denied the possibility of her Māori identity from her teachers.

Mere's anxiety continued in her attempt to separate the name Mere from herself - her physical and psychological being.

> My mother used to say [to the teachers], "Look, her name is just Mere, but if you can't pronounce that just say Mary". She tried to encourage this Mary, but one day I said to her "Can I change my name to Mary? I'm just sick of this". It embarrassed me. People would say to me, "Oh, where did you get that name from? Have you got a 'touch of the tar brush'?" That was the words, the saying in those days. But she wouldn't let me.

She had found the identity of Mere as unlivable and made attempts to produce a domain of the abject (Kristeva, 1982; Butler, 1993). That is, to rid herself of the name Mere, the 'marking' she carried, by substituting the name Mary. By her own narrative though the name Mere held the Māori ancestry of the family so to rid herself of the name was to also rid herself of 'being Māori'. Without the name, Mere's body

becomes 'unmarked' and hence "constitutes the currency of normative whiteness" (Butler, 1993:170-171). But her mother denied her permission for the separation.

The students in the dormitory were not so refined in their naming and called Mere 'Hori'.

> All my dormitory mates [called me Hori]. Even now I'll run into them in the street and they'll say, "Oh, Hori how are you?" They called me Hori because I had the Māori name. I was often referred to as Hori.

Hori is the Māori name for George – a male name. In addition, 'Hori' is also a slang name meaning 'Māori'. Mere is light-skinned but cannot help but introduce her Māori ancestry into the conversation through her name. The name is the marker. However, being a boarder at an elite private girl's school gave Mere some 'cultural capital' through her parents' ability to pay. The term 'Hori' conveys with it racial boundaries. It would appear the name is used as an affectionate term while there is a "kind of knowingness in the language" (Butler, 1993:171). Butler (1993:172) argues that such terms permit people to see and not see at the same time by sustaining the affection and desire as a kind of disavowal which contribute to the boundaries of their own racial identities.

Mere found that even with the sophistication of university and adulthood she could still not avoid people commenting on her name. She tried other tactics. On a visit to the home of a new university friend, situated on a large high country farm in Canterbury, Mere was once again confronted with the marking of her name.

> I can remember during the course of the weekend her father saying to me "You wouldn't have a touch of the tar brush, would you?" I said, "No, no, my mother just liked Māori names, you know like Ngaio Marsh[9]". So that was when I began lying. A lot of it was because [of] the conversation that weekend. I remember him explaining to the Springboks[10] [visiting also that weekend] why they [the farmer] never employed Māori shearers on the property because they were too unreliable, they'd get drunk and wouldn't turn up for work the next day. I can remember this sinking sense of shame and thinking 'when am I going to be asked?' Inevitably I knew the question would come.

Mere disavowed her Māori ancestry as she sensed a hostile environment. While not denying that she had a Māori name she did not have to 'admit' to Māori ancestry. Through her fair skin and her withholding of conversation on the ancestry marker she reinforces the hegemonic assumption that she is 'white'. Mere appears to 'pass' in so

---

[9] A well known New Zealand writer who is Pākehā but has a Māori name.
[10] The Springboks are the South African rugby football team.

much that she enters the conversation with her friend's father under the presumption of being Pākehā. She continues on as to 'how she fixed' the problem for further years by becoming inventive and finding a way to forestall any inquiries.

> So for the rest of my three years in Canterbury [University] I decided I'd put in an acute above the last 'e' and pretend my name was Meré. I'd pretend that it was French and that took care of that. A lot of people even today, the ones that don't call me Hori from [school] call me Meré.

By the end of her schooling Mere responded to Mere, Mary, Maire, Hori and Meré. Haraway (1997) argues that blood is associated with disciplining the body. Mere, as a young Māori woman during her schooling, it appears was multiply interpellated in a way that related to blood or kinship. Mere was constituted in and by that multiple calling. Butler (1993:182) argues that suggests that the symbolic domain, or that of socially instituted norms, is composed of 'racializing' and gender norms that are articulated through one another. Mere's name changes centred on issues of racial and sexual boundaries, of disavowal, abjection, ambiguity and ambivalence.

Bannerji (1997:25) asks a question about the function of naming with respect to Canada and its nationalist project.

> And what is the function of the many names applied to us? They are categories for organising the state apparatus, its regulations and policy functions, and for enabling the ideological organization of "relations of ruling". These categories enable the state to extend its governing and administrative jurisdiction into civil society, while, at the same time, incorporating the everyday person into the national project. One might say ... they are appellations for interpellation.

In the same way, such a question can be asked here. Mere, Mary, Maire, Hori and Meré are the names used to interpellate Mere into different discourses. All the names given to Mere are codes for political subjectivities and pedagogical possibilities that are embedded in both immediate and long-term effects. They have helped to construct Mere and her lived experience, and to place her in roles of belonging and of alienation – sometimes simultaneously. By naming Mere in different ways, she is brought into the domain of language and kinship through the interpellation of 'race' and gender. She is being simultaneously 'raced' and gendered. As Butler (1993:8) suggests:

> ... that founding interpellation is reiterated by various authorities and throughout various intervals of time to re-enforce or contest this naturalising effect. The naming is at once the setting of a boundary, and also the repeated inculcation of a norm.

However, repeated inculcation can occur in other ways. The following section of this chapter suggests that repeated experiences of alienation in differing contexts during their schooling leads to these women experiencing the same effect of being told that they cannot be 'Māori' and 'intelligent'.

Reiterating through exclusion

According to Butler (1993) various authorities reiterate founding interpellations, such as 'race' and gender, and over various periods of time to re-enforce or contest subject positions. Iterability, she claims, is "a regularized and constrained repetition of norms ... a ritual reiterated under and through constraint" (Butler, 1993:95). Furthermore, she argues that interpellations contribute to the field of discourse and power through the idea of exclusions, brought about through placing boundaries or limits on people. In this sense, it is argued that the school's role in transmitting societal norms to its students would inevitably be a site for the women to form identities through repeated acts of norming. The Māori women's narratives suggest that their subjectivities were partially constituted at school through means of exclusion. This suggests that to claim their subjectivity is to be partially constituted through identification's 'abject'. Butler (1993:188) argues:

> The normative force of performativity – its power to establish what qualifies as "being" – works not only through reiteration, but through exclusion as well. And in the case of bodies, those exclusions haunt signification as its abject borders or as that, which is strictly foreclosed: the unlivable, the nonnarrativizable, the traumatic.

However, we are also reminded that that which is refused or repudiated in the formation of the subject continues to determine that subject (Kristeva, 1982; Butler, 1993; Bhabha, 1994). At school it is being Māori, woman and bright that is continually called into question, refusing their possibility of articulation as they are juxtaposed against contesting subjectivities. These multiple interpellations are not parallel discourses, but a matrix of relations of power and knowledge.

Much exclusion is performed at school through what is said, done and erased. Foucault (1977) refers to exclusion as a technique for tracing the limits that will define difference, boundaries, and set zones. Exclusionary techniques are pervasive in schools' practices. The women had many stories of this nature. For some of the women the separation came through 'streaming', while others got sent away to school and yet others took science as a form of 'refuge' while simultaneously being

'exceptions to the rule'. For example, Caroline speaks of the separation from her Māori friends when entering her local state high school because she was considered 'bright' and was 'sent to the geeky class'.

> I hit college[11] and I was streamed into the geeky class so I lost all my friends. I was separated. I lost them all. Sent to the geek class. I didn't handle it well. I couldn't understand ... I just thought you losers. I didn't ask to be moved and I haven't changed. I just thought this [separation of friendships] is your doing. I can't do anything about this.

In particular, Caroline recalls it affected her friendships with Māori friends that she had made through years of primary and intermediate school. Her peer group did not sanction Caroline's shift from them. Caroline projects the agency of her 'brightness' to an object outside herself by saying she was "sent to the geek class". She appears to be ambivalent about the separation but is unwilling to give up her desire to do well at school. Caroline and her Māori friends were made aware upon entering high school of another form of differentiation between Māori – the interruption of a collective Māori identity – the idea of 'streaming' on merit that held credence in the schooling system (Olssen, 1988). Caroline and her friends, through the pedagogy of 'streaming', have been normalised while at the same time pathologized.

Diane saw 'streaming' as a positive influence in her life:

> What I believe is a major influence at the very beginning was when I got to intermediate, it was streamed and I was fortunate enough to get into the top stream. I believe [that] was what set me on the track [to being successful in science] because you never ever got Māori in those classes.

Unlike Caroline who was upset at losing her friends, Diane sees this as a positive influence in her achieving success at school as Māori were not there to distract her. Clearly Diane saw her Māori school friends as not working towards academic achievement and she credits 'streaming' as a way that lifted her above other Māori. Diane implies in her statement a stereotyping of Māori that motivated her to dissociate herself from that negative image of Māori. She does not want other people to view her in the same way – lazy and dumb. In this way she desires to be like those that are intelligent who, in her class, were Pākehā. Many postcolonial scholars (see for example Ashcoft, Griffiths & Tiffin, 1995; Bhabha, 1994) argue that the epitome of colonisation is when the colonised are able to surveil the self. Surveillance depends on 'active consent' of the participant to be objectified by self and others. This is essential in colonising power relationships and is the ambivalence on which the

---

[11] Secondary school or high school.

negative stereotype of Māori turns. To get Māori to believe in the stereotype provides the means through which self-surveillance relies on and illustrates Foucault's (1977) crucial power/knowledge coupling. In this sense, Diane is able to develop her own reasoning for why she is more successful than the other Māori students.

Another way in which separation occurred for these Māori women was when promising students were sent away from their local Māori school friends or communities to attend school elsewhere. Arihia and Marie both boarded at the same elite private girls' school. Arihia began there in 1958 while Marie began in 1985. Arihia went because her parents could afford it:

> Mum and Dad were flush with the money from the Korean War. All sheep farmers made a lot of money from the wool prices. [The local high school] was academically the pits, and I'd been doing very well at the little local primary school. They felt they could afford to send me to what they saw was a better school than the local high school. My mother had been an old girl[12] of [the school] so on the basis of that my sister and I were packed off.

Arihia did not regret going away from the local area nor her separation from local Māori children:

> I enjoyed it in one way, except I hated being away from home and the farm. Academically it was really challenging and pretty rewarding and I'm grateful for that. ... Even at primary school I was different because I was brighter than the rest ... A lot of Māori kids, but I was somehow different because I was a bit brighter.

Marie, on the other hand, won a scholarship to attend. This was convenient because her parents wanted to get her away from the 'bad influences' of other Māori children at the local school:

> Mum and Dad didn't want to send me to the local high school because they were worried about the peer pressure from the other Māori students. ... There were nine Māori and Pacific Island students out of nine hundred and I had this overwhelming knowledge that I was probably the poorest student in the entire school. ... It was a good experience to go to [there]. I hated it. I'd never seen people so rich in my life.

To be 'good for me' but 'hating it' suggests that Marie has internalised 'knowledge' of herself by seeing herself as an 'Other'. Marie's Māori peers would undoubtedly distract her from her schoolwork, and hence becoming academically successful. It is an example of Foucault's (1980) power/knowledge couple as Marie, by some internal compulsion, exercises normalisation on herself. Marie is positioned and subjected in the dominant regimes of representation and 'tames' her 'Māori character' in order to

---

[12] The term 'old girl' here refers to her mother as part of the alumni of the school.

achieve the position of being a 'bright, girl'. She hated the experience of being at this elite, private school but it was 'good for her'.

It did not always mean that the women were sent away to private girls schools that had mainly Pākehā students, as one went to a Māori girls' boarding school. However, they went for similar reasons - to get away from the bad influences of peer Māori they had often grown up with. Te Awhina comes from a small town with a predominantly Māori community and had attended the local primary school. Her parents sent her to a Māori girls' boarding school in the city:

> The decision, my parents wanted to give us like more opportunities so they decided that I would go to [name of school]. They just thought that would offer more than the local high school. They thought the standard of education would be higher and it would have much more to offer. [Also] I wouldn't have the influences you have when you are at a local school.

Similarly, Caroline describes forms of alienation she experienced at university, particularly other Māori on campus. The implication from her experiences is that her identity as Māori is not the same as other Māori students. Caroline had enrolled in an undergraduate science degree and went to inquire about funding for Māori students:

> It really was awful. Quite soul destroying. I'll never forget that. There were people down in Māori Studies who made you feel awful. You'd go down there to find out about a scholarship ... I remember in my undergraduate ... and you'd just get turned away. And there's also a huge distance between chemistry and Māori Studies - there's a huge difference – so you're really going out of your way to go down to Māori Studies.

Caroline found opposition where she least expected it – among 'her own'. Morrison (1994) suggests that this exclusion by one's own can occur with Black kids because of their contempt for their own Blackness. In the same sense, the rejection by other Māori is the acceptance of the stereotype by others of their own 'Māoriness' and Caroline disrupts that identity. Caroline seems to equate the physical distance between the Chemistry block and Māori studies on campus as a metaphor to convey her sense of alienation as a Māori woman science student from other Māori students on campus, especially those in Māori Studies. She also refers to Māori Studies as 'down' referring to both its physical location with respect to Chemistry - at the bottom of the hill - and also symbolically as being 'less than' science.

A number of the women spoke about 'being different' from other Māori students because they were 'brighter'. The majority of the women said that they did science

because they achieved well in the subject at school. Diane recalls 'special' classes in her primary school for the bright students:

> [Science was a] subject that everyone fought to be top in. Nobody really gave a hoot about English but if you could get top of maths or top of science you're [were] it. And then they had special classes that ran for about one or two hours a week and you were slotted into a special class. I was slotted into one for maths and so I did probably secondary level maths.

Marie speaks of the reasons she chose science as an area of tertiary study as including the idea of "not many Māori or women" being involved:

> I was quite interested in Conservation and I'd wanted to do a science thing because I was good at Science. I did well at sciences and I liked the fact that there weren't very many Māori people and very many women doing science. So I [thought I] could have a go here. I just like to be different and everyone would say to me, "Why are you doing Forestry?" and that just made me all the keener to do it.

As she continues, Marie articulates 'specialness' well drawing on her own experiences at university:

> I think that people who are Māori students at university or who do well are quite protective of their specialness. I think that means that they're not often particularly friendly to other Māori people. I suppose for most of your lives you'd always been the most bright Māori student they'd ever had at their school, or you'd just done so well and everyone thought you were particularly special because you did so much better than other Māori students. And so you get to like your position and feel threatened if there are other people around who are as good as you and you know are also Māori and successful.

For these bright Māori girls, being singled out became part of their identity structure that helped their conscious and unconscious desire to be 'exceptions to the rule'. Trinh Minh-ha (1989:86) states that "one cannot help feeling special when one figures among the rare few to emerge above the anonymous crowd". So it is with these Māori women who are 'bright' and have been separated out from other Māori to be in top streams or classes. Based on what other Māori (women) are not capable of doing, such a reward can easily create a division or separation between those who have achieved and those who cannot.

Such separation for these women encouraged the idea they were different to other Māori students. The parents of Arihia and Marie, through their own wealth or scholarships, enabled the girls to 'dissociate' themselves from most of the Māori community sending them to schools that were predominantly Pākehā. In the case of Te Awhina going to a Māori girls' school, her parents enabled her to associate with other Māori girls that had similar values to those her parents also aspired to. For

143

Caroline the separation was between Māori students and between science and Māori studies, both as subjects and as physical entities on a campus. Again there is ambivalence that turns on the 'stereotype' of Māori. As Fanon (1967:111) recognised in his well-known "Look, a Negro" conversation in *Black Skin, White Masks*, Māori also can turn away from themselves in an identification with the "positivity of whiteness which is at once colour and no colour" (Bhabha, 1994:76). Whether being sent to elite private schools with few or no Māori, being sent to Māori boarding schools, or studying Chemistry far away from other Māori, all represent a disavowal and fixation on an ideal identity that is Pākehā and whole instead of brown and 'partial'.

While 'being good at science' was the dominant discourse from the women, a significant number of them also spoke about taking science because of the combination of a teacher and the girl's ability to do well. It appeared that the teacher had both expectations and aspirations for these bright Māori girls. For example, for Maia it was a teacher in Form Two.

> When I got to Form Two I had a teacher called [name]. I really enjoyed her class and she used to have these really fun science experiments. I remember at the bottom of my report she wrote a line of text in blue pen with excellent handwriting, like calligraphy. She said that Maia will do very well in science in her future. It still sticks in my mind. I really admired her and I took in that comment over any other comment.

Katerina spoke of a teacher that influenced her decision.

> I always knew I was going to do science ever since third form because I was really good at it – I got top of my class in the third form. I had a good teacher in the third form – he's an Aussie and he was quite funny. I remember one time he sent this note home to my parents saying how I was doing really well in science and stuff like that.

Other women spoke of similar circumstances at various points in their schooling - teachers who accepted that they could do well and showed them in some concrete way. A note home, telling them they could study science at university and helping them apply, or helping them apply for jobs as a technician.

However, such encouragement and support did not warn the girls of some of the conflicts and tensions they would face if they wanted to continue some aspects of identifying as Māori. Aroha, one of the youngest women in the study, spoke about tapu and science:

> Finding the balance between being Māori and the science thing. Like my uncle was telling me last time I was home about a bit of land where it was

144

tapu and the trees wouldn't grow on the land. He was telling people that it was because it was tapu land that they wouldn't grow. I thought I accept that that's Māori but then if I look at it scientifically I think 'No, it's crap'. I mostly go the Māori way. I've got to kind of balance it. Sometimes I don't resolve it. I just think 'Well, that is the way it is'.

What is important here is not that tapu is considered to be irrational knowledge or that scientific explanations for why trees do not grow on this land can be identifiable through quantitative soil experiments. The issue is that when confronted with a contradiction like this that the women are 'unhomed' but not homeless (Bhabha, 1994:9). According to Bhabha (1994:9-11) "the 'unhomely' moment creeps up on you as stealthily as your own shadow [...] forcing upon us a vision divided as it is disorienting. [...] Suddenly the home turns into another world. [...] The 'unhomely' moment relates the traumatic ambivalences of a personal, psychic history to the wider disjunctions of political existence". Aroha finds herself bafflingly both alike and different but cannot resolve it and this inevitably results in a partial and fragmented subjectivity.

For Donna science presented an alienation from being Māori that she found difficult. When asked why she was going to leave her job as a technician she expressed some difficulty at reconciling being Māori with science:

> I don't know what it is, but I think it is the fact that I'd be going back into a predominantly Pākehā subject. I don't know whether it is or not, but I think it's left a mark on me where it makes me feel lower or feel out of place again. You're not following your own kind ... not being with my friends and things like that.

She talks of being 'out of place again' as if this displacement has occurred to her before, particularly in studying science. The 'mark' that science leaves on Donna is the alienation from her "kind" or kinfolk. The marking is double – one of inferiority while simultaneously one of 'whiteness'. The mark of whiteness is through the absence of 'Māoriness', or the 'lack of blood', paleness. The implication is that science has vampire like qualities which Haraway (1997:214) suggests "feeds off the normalized human".

However, despite the 'reiteration' of telling these young Māori women that they were different from other Māori, they often found ways to resist and stay in contact with their 'Māoriness' through other activities. These actions could be seen as forms of resistance with respect to the regulating practices of schooling. One way was through playing sport:

We grew apart but we didn't because I was still a sports person. They were all very sporty. Geeks do not participate in sport without being forced to, and because I was still active that kept me kind of cool. But not completely cool.

Here Caroline brings into play a number of binaries - mind/body, science/Māori, and geek/sport - that are defined against each other. A 'geek' (being bright) does not play 'sport' but Māori play sport therefore 'Māori' cannot be a 'geek'. In addition, playing sport (body) is set against being a 'geek' (mind). Caroline has sought to contest her place as a non-sports person because she was intelligent. Caroline was very good at sport, eventually representing New Zealand at netball. Diane recalls something similar.

[After being separated from them] I still had closer relationships with Māori students at high school. I just sort of gravitated towards them. They certainly didn't gravitate towards me, but they certainly accepted me. We played sports. Sports brought us together.

The students were willing to accept these women back into their group because they could play sport but Diane's story suggests that the group did not actively seek out the students who were 'not the same'.

Another way that the women gained agency was by becoming 'naughty'. Marie, who won a scholarship to attend a private girl's school in a large city, became 'the bad influence' in the school. Her and her Tahitian friend Teata were seen as being 'dangerous' to the Pākehā girls that attended.

In my third form I had this girl that was French Tahitian. There were just the two of us. When I first went to school I think the girls expected [that] I was Māori [and] I was going to be this 'square ball' and ratbag. So everyone was quite interested in me at first because they could be naughty with me. Teata was quite naughty and always so popular because all these little rich girls could be rebels hanging out with her – wagging classes and smoking. They think you're exciting if you might be something that's naughty.

Brown was considered to be dangerous – a chance to be rebellious for the girls at this school. Brown was something the "rich girls" were not. Being 'brown' functions to symbolise the fantasies and obsessions of other girls. It also suggests Marie and Teata represented a threat with notions of contagion that is located in the polluting powers of bodily fluids (Douglas, 1966) – the 'blood' that made them visibly brown. To "hang out" with Marie and Teata made the other girls, who were not usually categorised as 'naughty', mischievous as well.

To be a 'geek', to be' bright', sent away to boarding school or to do science all represented being spatially separated from other Māori students and to be 'special' in

146

your difference. In mirroring the "recognisable Other" (Bhabha, 1994:86) the women accept the invitation to identity "you're *different*, you're one of *us*" (Bhabha, 1994:44, original emphasis). To be different from those that are different, that is Māori, is to be the same, that is Pākehā. At the same time those who are "geeks" are not sporty because sport is how the women made their way back to 'being Māori'. Such constructions have parallels with Anne McClintock's (1995:108) argument that working class women were connected to "racial otherness". As such, Black servants were those that worked their hands or bodies in order for the upper classes to be 'idle' and able to think. In a similar manner, Grosz (1994:22) argues that corporeality "must no longer be associated with one sex (or race), which then takes on the burden of the other's corporeality for it". The dichotomy between mind and body can be drawn from the women's stories. To be Māori is to 'play sport' and exert energy like the working classes or servants, while being 'bright' and 'white' means not having to become 'bodies' but to be able to "soar to the heights of theoretical reflection and cultural production" (Grosz, 1994:22).

Language and subjectivity

Language is a site of struggle in empire because usually the colonial process itself begins with language (Ashcroft, Griffiths & Tiffins, 1995). This has been true in Aotearoa New Zealand. The control over language in Aotearoa New Zealand was achieved by displacing te reo Māori[13] with English. An 'English only' policy was introduced into Māori education through the Native Schools Act (1867) that meant that all instruction to children was to be carried out in English (Barrington, 1966). While at the turn of the century approximately 90% of Māori still spoke Māori, by the 1970s that had dropped to approximately 12%, of which one half were over 60 years of age and only 15% were under 30 (Ministry of Education, 1991). Whilst never policy, several Māori in the 1920s and 1930s have reported being punished for speaking Māori at school and some of them decided not to teach their children Māori so the same thing could not happen to them (Benton, 1981; Middleton & May, 1997; Simon & Smith, 2001). This generation were the parents, grandparents and great-grandparents of the Māori women in this study. This policy of assimilation with respect to te reo Māori and to the exclusion of Māori knowledge in the curriculum generally lasted until the 1960s (McKinley, 1995). This period of Māori education

---

[13] Māori language.

policy included the time when the older women of this study attended primary and secondary school for some.

Combined with rapid urbanisation and fragmentation of Māori communities in which te reo Māori was spoken, by the 1970s generations of young Māori were in the unenviable position of not being able to speak the native language. The 1970s saw more changes in Māori education policy as a discourse of 'multiculturalism, where cultural sensitivity and respect were part of the rhetoric, became an attempt to meet the needs of Māori students. As a result, by the 1980s a discourse of 'taha Māori', literally Māori side, was introduced into schooling. This included an attempt to incorporate a Māori dimension into various subjects in the existing curriculum (McKinley, 1995). At the same time, Richard Benton's (1979) research indicated te reo Māori was 'dying'. The 1970s and 1980s saw growing unrest amongst Māori communities, such as the young well-educated Nga Tamatoa[14] group, regarding young Māori 'failing' at school and connected this with the teaching of te reo Māori. The 1980s saw the introduction of bilingual[15] and Māori immersion[16] schooling. New Zealand did not recognise te reo Māori as an official language until 1987. As Sir Apirana Ngata was reported to have said in 1939, there is "nothing worse than for one to be with Māori features but without his own language" (Barrington & Beaglehole, 1974:207). So how does Māori language relate to subjectivity for these women?

As seen with Mere's narrative, language provides the terms which peoples constitute subjectivities. Ashcroft et al (1995) argue that there are two immediate responses to the dominance of an imperial language – rejection and subversion. African writer Ngugi Wa Thiong'o (1995) argues that in order to restore a national identity embedded in the mother tongue English needs to be rejected and, as such, he refuses accede to the world it names by rejecting its use for writing. However, poststructural writers have focused on the performative force of language and exploring the complex relations of subjectivity, discourse, and pedagogy arguing for a complex and heterogenous human experience (for example, see Middleton, 1993, 1998; Butler, 1993; Grosz, 1994; Ellsworth, 1997). Whilst Ngugi Wa Thiong'o's position relies on the idea that pieces of dispersed 'native' identity is able to be gathered together and

---

[14] Nga Tamatoa were predominantly made up of young Auckland University students. They were very politically active in the 1970s and are largely responsible for the introduction of Māori Language Day in the 1970s, which has now become Māori Language Week.
[15] Māori and English.

reconstructed into a whole 'authentic' native, the meaning and effects of populations losing their language does raise questions regarding identity and the nature of the subject. For many of the women the learning of te reo Māori at school or home was not 'available'.

While 'bright girls' have been encouraged to do languages at school for a long time (Fry, 1985), the 'second' languages taught in secondary schools prior to the late 1970s were mainly Latin and modern European languages, such as French and German, with very few schools offering Māori language. More recently Spanish has been added with some Asian and Pacific Island languages in particular schools. This history made fuller the articulation of Māori culture or 'being' through making the study of Māori language difficult for a number of the women. Diane, who attended school in the 1960s and early 1970s, recalls experiences that were not uncommon at the time:

> [I did] French, there was one class where you did Latin or French. I wasn't interested in doing Latin, so I did French. Māori was never taught. The only Māori teaching that I got through all of my schooling was the year I had my father as a teacher.

However, when Māori was taught in schools it usually was not available to the 'top stream' classes that were still expected to do a language but usually French, German or Latin. Jane, who attended high school during the early to mid 1980s in a town with a large Māori community, said it was offered but not to her:

> No. I never could [take Māori language]. It was offered but I went into the top stream and you couldn't do Māori if you were in the top stream.

Ngahuia Te Awekotuku (1988) wrote of similar experiences when she attended secondary school in the 1970s. Then Jane shifted to a new school and town in a predominantly Pākehā suburb of a large city at the end of Form Four:

> At [local state] high school I could never ever take it, and at [name of new high school] it was never offered.

There can be some tension between school and culture for Māori high achievers. For example, the disapproval by schools of a strong ethnic identity can produce conflicting and ambivalent feelings in students towards developing a strong racial and ethnic identity and towards performing well in school (Smith, 1993). Ambivalence and conflict can be at the centre of the high achieving Māori women's response to

---

[16] Māori immersion schooling options include Kohanga Reo (pre-school) which began in 1981 and Kura Kaupapa Māori (primary or elementary schools) which were established from 1985. By the 1990s Wharekura (secondary schools) were also established.

school and schooling resulting in complex strategies to either resolve or cope with the ambivalence that they feel. While Māori language was offered in secondary schools in the 1980s when Katerina attended, she had a conflict between taking Māori as a subject and practising what her teacher saw as the tīkanga, and not missing too much school work in her other subject areas:

> Like at secondary school I took Māori third form and fourth form but I just got pissed off with the whole thing because our Māori teacher would go to every single hui and I'd be missing out time in other classes. Every day there would be somewhere they'd want us to go to, and if we didn't we'd get stuck with a relieving teacher who didn't know anything about Māori. So it was a waste of time. That's what I felt any way. Like you're spending two hours in this class with somebody who can't even you know speak Māori or whatever. He'd [the teacher] be off at all these hui with whoever wanted to go. I didn't like [it] because I'd miss out on all these other classes. And you'd still have to catch them up.

Katerina developed practices and behaviours rewarded in the school context to achieve academic success. For Katerina, the 'not learning Māori' and catching up were the problems. Characteristics of good learners are that students do not fall behind. The ultimate solution for Katerina was to drop Māori as a subject after Form 4. However, for Katerina te reo Māori was an important part of what she thought 'being Māori' was about and her lack of knowledge in the area made her feel inadequate:

> You sometimes feel that you're lacking something by not having learnt the language. I mean I'm brown and can't hide it.

Here Katerina makes the link between te reo Māori and her being 'brown', or carrying the markings of being identified as Māori by herself and others. As such, Katerina feels "deprived of subjectivity" (Bhabha, 1994:251). She occupies a "space of splitting" (Bhabha, 1994:44) whereby she wants to achieve at school to be like successful learners, while at the same time recognising that she is "almost the same but not quite" white (Bhabha, 1994:86). Katerina is confronted with her difference – her Other – through te reo Māori.

The 1980s saw a fuller introduction of Māori into secondary schools, with far more schools offering it as an option. One of the youngest women, Sophie, was able to attend a secondary school that had a bilingual class, where Māori became one of the languages of instruction, when she began in 1987. Sophie, the only woman in this study to have a 'bilingual' education, has experiences of Māori language that stand in contrast to Katerina's comments:

> My Mum and Dad brought me up in a very Māori orientated community up
> north and I went to schools with bilingual classes in primary and intermediate.
> That was pretty standard. We had Māori teachers and we always were singing
> Māori songs and learning Māori language. [We had] more culture, we used to
> make hāngis[17] and invite the third formers and go through all those sort of
> protocols but still learn the language, do speeches and all that sort of stuff.

Living in Northland, Sophie recalls that te reo Māori was an everyday part of her
schooling:

> All my friends took it. We had a Māori orientated school at [name] High
> School and we went into the competitions and all that sort of stuff. In [the]
> third and fourth form we had to do it [te reo Māori]. It was compulsory at our
> school, and in fifth and sixth form I opted to do it. I was allowed to do it but I
> was in the top stream. I was in the top stream for three classes, and then we
> split up for the options.

Sophie and Katerina are two of the younger women and they are the same age. Both
young women were brought up in predominantly Māori communities – one 'up north'
and the other in the Waikato. However, Sophie, in her bilingual option, was not
positioned like Katerina in relation to language and subjectivity. Te reo Māori, for
Sophie, did not "call her into being in relation to an otherness" (Bhabha, 1994:44). It
would appear that Sophie had the support of a cultural community whose system of
signification included te reo Māori.

None of the women spoke about Māori knowledge being part of the science
curriculum. Māori was placed outside school science in their experiences. Access to
Māori knowledge for many of the women came through activities associated with
Māori culture because Māori cultural knowledge was excluded from everyday
activities. For example, Katerina speaks of Māori language week at her school.

> Every time something Māori come up – Māori language week or something –
> we always, the three of us [in my class] would grab onto that with both hands.
> [We would] think we were just the business. Walking around saying all these
> words properly and everyone else couldn't.

All Māori students, particularly those who are 'marked' or identify as Māori, are
implicitly 'invited ' to participate in Māori Language Week. Māori Language Week
became an empowering vehicle for Katerina and her Māori classmates, being able to
'say the words properly'. Uma Nayaran (1997) argues, that 'insiders' can feel
empowered when placed in a situation like 'Māori Language Week'. She argues such
strategies are set up to 'rescue' Westerners from their negative stereotypes and
attitudes and tends to construct the 'insiders' as 'missionaries'. The invitation for an

---

[17] A traditional method used by Māori for cooking food underground.

opportunity for a stake in undoing negative stereotypes of our culture in the schooling context and in restoring Māori achievements to view is difficult to refuse.

However, strategies like Māori Language Week are also a place of competing and antagonistic political agendas. Caroline describes her school's effort in the 1970s:

> We went to high school, and they used to have Taha Māori [18] and it was exactly that - a little bit of Māori on the side. I don't know why they even bothered.

Caroline's father had a strong belief that Māori culture and knowledge should be the right of Māori children first:

> [We all] went through [the local school] that is a renowned school for Kapa haka[19] in the seventies. They were [the school] welcoming the Queen and that sort of stuff. [My older sisters] auditioned for the Kapa haka group and they didn't get in. Some Pākehā kids got in ahead of them and my parents just went 'loopy' and banned all of us. So the rest of us could never do Kapa haka at the primary school which was devastating for the rest of us. So not only did we not have the reo but we didn't have Kapa haka which is integral, I think. It is something that every young Māori child should have access to.

However, this is ironic as Caroline explains her attempt to learn Māori and her father's reaction. Her father was a native speaker but did not teach his children the language:

> I did te reo Māori at secondary school but I dumped it in the fourth form. I used to go home and practise my Māori. 'Kei te pēhea koe?' [How are you?] And my father used to just burst into hysterics. I knew that it was different [from] what he spoke. It sounded strange to me but I thought it's what we've been taught. In the end I just said 'What's the point of learning this when we're just going to be laughed at?'

Such contradictory ideals from both school and her father added to Caroline's identity formation because the boundaries of identity were ambiguous where te reo Māori could occasion rejection and retribution. Māori language represented both a transgression that "offered the shimmering promise of autonomy and the potency of self-creation" and also "threatened … the catastrophe of negation" (McClintock, 1995:263).

By not being available as a language to study or through which to study for many of the women, Māori was 'forbidden'. Te reo Māori became the language of the socially abject and acted as a border of racial difference that was policed by pedagogy. Māori

---

[18] Literally meaning 'Māori side'. It was a programme introduced into schools that saw more Māori culture introduced to classroom activities and usually consisted of activities such as singing, dancing, art and craft work.
[19] Māori song and dance performance.

language in schools for many of these women was a site where important and repetitive production occurred "under and through the force of prohibition and taboo, with the threat of ostracism" (Butler, 1993:95). The policy on Māori language in schools was exclusion until the 1970s where some schools, mainly in predominantly Māori communities, introduced it as a subject where it was treated like foreign languages, such as German and French. The 1980s saw a fuller introduction, particularly in secondary schools, and acknowledgment in primary schools. In the 1990s it is compulsory to teach some Māori language in primary schools and most secondary schools now incorporate Māori language for all their students (McKinley, 1995). As a result, language can be seen to form a further complexity in the identity and identification of the women.

While some women took te reo Māori and discarded it as something that did not fit with the values of being bright, others did not seek it out. At the same time, Maryanne wrote to me after the interview and told me that our conversation had prompted her into taking Māori language classes. Fanon speaks of how 'race' is encoded in language:

> To speak a language is to take on a world, a culture. The Antilles Negro who wants to be white will be whiter as he gains greater mastery of the cultural tool that language is. [...] The fact that I had been able to investigate so interesting a problem through the white man's language gave me honorary citizenship (Fanon, 1967: 38).

Here he argues that to speak a language is more than just assuming 'a culture, a world' but that it also includes the presumption of a 'race'. For Fanon, mastery of the French language grants the Antillean access to whiteness – "honorary citizenship" (Fanon, 1967:38). In a parallel manner it is argued that the suppression of te reo Māori and the mastery of English operates as a "cultural bleaching process" (Fuss, 1989:74) intended to produce a new product.

Conclusion

Mimi Orner (1998:292) states that "the school-as-lived is organized and maintained daily and over time through a multitude of discursive and material practices". These Māori women scientists live constantly with the contradictory regimes of the body in the formation of their subjectivities. In particular this chapter has examined school practices and processes that have acted on and produced a split for the Māori women scientists between their intellect and their bodies. For many of the women a

commitment to the ideology of the dominant social system is what structures their academic effort and performance at school, motivating them to strive for academic excellence. However, as David Sibley (1995:8) argues: "maintaining the purity of the self, defending the boundaries of the inner body, can be seen as a never-ending battle against residues". For these women the residues are the negative stereotypes of Māori that the women have to 'reflect' if they are to succeed. Māori, as the abject, are "obliged to inhabit the impossible edges of modernity" (McClintock, 1995:72) through being expelled from 'mainstream' schooling, such as, being placed in bilingual units to 'contain' Māori; being 'streamed' out of the top classes; and 'bright' students not being able to study te reo Māori. However, at the same time the women are 'marked' as being different. For example, a 'symbolics of blood' works as an organising trope embodied in the women through complex disciplinary techniques employed in schools. It is the notion of difference that has a deep-seated ambivalence that works to make the Māori women scientists different from other Māori as well as different from academically successful Pākehā – "*almost the same but not quite*" (Bhabha, 1994:86, original emphasis), While often having taken individual 'journeys of isolation and alienation' (Casey, 1993), at the same time, as intelligent Māori girls who have refused to reduce their identities, they have carved radical interpretive possibilities for themselves in becoming scientists.

CHAPTER SEVEN

Brown bodies in white coats: In the workplace

Out of the 3,839 people employed by seven Crown Research Institutes (CRIs) 57 women, or approximately 1.5% of the total employed, identified as Māori women[1]. At the time these data were collected in 1998 there were no Māori women in management positions, two were classified as scientists, 15 as science technicians and 40 as 'support' staff that includes cafeteria staff, administration staff and cleaners. Such statistics are always going to be problematic depending on who chooses to identify and when. For example, Madeleine has identified herself to me as a Māori woman scientist but not in the statistics of Māori of the CRI that employs her. She begins with telling me that she has not been to any of the hui (or meetings) her organization has for Māori staff to get together:

> I have a bit of a problem with that stuff. It just felt like another pressure because I find like it's a pressure being a woman and it just feels like it's another one. I have to say that I haven't identified myself. Basically [Māori colleague] told them that I was coming to the CRI and I was Māori. I felt it wasn't my choice to hook up with it and so I felt uncomfortable about it.

Madeleine begins to highlight here the complexity of subjectivity and authoring our own identities showing that there is a difference between how she sees herself and how she is 'seen'. Madeleine realizes in this circumstance she is not the author of her own subjectivity. She wanted to choose but her colleague 'knows' she is Māori. In other words, she may not identify as Māori in her institutional statistics but she has been 'identified' (Bhabha, 1994; Fuss, 1995; Butler, 1997). She speaks about not having gone to the workshops and hui where Māori staff meet and discuss issues:

> I guess I'm also at odds with what the CRI is doing. I don't want to be a statistic. It's almost like you know they feel good because they've got a

---

[1] These statistics were not available through Government sources so I constructed a questionnaire (see Appendix F) and sent them to the CRIs to ask for them. Seven of nine CRIs responded with data, one wrote saying the data was not available and another made no response at all. Conversations with the human resource representatives of the seven CRIs that did answer indicated the majority of them had some difficulty in supplying the statistics, as they were not collated as part of their own employment records. See Appendix G for results.

woman scientist and I don't want them to feel even better because they've got a woman scientist that's a Māori. I mean, I feel tokenism in the big time.

Upon further talking Madeleine explains that her concern is not just about being 'the token Māori woman' in the institution but also about what identifying as a 'Māori woman scientist' might mean to the institution:

> I'm a bit worried about what is expected. I don't want to find myself in a position of being seen as a Māori woman when I don't even know where I come from. I think someone's going to find out one day. ... I think I've opted out actually because I don't know what's expected of me. I don't know what goes with the label and I don't know what they expect me to do. And there's no way I want to turn up somewhere and [have someone] say, "Hey, I'm your long lost rellie". My God, that'd be excruciating!

While Madeleine speaks of 'not wanting to be a statistic' and to be considered as tokenistic, she also speaks in terms of 'safety' for herself. Madeleine suggests that she is an impostor or fraud and may be 'exposed' if she claims to be a Māori woman. The exposure for Madeleine is her "not knowing where she comes from" or not knowing her whakapapa. Authenticity as a Māori woman for Madeleine is about knowing 'the rellies' or relatives. Had Madeleine identified as a Māori woman at work, she would contribute to two lots of institutional statistics. The CRI she works for have an Equal Employment Opportunity (EEO) Policy that has specified targets for women and for Māori but none for Māori women (Manaki Whenua, n.d.). Hence, while they 'doubly inscribe' Māori women by including her in both categories – a Māori and a woman - they can reach those targets and exclude Māori women because they recognise no such category. The point here is that Madeleine's identity has become problematic in and through identification by herself, her colleague, and the institution.

Scientific institutions in Aotearoa New Zealand, particularly governmental institutions such as the CRIs, have attempted to be more 'inclusive' of Māori in the last decade (see for example, State Sector Act 1988, Section 56, Clause 2). However, as Madeleine's narrative above indicates, identity formation for the Māori women within the institution can be fraught with some difficulty. In this chapter I examine the discursive positioning of 'Māori woman scientist' in the institutions and workplaces, while at the same time exploring how the Māori women scientists respond to this inscription. I argue that Māori women scientists are constituted as subjects in multiple and contradictory ways through 'allowed' institutional positions, by themselves and by others. Shirley Malcolm (as cited in Warren, 1999:190), an African American woman scientist, states

I didn't, nor do other minorities – both majority women and minority men and women – in science leave our life experiences at the door of the lab. There is a set of experiences that define me, and this goes into my work.

If this is so, how do these experiences manifest themselves in the work of these Māori women scientists? Do the workplaces construct Māori women scientists' subjectivity in a way that is congruent with how the women see themselves? And if not, how do the women mediate those differences? First I examine how 'Māori woman scientist' has been constituted in their workplaces, such as their experiences of being asked to be on various official committees. I then explore the strategies employed by the Māori women scientists to 'claim' their subjectivities in relation to the institutions' expectations. I argue that this is done in order to 'resist' fragmentation and maintain some coherence in their 'Māori woman scientist' identity. And lastly I return to Maryanne's cloak story that opened the thesis to argue for seeing 'otherwise'.

Disciplining identity

Many of the women told me of how they saw themselves as giving the institutions 'authenticity' through the workplaces appearing to incorporate Māori values. In many of the narratives the women spoke of being ambivalently or contradictorily positioned by the institution, which often resulted in some anxiety for them. Foucault argues there is a political investment of the body that is bound up with its economic use:

> ... it is largely as a force of production that the body is invested with relations of power and domination; but, on the other hand, its constitution as labour power is possible only if it is caught up in a system of subjection (in which need is also a political instrument meticulously prepared, calculated, and used); the body becomes a useful force only if it is both a productive body and a subjected body (Foucault, 1977:26).

The women's narratives suggest that the construction of what it means to be a 'Māori woman scientist' in science institutions can be viewed in a similar manner. This section tells how the Māori women have been produced discursively within the institution. The narratives in this section show that the women were 'subjected' by agencies external to themselves. At the same time they are narratives of an effect of that subjection. I have divided the section into three parts showing different, if overlapping, interpretations. They include being asked to educate others, not being 'proper', and receiving impossible invitations.

157

Educating others, emissaries for Māori

Some of the narratives suggested that the Māori women were expected to be encyclopaedias of information on all sorts of different aspects of their complex cultural heritage. Uma Narayan (1997:125), in her exploration of the roles of 'Third World' subjects working in Western contexts, calls this the "emissary position". From the experiences of the Māori women scientists this was a very common interpretation of their role on various committees. The expertise that these Māori women are meant to have range from the esoteric to the mundane, from matters of history to contemporary issues. For example, Diane recalls expectations from her colleagues:

> I'm expected to know. My te reo Māori is minimal. So I'm expected to know what every place name means. I'm expected to know what everybody's name means. I'm expected to be able to "explain" all this Māori stuff. Or any issue that's public or in the media.

Jane agrees: "you're supposed to have an opinion on everything [Māori]". A significant number of the women related cases of being positioned by colleagues as 'knowing' everything and anything that was connected to 'Māori' by the mere fact they identify as Māori. Sometimes it went further than any cultural heritage or even 'translating' Māori words as Maia relates:

> When the whole Māori fishing thing came up years ago, I felt I was answerable for anything that, any Māori group [did], any gang related stuff. I'd get it, I'd hear about it. I felt like I was it was on my shoulders. Anything that any Māori did it was all on my shoulders.

Many of the women spoke about being seen as having the 'responsibility for everything Māori'. The women, in these related circumstances, were seen as 'speaking for' and 'accountable for' all Māori. In other words, they stand for 'Māori'. Homi Bhabha (1994) refers to this as metonymy or the substitution of a part for the whole. In this case cultural difference is 'fixed' in the visible object – the individual. Whilst such inquiries are probably well intentioned and colleagues have a genuine interest, these women are positioned as 'emissaries' assigned by others to convey the 'knowledge' of the Other culture.

This positioning of the Māori women scientists has served to confuse and anger some of them and to suggest that they are not playing a 'proper' role of emissary for Māori culture. Sophie sometimes felt the answers to some questions were obvious and when she did not 'know' the answer to her colleagues' questions she felt 'dumb' because she should know:

> ... because you are a Māori, they [her colleagues] want to know your opinion. You have to explain things sometimes that are really self evident for us. And [sometimes] you really don't know anything about it. You really can't do most things so then you're made to feel really dumb because you should. You should know.

Sophie's metonymic presence acts as the sign of 'cultural difference'. As such, she is subject to the effects of practices where the production of cultural differentiation is seen as a sign of authority (Bhabha, 1994). When she cannot be 'authoritative' in her response she is angry with herself and doubts her own 'authenticity' – "You should *know*'". At the same time, the statement is a demand for the recognition of her access to the 'subjugated' knowledge – "You *should* know". Ana recognises this subjugation when she is constantly asked about her ability to speak te reo Māori:

> And I always get the "Oh do you speak Māori?" "No I don't". "What? You don't speak Māori?" You know I get that all the time and it's hard enough to be able to live with that anyway but I just feel like saying, "I'm a product of this society".

These stories suggest that their colleagues, often Pākehā, can be treated as individuals and as such can claim and be allowed legitimate ignorance. However, Māori individuals are constructed as having collective responsibility for 'Māori interests'.

Anxiety about what might be expected of them when they were asked to go on committees was also a topic of conversation. For example, Madeleine's ambivalence about her identity raised at the beginning of this chapter causes her stress when she is asked to act in official capacity on a science research funding committee:

> If they want a woman that's Māori friendly and part Māori I'm real happy to go forward, but if they want me as a Māori woman in science I don't feel able to be there because I don't have any [family] connections. [...] I just feel a fraud. But not in terms of being sympathetic and understanding and not being prejudiced. If you want someone like that I'm happy to do that.

Madeleine 's reluctance to be on any committee is centred around a 'crisis of origins' (Minh-ha, 1989) where she sees herself as being 'inauthentic' as 'Māori' and hence, having no authority. Ana expressed similar concerns about being approached for a possible nomination for a position on a national conservation group but her reluctance is centred on the motivations of the group itself:

> Part of me was saying that would be a really good opportunity. I'm into conservation and it may be a way of having some influence over things and to bring Māori issues to the fore. But the other half of me was just a bit reluctant thinking 'what are the motivations of these people?' So I was caught between this. [I asked myself] "Do I want to be the token Māori woman on this executive"?

159

Trinh Minh-ha (1989) reminds us that in extending the invitation, the inviters get to decide who is authentic and what is authentic. The power to confer authenticity is simultaneously a power to call authenticity into question. Both Ana and Madeleine recognise the problems that surround such positions. The function of the Māori 'insider' can be to introduce 'difference' into the conversation or group's work. However, the demand for difference can be confusing. For example, when you are a single voice it can come to stand for 'the Māori voice'. While the dominant culture resonates with "polyphonous richness" (Nayaran, 1997:143), the culture of the Other is seen to be seamless and monolithic.

Maia accepted an invitation to represent Māori in science on a Māori advisory group to the New Zealand Qualifications Authority (NZQA), an institution that monitors the quality of qualifications in New Zealand's education system from senior secondary school through to tertiary and private training institutions. The advisory group consisted entirely of 'Māori' and mostly men. Maia recalls:

> I actually felt really intimidated there. Most of them were men and they were all quite powerful [like] speaking on behalf of the Minister of Education. Most of the time they talked Māori. And [in] the science area I was this lone little Māori woman. [I felt] really intimidated because of the authority and the all the hype. There was a lot of jargon words that I'd never come across and I was ignorant. When I went to [the meeting] I thought I'd feel more comfortable and it just went over my head. And I thought, "I can't win". I've sort of got a foot in each and I'm here drowning. So I didn't end up going to any [more] of those.

Maia felt intimidated and excluded through the presence and absence of language – both te reo Māori and the 'jargon' needed to join the conversation. In addition, Maia had expected, unlike in the other women's narratives above, to feel comfortable among Māori as a 'Māori woman scientist'. So, while Maia identifies strongly as Māori, being on this committee produced an unexpected ambivalence structured around language and being a woman. According to Fanon (1967) to be exiled from language is to be dispossessed of one's subjectivity. This appears to be true for Maia here. While Maia identified as belonging to this group she did not feel accepted by them. The shifting and contradictory subject position only works to keep identity at bay while she cannot access te reo Māori or the jargon. Trinh Minh-ha (1989:94) argues that authenticity that relies on " 'undisputed origin' is prey to an obsessive *fear:* that of *losing a connection*" (original emphasis). For these women, in their desire for coherence to their identity, the undisputed origin has been called into question through threats of interruptions, disseminations, and suspensions.

Legitimating crises

This section explores narratives that display what I have referred to as 'legitimating crises' where the women have spoken of incidents where their claims to being a 'Māori', 'woman' and/or 'scientist' have been threatened through professional discourses. For example, Marie identifies strongly as a Māori woman – she looks Māori and also carries a Māori surname. These things lead Marie into thinking that 'being Māori' and 'being identified as Māori' detracts from what people think about her capabilities as a woman scientist. Marie works in the forestry sector - a very male dominated industry. She begins by saying she has a wonderful boss but others from outside her immediate environment see her differently.

> I feel like when I'm outside of the CRI that people don't expect you to be able to do things because of the way I look sometimes. I feel like I'm being pre-judged all the time. ... I hate this. When you go to a conference representing the CRI I always have this feeling that people think I'm less than what I am. Maybe I look scary but people will go up and talk to the guys and just start raving away. But people don't come up and talk to me in the same way. And I don't know whether it's because they think that I'm not a scientist so therefore I [am] not as valuable to talk to, or because they're scared to talk to me because I might be some rabid feminist activist or something but I just feel that way.

Marie suggests that she is 'pre-judged' through having the visual markers of being a 'Māori woman' and that this interferes with her identification as a 'scientist'. She notes that her male colleagues do not suffer the same form of alienation. Furthermore, she proposes that even when people cannot 'see her' that her Māori surname is enough to give people the idea that she is not the person to contact.

> Like I've written a paper and there's two names on it [and] people do remember my name but they don't bother to ring me. They always call the other person Michaela[2] [female] and I feel like as if because they think that the other person is the person who knows more about this topic because their name might be Smith. Like I had a student working for me and I'd sent out some letters asking forest owners about their plantations and what they had and my name was definitely first and yet so often people would ring for Michaela [the student] who I just put at the bottom. Half the time they'd ask for Michael [male].

Marie resembles her scientist colleagues on paper but is betrayed by a striking feature - her name – that identifies her as both Māori and woman. Marie is doubly marked in her name. However, she finds that some people think a 'Māori woman' should not be a 'scientist' and disclosure of this comes to her when she tries to publish papers under her name. Foucault (1984:105) in his paper 'What is an author?' argues:

---

[2] All names are pseudonyms.

> ... that an author's name is not simply an element in discourse (capable of being either subject or object, of being replaced by a pronoun, and the like); ... It would seem that the author's name, ... seems always to be present, marking off the edges of the text, revealing, or at least characterizing, its mode of being. The authors name manifests the appearance of a certain discursive set and indicates the status of this discourse within a society and a culture.

For Foucault the author's name on a text is part of the discourse of 'author' function – that is, appropriation, ownership and authentication. In other words, naming is about authority. For Marie, it is about the authority of being a 'scientist' while also being a 'Māori woman'.

Marie's narratives also highlight issues of "illusory separated identities" (Trinh, 1989:104) that suggest a form of dualistic reasoning. Here her concerns focus on the split 'Māori/woman scientist':

> I can never tell whether people look at me and see me as Māori or see me as a woman scientist. And if I get treated differently I can't really say that's because I'm Māori or because I just feel different.

The dualities raised by Marie – Māori/woman, scientist/woman, scientist/Māori –were not unusual among the women's narratives. Marie's overall perception was that 'Māori' and 'woman' interfered with the authority of 'scientist' but sometimes she wasn't sure which. That 'woman' may be a secondary attribute to 'Māori' (or vice versa) is a perception that is consistent with a logic of acquisition and separation. Marie is being called into science as a Māori and possibly a woman but being denied her existence as a scientist. Her name 'exposes' her and she is characterised in racial and sexual terms no matter that she is also a scientist. Science has no bodily origin and, perhaps by implication, neither does the 'scientist'. According to Marie's narratives a 'scientist' has an unmarked (white) body and an unremarkable name. Marie, on the other hand, is caught in her marked body that is named and inscribed with meaning beyond her control. Marie can only fantasize about wholeness – not only is she fragmented but she is at once "invisible, visible (exposed), hypervisible, and pathologized in dominant discourses" (Hammonds, 1997:93).

Arihia relates a story about her career and her construction by others as a 'Māori woman' – a nurturer. While working as a tutor for another department in her university, and having completed her doctorate in science, Arihia was contacted by the medical school to ask if she would help mentor Māori and Pacific Island students

162

who seemed to be struggling with some of their coursework. Arihia, who does not carry the visual markings of being Māori, was identified as such by her name:

> During the course of this discussion they said, "Have you got any Māori ancestry in you?' 'Where did you get your name from?" I said I am of Māori descent and I would be interested in helping them [the students]. So that's how I got involved.

Arihia ended up developing a full and formal undergraduate programme over the next three years that was based on a tuakana/teina system where the older students helped the younger students. While she managed to obtain a 0.2 time allowance "about 10 years" after she had begun, she has since reflected on this period in her life:

> I don't think its any accident that I was a woman, and that I was a tutor. I think the medical school saw me as the potential person to do this job. I was never encouraged to get off the tutorship. Nobody [said] "Look, don't stay on a tutorship, its a dead end job. Let me help you get a lectureship". Now to get a lectureship you've got to publish.

The medical school already had two senior Māori male staff of their own at the time Arihia was approached and, as well published medical scientists, it was not their job to run a support system for Māori and Pacific Island students. Instead, the medical school sought out a junior woman colleague in another department, Arihia, to do it. Arihia got drawn into helping out because she was helping Māori students. Arihia draws the comparison between being a woman or 'nurturer' and authoring papers. If an author's name on a text is about authority, as Foucault (1984) has argued, then it should not be unexpected that her male science colleagues are promoted ahead of her. By not authoring, Arihia does not make claim to being authoritative and, hence, a 'scientist'. However, the qualities of authorship are also in opposition to those of nurturing. Nurturing is usually associated with being a 'feminine' quality that is seen as being 'natural' in women and is associated with the family, mothering and children (Jordanova, 1980).

Ana experiences her CRI as seeing her 'Māori woman' status as limiting the 'scientist' work. Ana has done her masters of philosophy thesis on native bird management with supporting work in ecology and conservation management. She recalls she read of a new bird-harvesting project to be carried out in predominantly Māori communities advertised by a CRI and, thinking she was well qualified for the job she made an application:

> I actually applied for the 'Scientist - Māori Issues' job. They were advertising it [to head up] the bird-harvesting project. I thought that's bringing in elements of everything I'm interested in - Māori, the bird, [and] conservation so I went for that job and didn't get it. They gave it to a male. I think I wasn't going to

get it to start with because there [was] this other job - it [was] only a six-month job. It was in areas that weren't of interest to me – possums and pigs. They said, "If you don't get this job [Māori issues] would you be interested in that one?" I thought well, here we go. So I said okay. So it turns out that I did get the other [six-month] job on possums and pigs.

The person who was appointed to the position 'Scientist – Māori Issues' was a Māori male with a social science background. Ana suggests that she was probably not going to get the position, despite being qualified in science research that the position required, and being and identifying as Māori. At the same time she implies that it may have been that she was not a 'Māori male'. This is seen by many as a 'Māori cultural dilemma' that recognises a form of patriarchy in Māori institutions. Kathie Irwin (1992:18) has argued that women have lost jobs in the public service to Māori men because women "can't speak on the marae (ceremonial meeting ground)"[3]. If women are to travel to initiate projects with Māori communities they need to be accompanied by a male, which can be seen as an extra cost to the institution in order to get through the formal protocols. While some Māori women have contested this status given to Māori men (see for example, Binney and Chaplin, 1986), the point is that it is common practice throughout the marae of Aotearoa New Zealand.

However, at issue here is that someone else has decided that Ana is not a 'scientist' for a Māori research position or not 'Māori' enough for the scientist's job. Either way, she is seen to be 'inauthentic'. In addition, being a woman may have worked against her in this space as well. Ana suspects patriarchy at work here. The discourse of patriarchy places Māori women in a 'no win' situation when it comes to leadership, including scientific leadership, when dealing with Māori issues. Kathie Irwin (1992:17) has argued that the changes to Māori culture have seen "bonds of patriarchy" exchange between Māori and Pākehā men. She argues that Pākehā men are allowed to speak on a marae in English ahead of Māori women who can speak in Māori. As such, she has suggested that power has been transferred between men - their gender is given priority over the bond of being Māori – what bell hooks (1995:2) refers to as "moments of interracial homo-social patriarchal bonding". It would appear that Māori males have a 'cultural advantage' over Māori women and it can be supported institutionally by Pākehā men who largely manage the institutions. Ana got

---

[3] For most marae in the country, women are not allowed to whaikorero (make speeches) on the marae atea (space in front of the meeting house) despite their role as kaikaranga. The marae-atea is where all formal preliminary protocols are undertaken and is unavoidable. Once the pōwhiri is over and everyone retires to the wharenui, then anyone can speak given permission.

the possums and pigs job as a 'Māori woman scientist'. The Māori male got the leaders role – 'Scientist' – with an undergraduate degree in social science.

The term 'honorary white' is most often a term associated with "an ideology of pigmentocracy" (Yamamoto, 1999: 64) and attributed to groups of people who are not noticeably 'dark'. However, as Trinh Minh-ha (1989:66) argues that 'white' has always been used to mean 'no colour' and furthermore, that one cannot eliminate colours with respect to people without eliminating the people. Maia relates a case of being an "honorary white" at her workplace and how it was handled:

> I got asked by David if I would like to become an "honorary white". He said you must be one of the few Māori working in New Zealand. I didn't say anything. When you're eighteen and he's your boss you don't answer back. I was already that Māori girl that had got pregnant and had a baby. I just looked at him and I burst out crying.

The notion of an "honorary white" being associated with Māori is recalled from the All Black tours of South Africa in the 1960s where Māori players were 'allowed' to go and would be treated as 'honorary whites'. South Africa, in the grip of apartheid, thought it was a compliment to Māori to be treated as such in South Africa. To be an "honorary white" is to suggest that you can pass as white or Pākehā, in both body and privileges. In a moment of interpellation "the conflation of colour and character reveals the socially constructed and historically contingent nature of "racial formation"" (Yamamoto, 1999:64). Furthermore, the term 'honorary white' allows both difference and sameness to circulate at the same site. Maia is different from other 'whites' by being honorary – a temporary arrangement of 'sameness' while being in paid employment. In this case it is not that Maia looks Pākehā but that it places her as being different from other Māori. That is, in being 'honorary white' she is 'inauthentically' Māori and white at the same time.

Calling out for Māori women in science

Most of the   CRIs are beginning to recognise Māori as paying clients of science, especially with the major Treaty of Waitangi settlements currently being made[4]. Together with the Crown Research Act (1990) requirements that CRIs include more Māori, there is a move in several institutes to employ more Māori and to incorporate Māori protocols and practices where appropriate. One CRI in particular has

---

[4] Since 1975 successive New Zealand governments have accepted that Māori have suffered historical grievances and governments have been keen to 'settle'. Most of these settlements have been in the form of money, lands and shares in businesses.

introduced Māori protocols in welcoming new staff, visitors or other Māori groups. One of these protocols is the pōwhiri or Māori welcoming ceremony. To execute a pōwhiri, the protocol requires a Māori woman to karanga (call) the manuhiri (visitors) to the place of welcome. Traditionally, this was a procedure done on the marae but a number of the government institutes in Aotearoa New Zealand use the ceremonial practice in their places of work. Four of the Māori women scientists work for, or in association with, one particular CRI that has incorporated this protocol for groups of Māori and overseas visitors. Each of these Māori women scientists works on a different site spread throughout the country. However, the two closest to the headquarters of this CRI have been called on to be the kaikaranga for the institute.

Helen speaks of the expectation by her employer for her to act as a kaikaranga for them:

> It started one year when I was supervising the New Zealand Conservation Corp at DSIR[5] and they had to have a Māori component. We took the Corp onto the marae and went through all the protocol. I went down and some of the women on the marae (Māori meeting place) tutored me to do the karanga (call) and so every now and then [the CRI] wheels me out whenever they want somebody to do the karanga. In many ways I feel quite awkward about doing that but on the other hand I guess I am their senior Māori when it comes to that. It's really awkward. I did it a couple of times then they all assumed that I knew how to karanga and that I was quite happy to do it for whatever occasion.

Helen initially assumed the role of being kaikaranga so that the young students in the Conservation Corp[6] could do their Māori 'component' for a qualification. At this level Helen took steps to learn the protocol properly to enable her to carry out what was required. However, identifying as Māori and 'the learning of the karanga' has helped position Helen in the organisation as to their expectations of Māori women. The effects of what Butler (1997) has argued can be seen in Helen's account because, as the pressure of subordination comes on Helen when the CRI "wheels" her out, she assumes that power and becomes "the senior Māori when it comes to that".

'Doing' the karanga as a Māori woman made her a Māori woman for her organisation but Helen was still very ambivalent about it. This appeared to stem from her being unsure about being what is to be 'Māori' and about the place in which she was

---

[5] Department of Scientific and Industrial Research. This was one of main government scientific research departments that was broken up in 1991 to form several Crown Research Institutes. Most of the staff transferred from the DSIR to CRIs.

carrying out the karanga, whether she was doing it correctly, what it felt like and who was authorising her as the kaikaranga:

> They'd [CRI] put me on selection panels for the Māori scientists. They'd [the applicants] bring all the whānau (extended family) on and I'd have to karanga them on. In some ways I feel uneasy about it, then other times I could stand on the marae and karanga and it would just feel right - this is part of who I am, yeah. But I never know how much it is that I feel a bit uneasy in the role or how much is other people thinking 'what's she doing there identifying as Māori?'

From doing the Māori component in the Corp to doing a karanga for Māori people accompanying their whānaungatanga (relatives) is very different for Helen. The 'authenticity' of the manuhiri (guests) is also brought into her question about her own authenticity. Māori who accompany their young hopeful scientist applicants could well be steeped in the knowledge of tikanga (cultural protocols) and te reo Māori. There is a fear of the unknown. Helen is blonde, blue-eyed and does not 'look' Māori. In other words, she is not usually identified visually as being Māori by other Māori or Pākehā. However, she has chosen to identify herself as Māori, which for her has obligations. Helen identifies the gap between what her institution thinks it means to be a Māori woman and what she has established as her own identity as a Māori woman. There are complex relationships at work here.

For Helen doing the karanga in the science institution in which she works makes her feel 'less Māori'. The Māori woman's body is being called into science through Māori protocols. She hints at this when she says that she is placed on appointments committees for the Māori scientists to do the karanga. She gets called not because of her intelligence or ability at science but because the karanga lends authenticity to the organisation. However, it feels more comfortable at the local marae. At the marae Helen has her oldest child in the kōhanga reo (Māori language pre-school) situated there and she is on the marae and kōhanga reo committees. At the marae, while not her own, Helen has many connections and status from the relationships built up. These people recognise her as Māori and she has a commitment to the development of Māori language and culture. Her acting as kaikaranga at the marae is a place where her Māori woman status is recognised and respected. It is Māori who have authorised her to be kaikaranga at her local marae.

---

[6] The Conservation Corp are an organisation of young people who meet on a regular basis to learn new 'skills'. The awarding of badges indicates the receiver has passed the requirement.

Deborah Britzmann (1998:102) suggests that "the body is neither lived nor imagined in instalments and that, taken together, markers of the body such as race, gender, and sex act upon each other in ways that are unpredictable". Māori women scientists do not live in a vacuum, nor are they 'fragmented' and reducible to the sum of their parts and neither do they leave their experiences, embedded with desires and fears, at the laboratory door. From these personal narratives it would appear that many of the women were being asked to perform as Māori/woman/scientist, or combinations thereof – to 'represent' – and at the same time being told that they were not Māori/women/scientist. In other words, their workplaces, and other institutions, had expectations of what it was to be a 'Māori woman scientist' and how that subjectivity should be expressed. As argued in Chapter 2 'to be subject' is to be dominated by a power external to oneself. However, power can also form the subject as well "providing the very condition of its existence and the trajectory of its desire, [so that] power is not simply what we oppose but also ... what we depend on for our existence and what we harbour and preserve in the beings that we are" (Butler, 1997:2). In other words, we simultaneously internalise terms imposed on us and depend on those terms for our existence, at least politically. A number of the narratives here suggested that the women were positioned to think of themselves in dualistic ways as they constructed their subjectivities in terms of 'dilemmas'. However, the women also work to find coherent subjectivities and it is to these narratives that we move in the next section.

Overcoming fragmentation

For Māori women scientists the condition of dispersal and fragmentation is not to be achieved but to be overcome. The following narratives reveal strategies the women have used in order to keep themselves 'whole' in the face of discourses that split them asunder. The women have responded in many ways to the discursive positioning of them by the institutions. Already we have encountered Maia who 'walked away' in response to an environment that she could not identify with. The narratives, like life, are not clean in their conceptions, telling or even happening. The stories that follow are in this section because they focus on what the Māori women scientists do and thus become.

Passing as 'Māori', passing as 'scientist'

The idea of 'passing' can be seen in various ways. Butler (1993) uses the term when describing the character Clare, in Nell Larson's book *Passing*, with regards to her 'passing' as White when she knows she has Black ancestry. In the case of Clare she hides her Black ancestry, helped by being fair-skinned. The women in this study also spoke of passing but in other ways. While Clare 'passes' in life, some of these women 'pass' on occasions. This leads to another difference in that while some can pass as Pākehā they do not do it from a position of knowingly deceiving others. However, first and foremost about 'passing' is the visual difference for without carrying an unmarked body there is no possibility of passing because "unmarked bodies constitute the currency of normative whiteness" (Butler, 1993:170-171). As argued above, passing for white means having 'no body' or even being disembodied.

Jane sees her being blonde and blue eyed as being 'lucky':

> I'm lucky nobody knows [I'm Māori]. I'm the opposite. I mean they just don't know. Some do but the majority don't know.

Jane passes between categories of Māori and Pākehā with confidence. Jane had been brought up surrounded by her Māori side of the family from a young age, and it was a discovery when she went to high school to 'see' that she was "white" and not "brown" like her cousins. However, for Jane there appears to be no internal anxiety caused by 'being Māori' but not being 'brown', and all the implications this can bring. Arihia, on the other hand, does have some anxiety because, even though she can pass as Pākehā, she makes an ethical choice to be Māori. Arihia relates her story of 'passing' and the dilemmas it brings:

> Even though I had a Māori name, it passed as Pākehā and I acted and was brought up as a Pākehā. If they [Pākehā] do know [I have Māori ancestry] they don't see it as important to me. "You're still one of us". I am always having to think do I come out and say, "Look I just think you're disgusting. I think that sort of racism makes me sick. Stop it. Don't do that." Or do I just shut up, look out the window and pretend I'm not hearing it. I'm increasingly confronted with those [situations]. It sets you apart, in a sense, amongst your own people - your own Pākehā - your love of things Māori, your feeling, your knowledge.

Arihia has what she calls a Pākehā upbringing and has no sense of denying herself either. She acknowledges that she has Māori ancestry but calls herself "a Pākehā Māori". However, she chooses to acknowledge her Māori blood inheritance. This is an ethical choice and it sensitises her to racism. However, being in a position of being able to pass as Pākehā, and doing so in parts of her life, she faces what Bhabha (1994)

169

refers to as the ambivalence of mimicry. Like invitations to be on committees, the invitation to accept identification as Pākehā – you're one of us – troubles her. With her decision to recognise her Māori heritage but to identify strongly with "her own Pākehā" she is placed in an impossible situation.

For Marie 'passing' is not about 'bodily markings' or ethical decisions. Passing for Marie is about 'achieving':

> More than seeing myself as a role model for young Māori women, I see myself as a role model for successful Māori people in terms of Europeanised Māori. I see myself, as being someone who doesn't fit the stereotypical mould of Māori being non-achievers or technicians or the cleaner of something. I feel I'm challenging those perceptions in the eyes of people who have the power to let more Māori people have jobs. And also some people just have never come across Māori people in their lives. They just see [Māori] people as those who live in the Ford Block[7] and their being visible to these people who might otherwise have had prejudices.

Marie 'passes' in her mind because she has 'achieved' the status of scientist and has passed beyond the stereotype of Māori. In doing so, she suggests that she has taken up the discursive positioning offered to 'achievers' and these conditions have provided for her a trajectory of desire (Butler, 1997). It is a desire that Marie depends on for her sense of self – a scientist no matter what the body markings. Marie firmly wants to believe in the power of the discourse of 'meritocracy' – it is only effort that prevents one being a 'Māori woman scientist'.

For Katerina, the self-recognition worked differently. She remembers that she used to 'mirror' Pākehā but is reminded that she is Māori when she is with Māori. Katerina looks Māori in that she has dark skin and hair but can deny her markings when she is with Pākehā – she can 'disembody':

> I remember, a few years ago, I felt more comfortable being the only Māori in a room full of Pākehā people. …. I noticed it more if there was a Pākehā person in a room full of Māori people than if I was a Māori person in a room full of Pākehā people. I didn't feel anything different. But if I was in a room full of Māori people and there was a Pākehā person it [was] noticeable. Whereas when I was in a room full of Pākehā people I didn't think I stood out as much.

Katerina only sees her difference when she is with people that are the same as her. Bhabha (1994:45) argues that "the question of identification is never the affirmation of a pregiven identity, never a *self*-fulfilling prophecy – it is always the production of an image of identity and the transformation of the subject in assuming that image"

(original emphasis). Katerina recognises that she must 'disembody' for her to be accepted by Pākehā people. Kristeva (1982) argues that abjection designates a cast out status within the terms of sociality. In casting off her body, Katerina finds sociality. In casting off the body, she has cast off the 'Māori woman' and become a scientist – a mind with no body. The issue here is that both 'sex' and 'race' have bodily origins which means they can not be externalised or completely expelled. This materiality of identity (Butler, 1993) does not translate into being a scientist. However, more importantly for Katerina is that which is cast out cannot re-enter the social without dissolution of identity. The desire for sameness requires Katerina to disembody – to forget her markings, to forget her colour, to have 'no body'. The body of the Other, that is in noticing other Māori around her, is what reminds her of her difference.

Rather than 'opting out' of the body, another way of passing is to remove oneself from the situation that causes the anxiety. Maia no longer feels out of place in her place of work – the laboratory of a private company. Once she had graduated with her first class honours degree, which she completed partially part-time while working at a government research institute, Maia shifted to her current workplace:

> I really like the people here. I find they're so different from the research people who are very highly educated. There [were] a lot of Dutch people and a lot of English people, more than Kiwis working at the Institute. And to come here - there's just so many Māori people. Most of them [Māori people] are working on the line but they're here. And I can say "kei te pehea koe?" [How are you going?] I mean I can actually start to feel for the first time in my career life like an actual Māori person.

Maia could not find her identity with the Māori group in NZQA but can among the group at her work. Being able to identify with other Māori is important in Maia's life. She tries to identify what the difference is between her previous job and the current one and attributes it to their being more Māori in the company. In this sense Maia can 'feel the same' and be comfortable, sometimes confident enough to use a smattering of te reo Māori. The difference in education, from a "very highly educated" Pākehā and European immigrant workforce in the research institute to Māori "working on the line" has a lot to do with Maia's feelings of comfort. This situation begs the question, 'who affords authenticity?' In this case, the "Māori people on the line" give Maia this. In this workplace, Maia is back in the town where she was raised and the Māori people who work there include family and friends. She is among her tūpuna literally

---

[7] This is a low-socioeconomic, predominantly Māori populated, state housing area in a regional city.

171

and this is acknowledged. Māori people here know who she is and where she comes from.

However, passing is an identity construction that occasionally does not work for the women. Maryanne is "one-sixteenth Māori" and would pass for being Pākehā:

> People are usually surprised when I tell them [I am Māori]. I've told several people that you were coming, and they [say] "Oh, oh...are you Māori?" And it isn't as if I have ever kept it a secret.

While she has not kept it secret, she does not look Māori. Like Arihia, Maryanne is not deceiving anyone by not telling. She tells people she is Māori when she is asked but makes few moves to say otherwise. However, a recent experience moved her to 'come out' or expose her background.

> I went on with two days intensive Treaty[8] [workshop] everybody knew everything about me by the time that was over because that [being Māori] all came out. It [the workshop] was really for Pākehā, and I wanted to go because I need educating in this area. [I asked] would it be okay, and they said "Yes, sure." But having got there I felt I should admit my background because I didn't want to say at the end of the second day, "Well, actually, I've been listening to all you racists ..." and so fairly early on I let it come out what my background was.

Maryanne's 'coming out' was a form of 'confession' because she had transgressed into a place where 'Māori' were not invited. In other words, there was something Maryanne was 'hiding' – her 'Māoriness' – and the workshop was a way in which she was made to 'show' what was not available to the eye. Foucault (1981) has argued that the confession is a technique for producing truth and that we confess that which is the most difficult to tell. He continues:

> The confession is a ritual of discourse in which the speaking subject is also the subject of the statement; it is also a ritual that unfolds within a power relationship, for one does not confess without the presence of a partner who is not simply the interlocutor but the authority who requires the confession, prescribes and appreciates it, and intervenes in order to judge, punish, forgive, console, and reconcile; a ritual [that] produces intrinsic modifications in the person who articulates it: it exonerates, redeems, and purifies him; it unburdens him of his wrongs, liberates him, and promises him salvation (Foucault, 1981:61-62).

In Maryanne's case, she was positioned such that she had to 'come out' and confess she was 'Māori' – the circumstances demanded it of her. As such, according to Foucault, the authority that required the 'confession' were her non-Māori colleagues for whose education was the purpose of the workshop. Such a confession would not

---

[8] Treaty of Waitangi.

have been necessary had she not been able to 'pass'. At the same time she disavows her own 'Māori' status by refusing the Māori network and meeting set up to address similar issues. She is 'too Māori' to be in the Pākehā workshop but 'not Māori enough' to be in the Māori network. The ambiguity of identifying as Māori and attending a course designed for Pākehā is how Maryanne could in one way reconcile being Māori and not knowing the Treaty of Waitangi.

Crossing borders

Arihia, in her own words, describes her life as if she is "frequently making border crossings from one world into another but I don't quite belong to either". In this account of Arihia's life she speaks about crossing the binaries of 'Māori and Pākehā' and 'man and woman'. Crossing borders always suggests that there is a boundary between two things and that on one side of the boundary you are one thing and on the other side you are another. The border between the two is emblematic of the duality of power being both prohibitive and productive (Foucault, 1980). For Arihia the border is one of demarcation and separation and simultaneously an interface when her two categories join. As Jagose (1993:212) argues it "is the mark of both a [...] demarcation and a prohibitive intermixture".

Arihia tries to "manage' the boundaries between the two cultural worlds she occupies. Arihia states that she has "spent most of my life trying to find out who I am" and describes her position as being "on the outside looking in". She recalls a recent incident at an "Old Girls' Reunion"[9] held in the home of one of her wealthy private school friends – the "elite Pākehā tribes" she calls them:

> The day before I'd been at Awataha [marae] at a pōwhiri (welcoming ceremony). We sat down for dinner and some were beginning to eat and I stopped and thought 'Karakia (prayer). Where's the karakia? Then I thought remember where you are this is not a Māori occasion. I was actually with some fellow boarders [so] I said, "Excuse me now, how about the boarders grace? Lets say grace". But where it was coming from was actually the whole Māori thing that one would not eat the meal without a karakia. When I went home I was almost stunned by the way I was struck with this need to engage in a Māori ritual that I had to translate into a Pākehā one and find common ground.

Arihia suggests here that she is always looking for analogies and substitutes, such as "the boarder's grace" for "karakia". However, things are not that easy for Arihia in some Māori situations:

---

[9] An alumni boarding school reunion.

When I'm with Māori who don't know me and I don't know them, I'm greeted as a Pākehā. I'm used to it now, that slight hurt I have. I was down at a marae [in] Rotorua - the Tuhourangi House there. [It is] a most magnificent house. And I walked in and on the right was a most magnificent pou - a carving of an ancestor - and in his hand was a kiore (polynesian rat). It blew me away. I'd been researching the traditions of the kiore and here was this big black kiore. I just thought there must be a most wonderful story behind this [and] I'd love to know what it is. So I sat through the proceedings and at lunch-time I [asked who would tell me] some of the stories here of these pou (carving). I went over and asked [about the pou with] the kiore. I said "I'd love to know that story" and he said "Oh, not for you Pākehā". Then he added insult to injury "You Pākehā [from] the universities, you just come down here to take all our knowledge and then you go away and write about it". I didn't even want to try and break through that. I just took it all. [I] just smiled and backed off.

While what she does in the context of her boarding school reunions is not exposed as being Māori, Arihia is more visible at the marae. Arihia has been at the forefront of the debate regarding the protection of the kiore and for the Department of Conservation not to treat it as analogous with the common pest of the Norwegian rat that made it to Aotearoa New Zealand aboard ships. Arihia has written articles looking at the Western science view of rats as being disease carriers and pests and the transference of attitude by regulatory bodies to all 'rats' including the kiore. Yet the kiore is significant in Māori culture and in some tribes is considered to be part of their whakapapa (Haami, 1993). It was a Māori male that wrote of the significance and history of the kiore in Māori culture and published in an academic journal. As a result of the active work of which Arihia was part, the Department of Conservation has put aside an island sanctuary for the kiore. This is so that the kiore will not become extinct, as on other islands all rats – both Polynesian and Norwegian rats - are being exterminated in order that the islands can become sanctuaries for some of our endangered native bird species. Arihia takes a "considered" decision not to call herself Māori but to go with a much more ambiguous identification:

I frequently encounter that and because I refuse to call myself Māori. I'm a Pākehā of Māori descent and I'm quite firm in that. I'm comfortable with that. I've come to a considered decision and that's what I am. But what that means? I feel so comfortable in the Māori world because I've spent the last twenty-five years of my life on a journey of exploration into that part of my ancestry because that means more to me.

Arihia is constantly 'crossing' borders or boundaries - science/culture, Pākehā/Māori, scientist/Māori, and scientist/woman – and finds herself in contexts that mark the impossibility of clean borders as required by the symbolic (Kristeva, 1982). For example, when saying 'grace' is appropriate but wanting 'karakia' indicates the imminent 'danger' or threat of disruption that is always present. Border crossing is,

above all, ambiguous because while Arihia may release her hold on 'Māori' when she is at dinner with her old school friends, she cannot radically cut it off from herself. It is the same for others who identify her as Pākehā. While she may identify as Māori there is always the 'danger' that someone will identify her as Pākehā or something else. The borders Arihia faces, while objectified in the narratives, are borders that interface the inside of the subject and the outside, which is object to the subject.

Claiming an essence

Diane has been working fulltime as a science technician for 24 years. Her sense of identity is claimed from who she thinks she is – a standpoint of 'situated knowledge'. Haraway (1997:304) argues that a standpoint is a "cognitive-emotional-political achievement, crafted out of located social-historical-bodily experience". Diane begins this standpoint narrative with respect to her being Māori:

> I've always claimed to be a Māori and I don't even have to claim it, I just am. I don't even bother claiming it. I just can't be bothered. I just am and if anybody has a problem with it too bad. But I haven't ever worked with anybody or come face to face or been aware of anyone who's had a problem.

Like putting a stake in the ground, Diane proclaims who she is in her difference from her work colleagues. Trinh Minh-ha (1989:82) argues that to claim difference, as a 'division', is a tool of "self defense and conquest" – a form of self-preservation. Often this results from having to continually explain who you are – as if every audience is a brand new audience that has never met a 'Māori woman scientist' (or technician) before. Diane continues to illustrate what she means in speaking about how her CRI has been involved with the Tainui (tribal group in the Waikato area) compensatory claim for confiscated lands last century. The government came to an agreement to give back Crown land that was attached to research centres:

> They [her colleagues] wouldn't even know what a Māori was, but now that Tainui is on the scene they're all aware of what a Māori is. And it's been good because they've been educated. ... and now every single one of them [thinks I'm Tainui]. When I went to the NAMMSAT (National Association of Māori Mathematicians, Scientists and Technologists) Conference they said, "Is that a Tainui thing?" As soon as I said 'Māori' [it was read as being] Tainui!

Here Diane juggles with the identity of being Māori but not Tainui. Diane is of Ngāti Kahungunu, Ngāti Porou and Whānau-a-Apanui descent and is currently living outside her own tribal area. For Māori, the term 'Māori' is a homogenising term and refuses tribal differences (Smith, 1991). She suggests that her colleagues are ignorant of what it means to be Māori.

However, such a position also has difficulties for Diane from her recent work with experiments on genetic modification. In speaking with Tainui people regarding experiments using DNA she recalls:

> I can't remember the Māori words that he used but it was something like messing around with your whakapapa (genealogy). And I just listened because I've never really talked about DNA to anybody. I've never had that response and I'm really glad that he told me because I have to admit that I was probably oblivious to it. I knew that transgenics and genetic engineering... is really sensitive but I've only ever thought of it as being sensitive in a political sense as opposed to a spiritual sense. So I was really glad that he brought it up.

Diane admits to not having thought through the genetic modification work she is involved with in relation to her own cultural identity. For her, the talk with a Tainui person opened a new interpretation:

> I work with those [analytical] sorts of people and they're a weird bunch. It makes me ... my lifestyle quite Pākehā. But I don't consider I've ever lost, and I'll never, I've always had, I personally think that I've always had my Māori heart. And they can tell that I've got that. I mean the people I work with can tell that. So I think I'm different to the people I work with in that respect.

The way Diane uses the term "Māori heart" is in the sense of keeping her Māoriness alive in the space of a very Pākehā environment. Diane is creating spaces of possibility through regulated difference. That is, she is regulating her difference through her 'Māori heart'.

This discourse is about the use of the heart as a centre for her 'Māoriness' – a cultural and biological centre. In Māori culture the wharenui (meeting house) is found on marae and is considered to be the metaphor for the ancestral body. For example, the hip of the roof is called the tahuhu and represents the backbone, while the rafters are said to be the ribs, and so on. The pou-toko-manawa is the name for the centre post in the wharenui (meeting house) in Māori culture and is the post that supports the 'heart'. Generally made from the native tōtara tree, the pou-toko-manawa usually has at its base a carving of the ancestor after whom the house is named. Traditionally it was physically the place where the fire was kindled at sundown (Papakura, 1986). A fire associated with the heart is important metaphorically because of the term 'ahi kā' that refers to keeping the home fires burning. Ahi kā is about keeping your Māori connections alive when you live away from your own tribal areas by visiting your papakāinga (the place of your ancestors) to keep your 'face' alive in that place. The heart is what keeps all the different knowledges together. Diane juggles the 'boxes' of scientist, technician, Māori, woman and not Tainui. At the same time, this Māori

heart is how she stays in contact with her family and spirituality. For Diane, her Māori heart carries the 'ahi kā' – the home fires of where she is Māori.

At the same time the heart is also seen as the centre of the emotions. Trinh Minh-ha (1989:28) writes:

> Man *thinks*, woman *feels*. The white man knows through *reason* and logic – the intelligible. The Black man understands through *intuition* and sympathy. Old stereotypes deriving from well-defined differences govern our thought. Our province [native, woman], we hear, is the *heart*, not the *mind*, ... (original emphasis).

The hiding and consequent denial of the body and the emotions in their work has often caused the women anger and pain. For example, Arihia recalls an incident at a women scientists' conference we both attended, along with some of the other women in this study.

> When I went down to that [conference] I blew that talk. I said things I shouldn't have said there. A lot of it was just some of the pain and the hurt and the anger. I realised I had never allowed myself the time or the luxury to actually talk about some of the hurts and the pains in my life except in a passing manner - in a joking manner - but I suspect that deep down under there it has left a scar. I have a lot of anger in me, real anger - it frightens me at times.

Arihia found herself in a situation where she was overwhelmed with rage such that she found herself expressing it in public – at a conference in front of many people. This suggests that there is little or no outlet for such anger. Bell hooks (1995:16), in writing about rage among African Americans, argued that to express anger is "to claim our emotional subjectivity". Like hooks as an African American woman, Arihia has found it painful to think long and hard about her position as a Māori woman in science – painful enough to throw her back into silence. By acknowledging that she 'blew that talk down' suggests the anger, pain and hurt should be "repressed, contained, trapped within the realm of the unspeakable" (hooks, 1995:12). Furthermore, hooks suggests there is a presence that surfaces when the colonized express anger because it asserts subjectivity that often colonizers do not want to see. Often those Māori who have become successful, such as these Māori women scientists, have, for the most part, become very skilled at repressing rage. It is suggested that such an outburst is 'unprofessional' – there is no place for anger – so we tend to mute it and live in denial. However, rage can be a positive thing in that it calls the subject out of forgetfulness and denial and inspires action.

This discourse of the 'heart' and being Māori is similar to the argument of 'body and soul' (see for example, Fanon, 1967; Spelman, 2001). Integral to this argument is that the 'soul' is of higher worth in comparison to the 'body'. Fanon (1967:14) has argued "the Black man's soul is the White man's artefact". Fanon is suggesting that the Black man's soul does not exist outside the White man's imagination. However, what Fanon fails to portray is that the Black man's soul can be seen as part of the 'lived body' as opposed to something separate (see for example, Butler, 1993; Grosz, 1994). The appeal to a 'Māori heart' is part of an appeal to corporeality of the body as well as the spirituality.

Displacing brown cloaks and white coats

I wish to return to the story of Maryanne and the woven cloak to finish this chapter. Weaving cloaks from muka (flax fibres) is an art form that requires a lot of skill from the Māori women who make them. The cloaks can have many decorative materials woven into them, including wool and feathers, and often carry other adornments such as tāniko (a type of weaving using different coloured fibres) bands. These woven cloaks were often sought after as artefacts for colonial museums and can be found in many places in the world (see, for example Papakura, 1986:27). Maryanne recalls being given the fragment of the decorative material from the Florence cloak by the museum curator to identify:

> Now, every so often I get these interesting little sidelines. This came about because a woman at the Museum in here [the local museum] visited the Ethnographic Museum in Florence. They had this [Māori] cloak and they didn't know what the material was that was used as the decorative material. The cloak was flax – [a] normal kind of a cloak. But they thought it [the decorative material] was algal. Anyway, when they were holding this thing up, bits fell on the floor and she said, "Can I take this bit back to New Zealand. We might be able to find out what it is". So, she brought this back and eventually this little fragment came to me.

Maryanne had already established connections with the local museum through depositing family taonga (treasures) for safe keeping there so it was no surprise she was approached. Maryanne describes herself as working in the field of natural history but she began her scientific career with qualifications in plant physiology with expertise in mosses:

> By some miracle it was moss - a particular group where you can tell from a tiny, tiny fragment exactly what it is. And so this was a thin section was cut and looked at under the microscope, and I was able to say that this cloak was decorated with *polytrichum commune*. And then we all got interested. We

found one more [moss decorated cloak] in the National Museum in Wellington. Once again it was the same group, but a different moss - it was this *polytrichadelphis* species.

The cloak, on the one hand, represents Māori women's work. While men and women wore cloaks alike, traditionally women made them having learned the skill when they were quite young (Papkura, 1986:142). The return of the decorative material of a woven Māori cloak made by a Māori woman to Aotearoa New Zealand to identify, and for our moss expert to be a Māori woman 'in a white coat' is described as being "a miracle" by Maryanne. Such an extraordinary coincidence could also be described as 'uncanny'. The 'uncanny' is a term given to an event that is simultaneously familiar yet strange (Molloy, 1999). The uncanny can be seen as being fearful in part because "it evokes a lack of boundaries, a doubling, dividing, and interchanging of past and present, imagination and reality, self and other" (Molloy, 1999:156). The positioning of Maryanne in relation to the cloak disrupts the image of what it is to be a Māori woman and to do Māori women's work. Such a position can be seen as an undermining of colonial authority as Māori women's work is being repeated differently in two ways. First, as the scientific 'expert' in being able to identify the material used to decorate the cloak of Māori women's work from possibly two centuries before. And secondly, it produces a space for the eruption of subjugated knowledge into dominant knowledge. For example, the material had to come to a 'local expert' to be identified as a native moss.

Maryanne represents and occupies an unnamed hybridity. What do we call her? Bhabha (1994:112) suggests this is the place where "colonial discourse has reached that point when, faced with the hybridity of its objects, the presence of power is revealed as something other than what its rules of recognition assert". Being hybrid is not just about blood relations and kinship but also is a reversal of the process of domination. Maryanne can return the 'gaze' of the colonial 'scientists'. But this is not a simple reversing of the 'gaze' – a substitution. This is where there has been a displacement from the original and a disorientation of who is the scientist and who is the Māori woman. The cloak and the scientist are both Māori women. The Māori woman returns in the white coat and not as working on a brown cloak. At the same time, Maryanne disrupts who are scientists and the work that scientists carry out. She is not the 'scientist' who 'gazed' at the cloak originally and nor is she the Māori woman who made the cloak, yet she embodies them both. In other words, in this case, Maryanne stands as the contradictory statement of subordinate power as the repetition

of the 'same' becomes its own displacement. Maryanne's interest in this 'sideline' problem was because of her identification as a scientist as well as her whakapapa, her body and her identity as a Māori woman. In this situation the cultural residue, namely her identity as a Māori woman, erupts into the rationalist order of being a scientist.

CHAPTER EIGHT

Forging the (missing) links:

Conclusion

In the last decades of the nineteenth century physical anthropologists searched for the existence of the 'missing link' between ape and human, predicted by German evolutionist Ernst Haeckel in 1868 (Haeckel, c1910). Haeckel predicted the 'hybrid' would be physically the same, have less intelligence (from a smaller brain) and lack the human characteristic of speech. He named this hybrid *Pithecanthropus alalus* - "speechless primitive man" (Haeckel, 1910:543). In 1890 Eugene Dubois, physician, anatomist and former student of Haeckel's, found fossil fragments in Sumatra which were claimed as being evidence of the existence of "the missing link". 'He', for the 'missing link' could not be anything else, was named *Anthropopithecus erectus* (commonly known as Java Man) – "an erect-walking man-ape" - which Dubois believed was an extinct species of chimpanzee (Brace & Montagu, 1977:201). Haeckel (1910:545) described the find:

> As the Pithecanthropus walked erect, and his brain (judging from the capacity of his skull) was midway between the lowest men and the anthropoid Apes, we must assume that the next great step in the advance from the Pithecanthropus to man was the further development of human speech and reason.

According to Haeckel (1910) the lowest man was considered to be the Australian 'Negro' [Aborigine]. Hence, the link between language (speech), reason and progress in Haeckel's statement was just another inevitable articulation of the 'family tree of man'. After much debate, controversy and further examination, Dubois suggested that the skullcap he found leaned more towards being human than ape and renamed the 'missing link' as *Pithecanthropus erectus* or "the erect-walking ape-man" as opposed to 'man-ape'. The focus here was whether Java man was human or not – closer to 'man' or closer to 'ape'? By the 1950s the discipline of physical anthropology had accepted Java man into the genus *Homo* renaming him *Homo erectus*, with some suggesting there is no difference between 'him' and *Homo sapiens* (man). Since the 'discovery' of this first 'missing link', a number of others have been found including Taung child and Lucy (both of the

genus *Australopithecus* or southern ape). An entire new genus has now been created to cater for what is now believed to be "missing links". This is a brief narrative of "the missing link" – where palaeontology meets biology meets anthropology.

Parallels can be drawn between this narrative and the 'missing links' I will establish in this chapter between the two sections of the thesis. In the first instance, the narrative above focuses on 'trace' - a search for origins that connects past with the present (Spivak, 1988). In particular it traces the paleoanthropological body which, according to Donna Haraway:

> .... is a written body; paleoanthropology is an inscription practice, evident in the profusion of metrical devices for tracing meanings. The tools for producing the body as narrative and as text are themselves complex and multiple, requiring dense description and critical interrogation (Haraway, 1989:188).

However, like the connections I need to make in this chapter, the written body is attached to corporeality – the bones and artefacts that are 'found'. In other words, the narrative is built through and around a physical entity. In the same manner, the linking of the two sections of my thesis needs to employ a similar "rehabilitative narrative technology" (Haraway, 1989:187) for producing an account of Māori women scientists' subjectivities. Central to my argument that discourses of 'race' and gender in Enlightenment science continuing to inform the subjectivities of Māori woman scientists today is the forging of 'missing links' between the imperial archives, described in Part One, and the personal narratives of the Māori women scientists, interviewed and described in Part Two. This chapter will review the extent my thesis has argued that discourses of 'race' and gender in Enlightenment science continue to contribute to the constitution of the subjectivity of 'Māori woman scientist' and critically assess the theoretical tools used.

Weaving the 'missing links'

This first section of the thesis has shown that 'Māori woman' is situated in a network of writing – a mass of documents that captures and fixes the marked body as a sign of negative difference in colonial and postcolonial discourse (Bhabha, 1994). The importance of establishing Māori women historically as 'Other' for the Māori women scientists today is twofold. Firstly, the images and representations in the imperial archives have left behind a legacy of what it is to know Māori women - for both the dominant culture and Māori women to 'know' Māori woman

as 'Other'. This 'régime of truth' (Foucault, 1980) is found in both the imperial archives and the women's narratives about how others see them and how they see themselves. Secondly, the introduction of a 'fear of difference' into the discourse of science not only set the standards for the theory of 'race' but also provided the rationale for the exclusion of 'inferior peoples' as incapable of doing science (Schiebinger, 1989). I have argued in Part One that inherent in the Enlightenment sciences is the idea that Māori women were unable to 'do' science, or be the subject of science, because of her pathological nature. The sense of difference - what Māori woman is purported to be able to do and what the Māori women scientists do - impacts on Māori women because it shapes how individuals understand their own make up or essence. Māori women scientists have to deal with this 'difference' if they are to share the social status of the scientist – a social status that is 'open' to Māori women only in the later part of the twentieth century.

The 'body' forms the basis of a doubling that is present throughout the thesis. First there is the 'written body' – the subject position or discursive positioning of Māori women scientists – and secondly, the corporeal or physical body. This 'doubled' body, written and corporeal, cannot be treated separately as they continually refer to each other. As Judith Butler explains:

> ... there is an 'outside' to what is constructed by discourse, but this is not an absolute 'outside,' an ontological thereness that exceeds or counters the boundaries of discourse; as a constitutive 'outside,' it is that which can only be thought in relation to that discourse, at and as its most tenuous borders (Butler, 1993:8).

Like the narrative of "the missing link", the socially constructed body of the 'Māori woman scientist' has 'markings' – both corporeal and linguistic. The markings come to be identified with a presence of the past – a past that Homi Bhabha (1994:156) suggests has ' "ghostly repetitions of other stories". As such, this doubled body has an ability to transcend time through a web of discourse. These connecting discourses are complex and can be largely identified as 'blood', with related discourses of 'race', 'sex' and 'skin/colour', and those of racial and cultural 'dominance' or 'degeneracy'.

One of the strongest discourses that link Māori women as 'objects' and 'subjects' is that of 'blood' which was seen as contributing to 'race', which was also determined by skin colour. The Enlightenment scientific discourse of 'race' was constructed on the relationship between visual markers of difference, such as skin colour, and invisible properties, such as intelligence. As such, the science disciplines subjected Māori bodies to various forms of scrutiny and measurement

as to their 'bodily' differences in the pursuit of 'science of order' (Foucault, 1970). For example, the increase in the proportion of 'European blood', through interracial marriage and reproduction, came to be seen as a means to ease Māori away from their 'natural' evil inclinations and to make them more desirable to European males. These 'hybrid' women came to be seen as more 'European-like' in every way. Similarly, many of the Māori women scientists described themselves in relation to the amount of 'Māori blood' they had in them and connected it to 'skin colour' and their authenticity as Māori. Mere's narrative regarding her name (pp. 134-138) was also told in relation 'bloodlines'. While having been 'named' in order to reflect her Māori ancestry, Mere was also told by her mother that she was not to call herself Māori because "the blood's run out with you". The implication is, like with Maryanne (p. 121), that a certain amount of 'Māori blood' is required to claim the label 'Māori woman'. The production of the sign 'Māori woman scientist' has depended heavily on an organising metaphor of 'blood' both as a means to claim authenticity and to discipline the body – sometimes simultaneously.

However, Mere's narrative also reminds us that it works in reverse when she was asked if she had a "touch of the tarbrush" (p. 136). That is, any amount of 'Māori blood' was a 'polluting' of white blood and automatically attached itself to ideas of degeneracy as she was reminded of the natural 'unreliability' and propensity to 'drunkeness' in Māori shearers. This 'tainting' of blood connects with the Enlightenment science's discourse on Māori women being noa or profane because of menstrual blood being the 'pollution' of tapu (p. 104-105). As Māori women (noa) came to seen by the ethnographers as less than Māori men (tapu), so does 'Māori blood' contaminate or infect 'European blood'. In contrast, the 'white' or Pākehā make up of these women is not referred to as 'blood'. In other words, to have no blood is to be 'white', pale, unmarked and, hence, to 'pass' unnoticed – to be 'no body'. Katerina's "I'm brown and I can't hide it" (p. 150) stands in stark contrast to pale Jane's "I'm lucky, nobody knows [I'm Māori]" (p. 169). There is a contradiction that turns on the same discursive positioning of Māori women through, but not entirely, amounts of 'blood' – Māori woman speaking as 'Māori woman'. Anxieties regarding the mixing of other bodily fluids has been projected onto blood making it "a very expansible and inclusive fluid" (Haraway, 1997:232).

The colonial discourse that connects racial typology, culture and intelligence is strongly evident in the archives and the women's narratives. The discourse of degeneracy is overt in the Enlightenment science's categorisation of Māori, troped

through 'infantilism' (backward) and 'animalism' (natural), it is part of a larger more diffuse mechanism of impossibility and naturalisation in the women's narratives where the cultural is reduced to the biological. For example, in Part One I argued intellect was denoted by not only by physical stigmata such as head shape but also social and psychological indicators, such as 'pouting' (p. 58). Pouting was seen as an indicator of the embodiment of an 'earlier stage' of development - being immature and under-developed - an evolutionary inferior trait associated with Māori women. Hence, inherent in being a Māori woman is a notion of an "everlasting infancy" (Shohat & Stam, 1994:139) of 'race' and 'sex', part of the missing link between white men and apes.

This discourse of degeneracy and progress in Māori women connects with a number of references in the women's narratives. For example, Marie's (p. 161) experience of attending conferences and authoring - her inability to be taken as a 'scientist' by her colleagues suggests that others think she Marie is 'not able' to be a scientist - they ask to speak to the student with the Pākehā name or even the 'male'. Marie is designated to a position of being dependent on the scientific leadership of Pākehā (males). Mere's (p. 137) school friends who call her Hori - their pet (animal) name that is also a male Māori name for George. 'Māori' being naturally associated with sport is in Caroline's (p. 146) recalling of what she had to do to get other Māori to consider her as one of them. Maia's narratives of being classified as an 'honorary white' (p.165) and Māori being associated with 'gangs' (p. 158) suggests an association of Māori as being 'less than' what it is to be white or Pākehā. Furthermore, in each case the women have held this identification of Māori woman separate from knowing themselves as 'bright' and 'scientist'. Implied in all these examples is that not only that Māori women are projected as 'bodies' rather than mind, but also that the body - in its wild and unruly form - needs putting in its place. Being 'not able', 'less than', 'honorary', someone's pet, and 'naturally Māori' are all connected to processes of subjugation that are made possible and plausible through a stereotypical discourse of racial typology. There is always a relational advantage to being white and male, and Māori women are seen as being constitutively deficient.

The physiological classification of racial difference was also transferred to that of historical linguistics where a 'science' of linguistics allowed a system of classification and differentiation that was predominantly cultural (Young, 1995b). For the colonizer, like for Haeckel in the 'missing link' story, to be fully human was to speak the English language and to abandon native languages. The schoolhouse on the mission station became the 'space' for colonising the mind as

well as the body. The women's narratives suggest the 'schoolhouse' or institution still is the site of suppression of te reo Māori especially for 'bright' girls. For example, Katerina's (p. 150) dilemma between taking te reo Māori and being a 'good student' because te reo Māori required her to participate in the cultural protocols of attending various local hui (meetings) or tangihanga (funerals) which took her away from her other studies. This presents similarities with the discourse on Māori women in the nineteenth century on what it was to be 'a good farmer's wife and mother' (p. 74). Katerina ended up removing herself from 'Māori' in order to achieve 'good student' status. Jane (p. 149) recalls being placed in the 'top stream' at school but that meant she was unable to take te reo Māori despite having modern European languages offered as subject choices. These narratives are about telling bright students that Māori is not needed or required for their future roles, something other women researchers have identified in relation to 'bright' Māori girls schooling (Middleton, 1985; Te Awekotutku, 1991). The English language carries the sign of English authority. In the abject world of Māori, being bright comes from 'across the borders' – Māori and 'bright' did not 'sit well' together. It is something most Māori students were not considered to be and separated these women from other Māori students.

I have argued that the Māori women scientists having found themselves constituted as 'bodies' or objects of science cannot be scientists (minds) or subjects of science at the same time. Hence, central to the Māori women scientist's sense of self in their narratives appears to be a desire for invisibility. The 'flight' from her body is not always dependent on whether the body is 'seen' as 'brown' but the identity of being a Māori woman. For example, Katerina (p. 170) has dark skin and hair but she disembodies in her 'mind's eye' - "I didn't feel anything different". Other Māori women scientists pass for 'white', which is relatively easy with 'pale' bodies and/or Pākehā names. For example, Maryanne (p. 121) is "one-sixteenth Māori" and she spoke of when she told people I was coming to interview her "they were surprised". For some of the women the 'flight' was from the collective 'Māori body' by sending children away to boarding school or through 'streaming'. For example, Diane (p. 140) recalled suggests she was "fortunate enough to get into the top stream … because you never got Māori in those classes". Mere, in her own re-naming to Meré (p. 138), can also be seen as 'fleeing' from the collective and individual Māori body. The Māori name Mere was placed in the abject domain in order for others to re-inscribe her body. The re-naming of the body by the self is the ultimate form of 'othering' - a successful attempt to make the 'native' the 'Other' in their own land. All these women can

be seen as 'fleeing' the enclosure of the symbolic 'brown' body in a desire to transform 'difference' into a positive sign, that of whiteness or 'not Māori'.

The desire to transform one's visibility comes with ambivalence. These women almost apologise for being 'inauthentically' Māori as there is some pressure today to no longer 'pass'. For those who embody 'whiteness' it is a problem. For example, Arihia (p. 174) being told by a kaumatua, or Māori elder, the story about the kiore is "not for you Pākehā" leaves her with a sense that her identity is out of her control. However, the same dilemma did not strictly apply to 'gender' but it was raised when Marie (p. 162) questions her status as a 'scientist' in that she asks "I can never tell whether people look at me and see me as Māori or as a woman scientist". However, at university Caroline (p. 142) suggests that there was a difference between the 'white coats' of Science and 'brown bodies' of Māori Studies suggesting that the 'white coats' of science portray 'whiteness' for some Māori despite the colour of the body underneath. Donna (p. 145) suggests the white coat makes science a "Pākehā subject" and questions that it may leave a mark on her brown body. The alteration of appearance becomes a touchstone for difference. The desire to emerge as authentically 'Māori woman' and 'scientist' through mimicry - the process of repetition - "is the final irony of partial representation" (Bhabha, 1994:88). The Māori women scientists' 'whiteness' - achieved as a result of their bodies or coats - can be seen as determining orientation while those about them label their conflicted sense of identity as pathological.

I have argued that the notion of embodiment central to this thesis. The production of Māori women as Other in the Enlightenment science's discourses involved the division between European (man) as mind and Māori and women as the body. As Radhika Mohanram has argued with regard to the Black body:

> To the body is connoted such qualities as passion, biology, the inside, otherness, inertness, unchanging, statis, matter - a more primitive way of being. To the mind is attributed reason, the self, the same, action, movement and intelligence, a more developed way of being or *not* being. [...] The black body is metonymically linked to the women's body in the power/knowledge system of Western Enlightenment, progress and modernity (Mohanram, 1999:199, original emphasis).

The body contains within it the markers of 'race' and 'woman' as I have argued. However, bodies have a way of being seen again and again throughout historical time - a 'genealogical' or whakapapa body - and with the case of 'racial' markers it signifies 'origins'. These bodily 'markers' of being Māori and woman were objectified in Enlightenment science as sites/sights of difference and through their

biological repetition persist in the subject today. In order to attain the 'mind' status of the scientist Māori women need to flee their bodies, to flee themselves. However, the 'body' not only grants the subject a sense of personal identity, it also grants them a sense of belonging to a normative group. The Māori women are caught within the sign of double articulation - the eye/I - that manifests itself as an ambivalent desire to be 'brown' and 'white' through their mixed and split 'origins' and identifications.

Falling prey to deconstruction

As the final gesture in this chapter I want to assess the theoretical tools I have used to present the argument that the subjectivity of 'Māori woman scientist' continues to be constituted from a discursive historical past. Deconstruction operates from within, in order to disrupt the internal operations of 'text'. Derrida (1976:24) writes:

> Operating necessarily from the inside, borrowing all the strategic and economic resources of subversion from the old structure, borrowing them structurally, that is to say without being able to isolate their elements and atoms, the enterprise of deconstruction always in a certain way falls prey to its own work.

Working from within can be seen as operating from inside the object group – an insider or at least partially so. In fact, deconstruction requires it. Of relevance to this discussion is my own identification with the Māori women scientists. This speaks of a form of complicity between the subject and object of investigation and is, in part, also a genealogy of the writer. With both researcher and researched occupying the subject/object positions Spivak (1985:131) argues the complicity represents "what is marked is the site of a desire". The question of the 'desire of the researcher' should be evident in the work through descriptions of her place, history and special interests so she is recognisable amongst the 'objects'. Furthermore, Spivak (1988) suggests the use of psychoanalytical ideas help to confront any consequences of complicity between researchers and researched so that researchers do not come to speak for the object of their study. But the question still remains 'How might the researcher 'mark the site of desire' to show one's complicity with the object? Have I, as the researcher, 'exposed' and analysed my place to convey my positioning without it completely being my story? And how does one know if and when one has achieved this place?

One answer lay in Trinh Minh-ha (1989:36) having pointed out that as a woman it is not possible to do anything else for "we do not *have* bodies, we *are* our bodies,

and we are ourselves while being the world". In other words, it is not possible to do anything else but to include ourselves – our bodies – in the writing of the research. If this is so, then the position of the 'objective' researcher for women writing 'Woman' is impossible. For Trinh Minh-ha (1989) writing 'Woman' is to encourage contact with 'women'. She writes:

> Woman (with a capital W) may therefore kill women if She loses contact and speaks of Herself only according to what She wants to hear about Herself. A distinction needs to be made between "Write yourself. Write your body" and write about yourself, your body, your inner life, your fears, inhibitions, desires, and pleasures. The first refers to a scriptive act – the emergence of a writing-self – the second, to a consolidation of writing from the self (Trinh Minh-ha, 1989:28).

The narratives of the Māori women scientists, and my own narrative linked in, are a way in which Trinh Minh-ha's two acts overlap – narrative and life. For example, in Maryanne's narrative of her tupuna (Chapter 5) is both 'Māori woman' and 'Māori women'. At the same time, narratives and life are part of a chain or whakapapa that are ongoing as each person's narrative waits for someone else to link in or pick it up. Separation between subject and object is neither possible nor desirable. It is in this way where past, present and future are linked, that narratives such as those of the Māori women scientists can be made. The complicity of deconstruction that Spivak refers to ensures that the narrative is never 'finished' and another one waits to be told. In other words, there is no end point, no ready-made solution – deconstruction always ensures an opening onto something else. In the same way, the recognition that a 'place' is attained is in the ability for someone else to continue both the 'scriptive' and 'self' narrative.

I have attempted to ground this work in 'bodily' experiences, not as an attempt at a backward displacement in order to 'recapture' biological essentialism as a form of identity, but to explore what constitutes a 'marked body', who has marked bodies, and the role of marking in constituting subjectivities and identifications. As Judith Butler (1993) has argued bodies do matter. However, the importance here is that the marked body is not only a sign of cultural difference and its mode of repetition, but is also 'read' as the connecting continuum over historical time. On one level I have argued that Māori women scientists are left with divides between race, gender and scientist. In order for the Māori women scientists to 'speak' (and write) through their entire bodies they have had to gather the fragments of a 'divided' body. However, it is important to separate fragmentation with the purpose to 'decentralize' the subject as opposed to 'conquering' the subject. Fragmenting to decentralize does not require an erasure but a constant displacement of the binaries evident in Western thought. For example,

Maryanne's narrative of the Māori cloak from the museum in Florence is not a simple reversal of places where the Māori woman replaces the scientist. This narrative is a counter-stance in which the dominance/subjection patterns of binaries and their reversals are displaced further because a simple replacement is "neither simply renounced nor accepted as an end in itself" (Trinh Minh-ha, 1989:40).

Complicity in deconstruction can also refer to operating within the text of the academy and/or language of the 'colonizer'. Proponents of the theories used here have not been without their critics. For example, some feminists have criticised postcolonial discourse theory for not taking into account women's experiences, being too textually based and too ideal, and that this has occurred at the expense of materialist historical enquiry (Mohanty, 1984; Parry, 1987; Miller, 1990). There has been uneasiness among some Māori women academics (see for example, Pihama, 1993; Smith & Taki, 1993; Te Awekotuku, 1992), and among other women of colour (see for example, Lorde, 1984; Christian, 1987; Collins, 1990), about the 'contamination' of theory by the specific historical origins that produce it suggesting a privileging of 'First World' or Western elite theory. Audre Lorde (2001:91) writes:

> The master's tools will never dismantle the master's house. They may allow us to temporarily beat him at his own game, but they will never be able to us to bring about genuine change.

However, I argue that the use of poststructuralist, postcolonial and feminist theories developed in other contexts, while deeply implicated in colonialism, are not reducible to colonialism. Furthermore, as Trinh Minh-ha (1989:44) has argued, "writing woman cannot address the question of difference and change without reflecting and working on language". The question of difference and change cannot be left solely to political reflection.

The language of theoretical critique, such as poststructuralist, postcolonial and feminist work, is seen as an elite language that is a measure of how far the 'theorist' or researcher has moved from the 'people' by those groups who consider themselves marginalized (see for example, Pihama, 1993; Davies, 1994). However, Bhabha (1994) has argued this criticism leads to further binary 'traps' of theory versus politics. I suggest it is dishonest for academics – such as Māori women, women of colour, feminists - not to think of ourselves as part of the First World or West, and that we are heavily influenced by it all. Aotearoa New Zealand (and all of its inhabitants) is considered as a 'western' country whose benefits we enjoy, and with its own colonial history. Whilst there are difficulties

in the politics marginalized groups face as academics, women, women of colour and so forth, one also needs to take into account our own complicity that is deeply implicated in these positions. There is no theory, Western or indigenous, that has not been influenced by history and nor can one ignore the last two centuries of historical involvement of the West on Māori life and thought. Instead, we should consider the language of theoretical critique to be "spaces of translation" (Bhabha, 1995:25). What is produced, Bhabha claims, is a new political object, neither the one nor the other but something else besides - a place of 'hybridity' through the negotiation of contradictory and antagonistic instances. It is important to interact with the ideas of all these theoretical positions and to acknowledge them as radical influences that have emerged from 'mainstream academies'.

Conclusion/Opening

A recent article in the *Hawkes Bay Today* (24 August, 2001) focuses on five Ngati Kahungunu women who "are doing their bit to change the image of scientists as white-coat-clad laboratory dwellers" (McCauley, 2001) by throwing away their white coats. The picture accompanying the article shows the women on a 'rocky shore' landscape with the sea behind them and dressed in shorts, jerseys and coats. The Māori women are qualified in marine biology and are interested in a 'Māori perspective' in science achieved through Māori input. The article reports on a meeting the National Institute of Water and Atmospheric Research (NIWA) - a CRI - to discuss a proposed memorandum of understanding with Ngati Kahungunu. Part of the strategy discussed between the groups is to promote science as "a worthy career for Māori and women". Dr Perry, the Pākehā male CRI scientist, is quoted as saying NIWA "had made a real effort to employ Māori and women. It had a Māori employees' network, although with only seven Māori out of hundreds of employees nationwide it was still on a small scale" (McCauley, 2001). The Māori women scientists were said to be meeting girls at local Māori girls' boarding school to get them to consider science as a career and to inform them that finance was available for Māori students through various scholarships.

This thesis argues there is an incoherence in 'Māori', woman' and 'scientist', produced through the production, exclusion and repudiation of the abject, which will continue to threaten their subjectivity in their science endeavours. The subject 'Māori woman scientist' or, in this case, Ngāti Kahungunu women scientists, is 'unattainable' and excluded in the article in favour of 'Māori' and 'women' (and 'scientist'). However, my point here is that the discarding of the 'white coat' may

be the beginning of the undermining of colonial authority in science but will never be enough in itself. The white coat, as this thesis has argued, has its purpose in dirt and disorder – both physical and symbolic. It is the latter I am concerned with here for I have argued that the white coat is not an arbitrary choice. While the white coat is to camouflage the body that is 'dirty' – black or brown – it is also there to mimic the white body of the scientist. The undifferentiated whole white body does not disappear with the removal of the white coat and, as such, colonial authority is still recognisable. However, the removal of the white coat serves to highlight the Other "*as a subject of difference that is almost the same, but not quite*" (Bhabha, 1994:86, original emphasis). And therein lies the danger. Like the notion of 'passing', being a Māori woman scientist depends not on excess but on equivalency. In other words, taking off the white coat reveals the brown body (difference) and they can never have the same imitative license. In her narrative Maryanne returns a "counter-gaze that turns the discriminatory look, which denies her cultural and sexual difference, back on itself" (Bhabha, 1994:47). In looking at the brown cloak but still wearing the white coat, Maryanne seems to have found a means of undermining the practice, and hence the authority, of colonial science.

APPENDICES

APPENDIX A
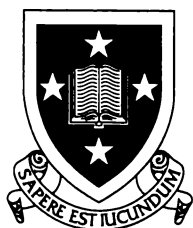
The University of Waikato
Te Whare Wānanga o Waikato

Centre for Science, Mathematics and Technology Education Research
Te Kauhanganui o te Pangarau, te Pūtaiao me te Hangarau Rangahau Mātauranga

Private Bag 3105, Hamilton, New Zealand
Telephone (07) 856 2889, Centre direct line (07) 838 4035, Centre Fax (07) 838 4272

PhD Thesis on Māori Women in Science

Who am I?

My name is Elizabeth McKinley (Ngāti Kahungunu ki Wairarapa/Ngāi Tahu) and I am a staff member with the Centre for Science, Mathematics and Technology Education Research (CSMTER) at the University of Waikato currently enrolled for a Doctor of Philosophy. I am a Māori woman who did a BSc in Chemistry 18 years ago. Since then I have trained as a teacher and spent 12 years teaching science and chemistry in secondary schools, 4 years in preservice teacher education and 18 months at CSMTER. There were few Māori women in science areas at the time I did my degree and it appears to me that things have not changed too much in the intervening years.

What is the thesis about?

My research project broadly concerns the involvement of Māori women in science. Statistics indicate that science is a field where there are few qualified Māori people. I am interested in hearing the stories of the few Māori women who have chosen to enter the science field. In the current climate, I have some concerns about the role and contribution of Māori women (as seen by the state and other organisations) as Māori groups generally increase their involvement in science. I would like to speak to Māori women who are currently working in science as scientific researchers. (Without getting into precise definitions at this point in time, I have decided against interviewing Māori women in the medical field until I have explored other science areas.) I am also interested to speak with women who have science qualifications but have deliberately opted out of working in the science field.

What would being involved require?

I hope to interview you to ask you about your personal experiences at school and at home, your training and tertiary education, your decision (or not) to work in the field of science, and your experiences in the job. An interview would be informal, semi-structured and last from 1-2hrs. I would be interested in doing group interviews of two or more if it is appropriate and convenient to the participants involved. All data collected through the interview will be yours, and all transcripts of conversations will be returned to you for checking and removal of information should you wish. Nothing will be used without your permission.

Interested?

If you would like to take part, or you want more information, I would like to hear from you. Confidentiality is assured and getting in touch with me does not commit you to the project. If you are not interested in being interviewed but have some opinions on particular issues, I would still be interested in speaking with you. If you are aware of other women whom I may not have reached who may be

interested, I would like to hear from them as well and have enclosed a spare card to pass on so they may get in touch.

Elizabeth McKinley   Ph   (07)   838 4534 (direct line to my office)
CSMTER,   Fax   (07)   838 4272
University of Waikato, email mckinley@waikato.ac.nz
Private Bag 3105,
Hamilton.

APPENDIX B

20 May 1996

Dear

Thank you for agreeing to be interviewed for my research on Māori women in science. I appreciate the time and effort you have all made to contact me. The purpose of this letter is to explain my research in more detail to each of you and to ask for informed consent. I have taken the opportunity to discuss some of the issues, and highlight possible others, that may arise as this research progresses to the pages of my thesis.

The "interview"

I have to confess as to now having some ambivalence about the use of the word "interview". The word interview can carry some negative connotations by implying a formal situation where the researcher asks formal questions and the interviewee answers and is not allowed to ask questions back. This is not what I had in mind at all! I had in mind an informal situation (and possibly a group situation with some participants) with no formal list of questions, just starter suggestions indicating the areas that would be of interest. After some thought, I would like to point out that discussion or conversation would be more appropriate descriptions of what I had in mind. I would particularly like to encourage the asking of questions back. This helps to enable you, as a participant, to set part of the agenda of this research. I am also interested in the exchanging of ideas on and around this topic.

More about the research

The main aim of my research is to investigate the relationship(s) between Māori women, science and colonisation in the context of increasing Māori involvement in science development. I am particularly keen to investigate two aspects :

1   how science is implicated in producing and managing Māori women (most of this will be done through textual analysis and will have a historical component); and
2   how Māori women constitute themselves as and when they become part of the scientific discourse (through these discussions).

I see my discussions with you mainly contributing to the second aspect, although I know the second is inextricably entwined with the first in many respects, and I would welcome comment and be willing to discuss any ideas you may have on the first as well.

As you probably gathered by now this research could be called "social research". I am sure you are aware there is a definite lack of pre-existing material on Māori women and science. In this sense, the research is a pioneering study rather than

201

contributing to an existing body of knowledge, and my aim is to develop theory rather than to test existing theory. So what does this mean?

Firstly, the body of the text probably won't have as many quotes as you may expect. In most cases, the quotes will be supporting interpretations in the thesis. That is not to say you will not be in the text at all (obviously not identifiably). As participants in the research you will give direction(s) to the research and interpretation.

The second concerns the inclusion and interpretations you may find in the finished text. In social research I do not believe any researcher can act as a "fly on the wall" - the impartial, objective observer or interviewer. I come to you with my own experiences and interpretations of the field and it is inevitable that there will be a degree of selection (or filtering) - both consciously and unconsciously - over what I will notice, record, analyse and write about. However, I anticipate that my overall analysis will be acceptable to you all.

Informed consent

In accordance with the ethical guidelines of the university, I need to make you aware of the following:

1   I need a signed consent form (which is attached to this letter) to proceed with the research. If you could sign this and I will pick it up when I visit you;
2   all interview material gathered will be confidential to my supervisors and I;
3   you may withdraw from the research at any time;
4   you have ownership on any raw data gathered from you;
5.   transcripts of interview material will be returned to you for checking and editing; and
6.   anonymous extracts will be used in my thesis and associated publications such as conference papers, articles, chapters in books and illustrative material in lectures.

Some questions to think about

I have a few questions that I would like you to think about before I get to interview you. The interview will be based around these questions. Please feel free to jot down ideas and/or comments to remind yourself to mention them to me when I come to see you. (This is not a memory test!) You may also like to jot down questions you may want to ask me - either about the research process or about the topic itself. There are two different lots of questions for different people.

1   *For Māori women who have deliberately not chosen to pursue science as a career.*

        (i) Why and how did you decide to take up science in the first place?
        (ii) Why did you decide not to continue or go into science after being given the choice?
        (iii) What do you think are some of the issues Māori women need to think about when entering the science field?

2   *Māori women scientists and postgraduate students*

        (i) Why and how did you decide to do science at university?

(ii) Does being a Māori woman impact on your work (or postgraduate science study)?

If so, in what way(s) does it impact?

If not, why do you think it does not .

(iii) What do you think are some of the issues Māori women need to think about when entering the science field?

I am including a consent form for you to sign. I have also enclosed a one page information sheet that I would also like you to fill in to save some time at the interview and to help provide a possible structure(s) for me to work with in the thesis.

I thank you very much for giving consideration to this project. I realise that interviews can be time consuming, however, I wish to put Māori women scientists' ideas and experiences on record. In this, I hope that I can contribute to the enhancement of Māori women's experiences in science and science education.

Ka kite ano,
Yours sincerely

Elizabeth McKinley

phone (07) 838 4534 (work)
       (07) 855 0033 (home)
fax   (07) 838 4272
email mckinley@waikato.ac.nz

APPENDIX C

Information Sheet

This information will be confidential to my supervisors and I.

1   Full name

2   Address

3   Contact numbers
            phone
            fax
            email

4   Date of Birth

5   Number of parents with Maori ancestry
            If one, which?

6   Iwi affiliation(s)

7   Iwi connections (e.g. are you on any marae committees; do you work in any capacity for any iwi)

8   How would you describe your ability to speak Maori?

9   Education (from primary to tertiary)

Years

Name of School/university

Town

Qualifications

10   Career structure (include time out for having children)

Years of service

Name of institution

Position held

P/T or F/T

APPENDIX D

Consent Form

I consent to being interviewed by Elizabeth McKinley.

I understand that the tape recorded interview will be transcribed into print and that I will receive a copy of this typed transcript to edit and change if I wish.

I consent to the use of anonymous extracts from the transcripts being used in a thesis to be written by Elizabeth McKinley.

I consent to brief anonymous extracts also being used in associated publications such as conference papers, articles, chapters in books and also as illustrative materials in lectures.

I understand that I am free to withdraw from this project at any time.

Signed :

Date :

Print Name :

Address :

Contacts :   phone (work) :
                phone (home) :
                fax :
                email :

APPENDIX E

Centre for Science, Mathematics and Technology Education Research
Te Kauhanganui o te Pangarau, te Pūtaiao me te Hangarau Rangahau Mātauranga

Private Bag 3105, Hamilton, New Zealand
Telephone (07) 856 2889, Centre direct line (07) 838 4035, Centre Fax (07) 838 4272

12 March, 1996

Dear [Name of CEO]

My name is Elizabeth McKinley and I am a postgraduate student currently enrolled for a Doctor of Philosophy with the Centre for Science, Mathematics and Technology Education Research at the University of Waikato. This letter is to ask for your help with regards to my research project.

My research project concerns the involvement of Māori women in science. In light of recent Treaty of Waitangi settlements and claims, and for various other reasons, the need to increase Māori participation in science has become more urgent. The Ministry of Research, Science and Technology has recognised this issue and has responded by conducting a parallel consultation process in their recent science priorities review. I have some concerns about the role of Māori women as Māori increase their involvement in science. In the course of my research I hope to interview Māori women scientists to ask them about their experiences at school and at home, their training and tertiary education, their decision to work in the field of science, and their experiences in the job.

Crown Research Institutes are the largest single employers of science researchers in New Zealand and I am writing to each one to ask for their statistics on Māori. The information you and your organisation provide will contribute to the description of the role of Māori and, in particular, Māori women in science research. I am interested in obtaining from you any statistics that you may have concerning Māori (both men and women) employed in your organisation, either on tenured or short term contract positions.

In accordance with the Privacy Act 1993, I am well aware that you cannot disclose names of the Māori women you employ. However, I would very much appreciate it if my project could be made known to the Māori women scientists you employ by either passing on the enclosed sheet I have prepared or advertising in your company newsletter or such.

I would very much appreciate it if you could spare me the time to answer the few questions on the enclosed questionnaire and make known my project to Māori women scientists you have working for you. My contact details are enclosed should you wish to contact me and discuss the questionnaire or the research further.

Yours faithfully,

Elizabeth McKinley BSc (Otago), MEd (Waikato), Dip Tchg
Ngāti Kahungunu/Ngāi Tahu

Elizabeth McKinley
CSMTER,
University of Waikato,
PB 3105,
Hamilton.

Phone   (07) 838 4534
Fax   (07) 838 4272
Email   mckinley@waikato.ac.nz

APPENDIX F

MAORI WOMEN SCIENTISTS IN CROWN RESEARCH AGENCIES

QUESTIONNAIRE

Name of organisation

Name of contact person

Address

Contact   Phone

            Fax

            Email

The categories regarding employment structures in this questionnaire have been chosen according to advice I have received. If they are not applicable for your situation and/or you find that they are impossible to fill out please let me know by telephoning or emailing me.

If you have any queries regarding this questionnaire, please do not hesitate to contact me.

Elizabeth McKinley   OR   Ph   (07) 838 4534
CSMTER,   Fax   (07) 838 4272
University of Waikato,   Email : mckinley@waikato.ac.nz
Private Bag 3105,
Hamilton.

ALL STAFF
Q1   How many staff do you employ in your organisation with respect to gender?

Categories of Staff	Females	Males
Senior Management (CEO's, human resource manager, corporate managers, senior accountant, division managers, etc but excluding staff in the following categories)		
Team Leaders (staff who are responsible for a number of research programmes)		
Programme Leaders (staff who lead a particular research project and/or programme)		
Scientists (science qualified staff who work on the research aspects of projects excluding any of the above)		
Technicians (non-scientists)		
Others eg. support staff, etc		
TOTAL		

MAORI STAFF
Q2   How many Māori staff do you employ in your organisation according to gender?

Categories of Staff	Females	Males
Senior Management (CEO's, human resource manager, corporate managers, senior accountant, division managers, etc but excluding staff in the following categories)		
Team Leaders (staff who are responsible for a number of research programmes)		
Programme Leaders (staff who lead a particular research project and/or programme)		
Scientists (science qualified staff who work on the research aspects of projects excluding any of the above)		
Technicians (non-scientists)		
Others eg. support staff, etc		
TOTAL		

Q3 Please categorise the Māori staff you employ into the following employment categories:

	TENURED		SHORT TERM CONTRACT (up to and including 6 months)	
MALE MĀORI STAFF	FULLTIME	PART TIME	FULL TIME	PART TIME
Senior Management				
Team Leaders				
Programme Leaders				
Scientists				
Technicians				
Others (eg. support)				

	TENURED		SHORT TERM CONTRACT (up to and including 6 months)	
FEMALE MĀORI STAFF	FULL TIME	PART TIME	FULL TIME	PART TIME
Senior Management				
Team Leaders				
Programme Leaders				
Scientists				
Technicians				
Other (eg.support)				

Q4   Please specify the nature of the position for any Māori staff in senior management.

Q5   How have things improved in your organisation with respect to employing Māori staff generally, and in particular Māori women, over the last 3-5 years?

Q6   Does your organisation have any policy statements and/or programmes with regards to employing or increasing the employment of Māori (men and/or women)?

Yes ☐

No ☐

If yes, in what way? (to save time you can attach the policy statement(s) and outlines of programmes if you so wish). Please list them with a very brief outline here.

AIMS AND GOALS RELATING TO MĀORI INVOLVEMENT

Q7   What aims/goals does your institute have with regards to Māori involvement in your projects and how are these being achieved? Please denote in some way any aims and/or goals that are specifically designed to increase Māori women's involvement
in science (this may be in the form of specific projects or through consultation).

GENERAL

Q8   Do you have any further comments to make with regards to this project. Please make them here.

THANK YOU FOR YOUR TIME.

APPENDIX G

TABLE 1

Percentage of women employed by each CRI according to job status

CRI	Manage-ment	Scientists	Technical	Support	Total
A•	0.3	12*	12*	16	28
B•	0.2	5	17	17	40
C‡	0.2	8	17.5	14	40
D‡	0.3	7	18	14	40
E‡	0	7	19	12	38
F‡	1	4	17	14	36
H•	0.3	5	9	10	24

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

* CRI A made no distinction between scientists and technical staff as requested, hence, the percentage of women scientists and technicians *together* is 12%.

TABLE 2

Percentage of men employed by each CRI according to job status

CRI	Manage-ment	Scientists	Technical	Support	Total
A•	2	61*	61*	9	72
B•	3	26	21.5	9.5	60
C‡	1	27	22	10	60
D‡	2	25	16.5	16	60
E‡	3	28	21	10	62
F‡	3	35	19	6	64
H•	3	40	26	7	76

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

* CRI A made no distinction between scientists and technical staff as requested, hence, the percentage of men scientists and technicians *together* is 61%.

TABLE 3

Percentage of Māori employed by CRIs according to job status

CRI	Manage-ment	Scientists	Technical	Support	Total
A•	-	0.3	0.0	0.6	0.9
B•	-	1.0	1.5	5.5	8.0
C‡	-	-	2.0	1.0	3.0
D‡	-	0.3	1.0	1.7	3.0
E‡	-	-	0.33	0.66	1.0
F‡	0.3	2.0	1.2	0.3	3.8
H•	0.2	0.3	1.0	1.0	2.5

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

TABLE 4

Percentage of Māori women employed by CRIs according to job status

CRI	Management	Scientists	Technical	Support	Total
A•	-	-	-	0.3	0.3
B•	-	0.2	0.8	3.8	4.8
C‡	-	-	0.7	0.4	1.1
D‡	-	-	0.3	1.0	1.3
E‡	-	-	-	0.3	0.3
F‡	-	0.25	0.25	-	0.5
H•	-	-	0.5	0.8	1.3

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

TABLE 5

Numbers of Māori by Gender employed by CRIs

CRI	Māori women	Total number of women	Māori men	Total number of men	Total number employed
A•	1	98	2	249	(3) 347*
B•	24	196	16	296	(40) 492
C‡	6	213	9	322	(15) 535
D‡	15	466	21	704	(36) 1170
E‡	1	120	2	195	(3) 315
F‡	2	141	13	247	(15) 388
H•	8	144	8	448	(16) 592
Totals	57	1378	71	2461	(128) 3839

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

* Number in brackets ( ) represent total number of Māori employed by company.

TABLE 6

Numbers of Māori Women by Job Status employed by each CRI

CRI	Senior Management	Scientists	Technical	Support	Total number of Māori employed
A•		(1)*		1 (2)	1 (3)§
B•		1 (6)	4 (7)	19 (27)	24 (40)
C‡			4 (10)	2 (5)	6 (15)
D‡		(3)	3 (13)	12 (20)	15 (36)
E‡			(1)	1 (2)	1 (3)
F‡	(1)	1 (8)	1 (5)	(1)	2 (15)
H•	(1)	(2)	3 (7)	5 (6)	8 (16)

‡ Figures for these CRIs are from 1996

• Figures for these CRIs are from 1998

 * Number in brackets ( ) represent total number of Māori employed by company in that position.

§ Number in brackets in this column ( ) represent total number of Māori employed by company.

GLOSSARY

ahi kā	occupation rights
Aotearoa	Māori name for New Zealand
atua	supernatural, menstrual blood
hākari	feast
hāngi	the contents of an earth oven
hapū	kin group/family, pregnant
Hineahuone	name of the first woman in Māori mythology
hui	meeting, gathering
Io Matangaro (Io)	God (Christ)
iwi	tribe
kaikaranga	caller of the karanga
kapa haka	haka teams
karakia	incantation, prayer
karanga	call
Karihi	personification of the female sex organ
Kauri	name of a native tree
Kei te pēhea koe?	How are you?
kiore	Polynesian rat
kōhanga reo	pre-school taught through the medium of Māori language
korekore	nothingness, absence
kōrero	talk, speak, discuss
korowai	woven cloak, especially ones that have feathers woven into the outside
mana	prestige
manuhiri	visitor(s)
marae	meeting ground
marae-ātea	ground in front of the meeting house
mauri	life spirit, life principle
Māori	indigenous peoples of New Zeland
Māoritanga	Māori culture

moko	tattoo
muka	flax fibre
Ngāti Kahungunu	name of a North Island tribe
Ngāti Porou	name of a North Island tribe
noa	free from tapu
pā	fortified village
Pākehā	given to the descendants of the British name colonizers
papa kāinga	original home
Papatūānuku (Papa)	name of Earth (female)
patu	weapon, club
poi	a ball attached to string that is twirled in dances
pou	carving of an ancestor(s)
pōwhiri	a welcoming ceremony
puhi	girl of noble family kept for the right match, virgin
rangatira	chief
Ranginui (Rangi)	name of sky father
ruahine	old woman, post-menopausal woman
taha Māori	Māori side
tāhuhu	ridge pole of the meeting house
Tainui	name of North Island tribe
Tanemahuta (Tane)	son of Papa and Rangi, God of the forests
tangihanga	mourning, funeral
tāniko	embroidered border
taonga	treasure
tapu	sacred, forbidden
teina	younger brother of boy, younger sister of girl
te Pō	the night
Te Rauparaha	name of a Māori leader
te reo Māori	Māori language
tīkanga	culture

tīkanga Māori	Māori culture
Tiki	personification of the male sex organ
tōhunga	expert, priest, specialist
toko pou manawa	central post or mainstay in meeting house
Tōtara	name of a native tree
tuakana	older brother of boy, older sister of girl
tūpuna	ancestors (pl)
tūrangawaewae	home, a place to stand
uha	female
urupā	burial ground
waiata	song
waka	canoe
Wairarapa	name of lake in an area of the same name
whakanoa	to free from tapu
whakapapa	genealogy, ancestry
whakatapu	to make sacred
whaikōrero	speech
whakataukī	proverbs
whānau	extended family, to be born
Whānau-a-Apanui	name of North Island tribe
whanaungatanga	(familial) relationship
wharenui	meeting house
whare tangata	womb
whare tupuna	ancestral house
whenua	land, umbilical cord

Translation of Mihi/Greeting

(The introduction identifies a dual Māori ancestry from two tribal areas.)

Aorangi is the name of the mountain

Wairarapa is the name of the lake

Ngāti Hinewaka is the name of the sub-tribe

Ngāti Kahungunu in the Wairarapa is the name of the tribe.

Aoraki is the name of the mountain

Rāpaki and Tūāhiwi are the names of the meeting places

Ngāti Wheke and Ngāti Tūāhuriri are the names of the sub-tribes

Ngāi Tahu is the name of the tribe.

I am Liz McKinley.

REFERENCES

Alic, Margaret (1986) *Hypatia's heritage*. London, The Women's Press.

Arnold, Lois Barber (1984) *Four lives in science*. New York, Schocken Books.

Ashcroft, Bill; Griffiths, Gareth and Tiffin, Helen (eds) (1995) *The post-colonial studies reader*. London, Routlege.

Awatere, Donna (1984) *Māori Sovereignty*. Auckland, Broadsheet.

Ballara, Angela (1993) Wahine Rangatira: Māori women of rank and their role in the women's Kotahitanga movement of the 1890s. *The New Zealand Journal of History*, 27 (2), 127-139.

Bannerji, Himani (1997) Geography lessons: on being an insider/outsider to the Canadian nation. In Roman, Leslie G. & Eyre, Linda (eds) *Dangerous territories: struggles for difference and equality in education*. Routledge, New York.

Barrett, Michele (1991) *The politics of truth: from Marx to Foucault*. Cambridge, Polity Press.

Barrington, J.M. (1966) Māori scholastic achievement: a historical review of policies and provisions. *New Zealand Journal of Education Statistics*, 1, 1-14.

Barrington, J. M. (1988) Learning the dignity of labour: secondary education policy for Māoris. *New Zealand Journal of Educational Studies*, 23 (1), 45-58.

Barrington, J. M. & Beaglehole, E. (1974) *Māori schools in a changing society*. Wellington, New Zealand Council for Educational Research.

Beets, Jacqui Sutton (1997) Images of Māori women in New Zealand Postcards after 1900. *Women's Studies Journal* 13 (2) pp7-24.

Beever, Jessica & Gresson, Julia (1995) Polytrichum commune Hedw. and Polytrichadelphus magellanicus (Hedw.) Mitt. used as decorative material on New Zealand Māori cloaks. *Journal of Bryology* 18 (4), 819-823.

Belich, James (1996) *Making Peoples*. Auckland, The Penguin Press.

Bell, Avril (1996) We're just New Zealanders. In Spoonley, Paul, Pearson, David & Macpherson, Cluny (eds) *Nga Patai*. Palmerston North, Dunmore Press.

Bell, Beverley (1988) Girls and Science. In S. Middeton (ed) *Women and Education in Aotearoa*. Auckland, Allen and Unwin.

Bell, Leonard (1980) *The Māori in European Art*. Auckland, A. H. & A. W. Reed.

Benton, Richard (1979) *The Māori language in the nineteen seventies*. Wellington, New Zealand Council for Educational Research.

Benton, Richard (1981) *The flight of the amokura*. Wellington, New Zealand Council for Educational Research.

Bernal, Martin (1987) *Black Athena*. London, Free Association Books.

Best, Elsdon (1924) *Māori Religion and Mythology.Part 1.* Wellington, Government Printer. (1995 Printing of the Dominium Museum Bulletin Number 10)

Bhabha, Homi (1994) *The location of culture.* London, Routledge.

Bhavani, Kum-Kum (2001) Introduction. In Bhavani, Kum-Kum (ed) *Feminism and race.* Oxford, Oxford University Press.

Biggs, Bruce (1960) *Māori marriage: an essay in reconstruction.* Wellington, Reed for the Polynesian Society.

Binney, Judith and Chaplin, Gillian (1986) *Nga Morehu – The survivors.* Auckland, Oxford University Press.

Bleier, Ruth (1984) *Science and gender: a critique of biology and its theories on women.* New York, Pergamon Press.

Bolt, Christine (1971) *Victorian Attitudes to Race.* London, Routledge & Kegan Paul

Brace, C. Loring & Montagu, Ashley (1977) *Human Evolution* (2nd Edition). New York, Macmillan Publishing.

Bronowski, Jacob (1973) *The ascent of man.* London, British Broadcasting Corporation.

Brookes, Barbara, Macdonald, Charlotte & Tennant, Margaret (1992) (eds) *Women in history: essays on European women in New Zealand.* Wellington, Allen & Unwin/Port Nicholson Press

Brown, William (1845) *New Zealand and its Aborigines.* London, Smith, Elder & Co.

Brown, William (1851) *New Zealand and its Aborigines.* London, J. & D. A. Darling.

Brown, J. MacMillan (1907) *Māori and Polynesian: Their origin, history and culture.* London, Hutchinson & Co.

Brickhouse, Nancy (1994) Bringing in the outsiders: reshaping the sciences of the future. *Journal of Curriculum Studies,* 26 (4), July-August, pp401-416.

Britzmann, Deborah (1998) *Lost subjects, contested objects.* Albany, State University of New York Press.

Buck, Sir Peter (1958) *The Coming of the Māori.* Wellington, Whitcombe & Combes.

Buller, Rev. James (1878) *Forty Years In New Zealand.* London, Hodder & Stoughton.

Butchers, A. G. (1930) *Education in New Zealand: a historical survey.* Dunedin, Coulls Somerville Wilkie.

Butler, Judith (1993) *Bodies that matter.* New York & London, Routledge.

Butler, Judith (1997) *The psychic life of power.* Stanford, Stanford University Press.

Byrne, Eileen (1993). *Women and science: The snark syndrome.* London : Falmer Press.

Casey, Kathleen (1993) *I answer with my life.* New York & London, Routledge.

Casey, Kathleen (1995) The new narrative research in education. *Review of Research in Education* 21, 1995-1996, 211-253.

Christian, Barbara (1995) The race for theory. In Ashcroft, Bill; Griffiths, Gareth and Tiffin, Helen (eds) *The post-colonial studies reader.* London, Routlege.

Christie, M. J. (1991) Aboriginal science for the ecologically sustainable future. *Australasian Science Teachers Journal,* 31 (1), 26 - 31.

Clewell, Beatriz Chu, Anderson, Bernice Taylor & Thorpe, Margaret E. (1992) *Breaking the barriers: helping female and minority students succeed in mathematics and science.* San Francisco, Jossey-Bass Inc. Publishers

Colenso, William (1865) *Ethnology. On the Māori Races of New Zealand .* New Zealand Exhibition.

Collins, Patricia Hill (1990) *Black feminist thought: knowledge, consciousness, and the politics of empowerment.* New York & London, Routledge.

Cooper, G. S. (1868-69) Report from Mr G. S. Cooper, Esq., Resident Magistrate, Napier (1 April, 1868) *Great Britain Parliamentary Papers. Colonies: New Zealand (GBPP),* 1837-38, IUP Vol.15, p177.

Corboy, Michael (1973) *Government policy and New Zealand education 1840-1847.* A dissertation submitted in partial fulfilment of a Master of Education, University of Waikato, Hamilton.

Darwin, Charles (1906) *The descent of man and selection in relation to sex.* London, John Murray.

Darwin, Charles (1959) *The voyage of the Beagle.* London, J. M. Dent & Sons Ltd.

Darwin, Charles (1999) *The expression of the emotions in man and animals.* (Introduction, afterword and commentaries by Paul Ekman.) London, Fontana Press.

Davies, Carole Boyce (1994) *Black women, writing and identity.* London and New York, Routledge.

Derrida, Jacques (1976) *Of grammatology.* [Trans. by Gayatri Chakravorty Spivak.] Baltimore, Maryland, The John Hopkin's University Press.

Dewes, Te Kapunga (1977) The case for oral arts. In King, Michael (ed) *Te ao hurihuri, The world moves on.* New Zealand, Hicks, Smith & Sons/Methuen.

Dickson, Matiu (2002) Personal comment. Rocket Café, Hamilton East, Friday, 14 June, 2002.

Domett, Alfred (1872) *Ranolf and Amohia. A South-Sea Daydream.* London, Keagan Paul, Trench & Co.

Domett, Alfred (1883) *Ranolf and Amohia. A Dream of Two Lives.* London, Keagan Paul, Trench & Co.

Douglas, Mary (1966) *Purity and danger.* London, Routledge & Kegan Paul.

Edwards, Mihipeka (1990) *Mihipeka: Early Years.* Auckland, Penguin Books.

Edwards, Mihipeka (1992) *Mihipeka: Time of Turmoil. Nga Wa Raruraru.* Auckland, Penguin Books.

Ellsworth, Elizabeth (1992) Why doesn't this fell empowering? Working through the repressive myths of pedagogy. In Luke, Carmen & Gore, Jennifer (eds) *Feminisms and critical pedagogy.* New York, Routledge.

Ellsworth, Elizabeth (1997) *Teaching positions.* New York/London: Teachers College Press.

Etzkowitz, Henry; Kemelgor, Carol & Uzzi, Brian (2000) *Athena unbound: the advancement of women in science and technology.* Cambridge, UK, Cambridge University Press.

Fanon, Franz (1965) *The Wretched of the Earth.* (Trans. Constance Farrington). London, MacGibbon & Kee.

Fanon, Franz (1967) *Black Skin, White Masks.* New York, Grove Press

Fausto-Sterling, Anne (1985) *Myths of gender: biological theories about women and men.* New York, Basic Books.

Fitzgerald, T. K. (1970) The first generation of Māori university graduates: a historical sketch. *New Zealand Journal of Education Studies,* 5 (1), 47-62.

Fordham, Signithia (1988) Racelessness as a factor in Black students' school success: pragmatic strategy or pyrrhic victory? *Harvard Educational Review,* 58, 1, 54-84.

Foucault, Michel (1970) *The order of things: an archaeology of the human sciences.* London, Tavistock.

Foucault, Michel (1972) *The archaeology of knowledge.* London, Tavistock

Foucault, Michel (1977) *Discipline and punish: the birth of the prison.* Harmondsworth, Penguin

Foucault, Michel (1980) *Power/knowledge: selected interviews and other writings 1972-1977.* In C. Gordon (ed). New York, Pantheon.

Foucault, Michel (1981) *The history of sexuality. Volume 1. An Introduction.* Harmondsworth, Pelican.

Foucault, Michel (1984) What is an author? In Rabinow, Paul (ed) *The Foucault Reader.* London, Penguin.

Freud, Sigmund (1938) *Totem and Taboo* from The Basic Writings of Sigmund Freud. (1938) Trans. and edited by Dr. A. A. Brill. New York, Random House.

Fry, Ruth (1985) *It's different for daughters*. Wellington, New Zealand Council for Educational Research (NZCER).

Fuss, Diana (1995) *Identification papers*. New York/London, Routledge.

Gascoigne, John (1994)*Joseph Banks and the English Enlightenment* . Cambridge: Cambridge University Press

George, J. & Glasgow, J. (1988) Street science and conventional science in the West Indies. *Studies in Science Education*, 15, 109-118.

Gilbert, J. (1993). *feminism/science education*. Centre for Science, Mathematics and Technology Education Research, University of Waikato, Hamilton, New Zealand.

Gilbert, Jane (1998) *Thinking 'other-wise': Re-thinking the problem of girls and science education in the post-modern*. Unpublished DPhil thesis, University of Waikato, Hamilton, New Zealand.

Gilman, Sander L. (1985) *Difference and Pathology : Stereotypes of sexuality, race, and madness*. New York, Cornell University Press.

Gilman, Sander (1991) *The Jew's Body*. New York & London, Routledge.

Goldberg, Steven (1973)*The inevitability of patriarchy*. New York, William Morrow & Company.

Goldberg, Steven (1993)*Why men rule; a theory of male dominance*. Chicago, Open Court.

Gould, Stephen Jay (1981) *The Mismeasure of Man*. New York, Norton.

Gould, Stephen Jay (1993) American polygeny and craniometry before Darwin: Blacks and Indians as separate, inferior species. In Harding, Sandra (ed) *The "racial" economy of science*. Bloomington, Indiana University Press.

Grosz, Elizabeth (1989) *Sexual Subversions*. St Leonards, NSW, Allen & Unwin.

Grosz, Elizabeth (1990) The Body of Signification. In Fletcher, John & Benjamin, Andrew (eds)*Abjection, Melancholia and Love. The Works of Julia Kristeva*. London & New York, Routledge.

Grosz, Elizabeth (1994) *Volatile bodies*. Bloomington & Indianapolis, Indiana University Press.

Gudgeon, Thomas Wayth (1885) *History and Traditions of the Māori from 1820 - 1840*. Auckland, H. Brett.

Haami, Bradford (1993) Cultural knowledge and traditions relating to the kiore rat in Aotearoa: Part 1. *SAMEpapers 93*, Hamilton, New Zealand, Centre for Science, Mathematics and Technology education Research, University of Waikato.

Haeckel, Ernst (c1910) *The evolution of man: a popular scientific study.* Volumes 1 & 2. (Translated from the 5th Edition by Joseph McCabe.) London, Watts & Co.

Hall, Stuart (1993) Encoding/decoding. In During, S. (ed) *The cultural studies reader.* London, Routledge.

Hammonds, Evelynn (1993) Never meant to survive: a Black woman's journey. In Harding, Sandra (ed) *The "racial" economy of science.* Bloomington, Indiana University Press.

Hammonds, Evelynn (1997) Toward a genealogy of black female sexuality: the problematic of silence. In M. Jacqui Alexander & Chandra Talpade Mohanty (eds) *Feminist genealogies, colonial legacies, democratic futures.* New York/London, Routledge.

Hanson, F. Allan (1982) Female Pollution in Polynesia? *Journal of the Polynesian Society,* 91, 335-381

Haraway, Donna (1988) Situated knowledges: the science question in feminism as a site of discourse on the privilege of partial perspective. *Feminist Studies,* 14 (3), 575-600.

Haraway, Donna (1989) *Primate visions: gender, race, and nature in the world of modern science.* New York, Routledge.

Haraway, Donna (1991) *Simians, cyborgs and women: the reinvention of nature.* New York, Routledge.

Haraway, Donna (1996) Situated knowledges: the science question in feminism and the privilege of partial perspective. In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science.* Oxford, Oxford University Press.

Haraway, Donna J. (1997) *Modest_Witness@Second_Millenium. Female Man©_Meets_OncoMouse™. Feminism and Technoscience.* New York, Routledge.

Harding, Sandra (1985) The science question in feminism. Milton Keynes, Open University Press

Harding, Sandra (1991) *Whose science? Whose knowledge? Thinking from women's lives.* Milton Keynes, Open University Press

Harding, Sandra (ed) (1993) *The "racial" economy of science: towards a democratic future.* Bloomington, Indiana University Press

Harding, Sandra (1998) *Is science multicultural? Postcolonialisms, feminisms and epistemologies.* Bloomington, Indiana University Press.

Henriques, J., Hollway, W., Urwin, C., Venn, C. and Walkerdine, V. (1984) *Changing the subject: Psychology, social regulation and subjectiviy.* London, Methuen.

Heuer, Berys (1972) *Māori women.* Wellington, A. H. & W. H. Reed.

Hodson, Derek (1993) In search of a rationale for multicultural science education. *Science Education*, 77 (6), 685-711

hooks, bell (1984) *Feminist theory: from margin to centre* Boston, South End Press.

hooks, bell (1995) *Killing rage: ending racism*. New York, Henry Holt & Company.

Hursthouse, Charles (1857) *New Zealand, or Zealandia, The Britain of the South*. Vol 1. London, Edward Stanford.

Irigaray, Luce (1985) *This sex which is not one*. Ithaca, New York, Cornell University Press.

Irwin, Kathie (1992) Becoming an academic: contradictions and dilemmas of a Māori feminist. In Middleton, Sue & Jones, Alison (eds) *Women and education in Aotearoa 2*. Wellington, Bridget Williams Books.

Jackson, Moana (1992) The Treaty and the Word: The colonisation of Māori Philosophy. In Oddie, G. & Perrett, R. W. (eds) *Justice, Ethics, and New Zealand Society* . Auckland, Oxford University Press.

Jagose, Annamarie (1993) Slash and suture:post/colonialism in 'Borderlands/La Frontera: the new Mestiza'. In Gunew, Sneja & Yeatman, Anna (ed) *Feminism and the politics of difference*. Wellington, Bridget Williams Books.

Jegede, O. (1988) The development of science, technology and society curricula in Nigeria. *International Journal of Science Education*, 10 (4), 399-408.

Jenkins, Kuni (1993) *Becoming literate - becoming English*. (Monograph No 14). Auckland, Research Unit for Māori Education, University of Auckland.

Jenkins, Kuni & Matthews, Kay Morris (1995) *Hukarere and the politics of Māori girls' schooling 1875-1995*. Palmerston North, Dunmore Press.

Jones, Deborah (1998) *Possibilities of transformation: discourses of difference in organisational communication*. Unpublished DPhil thesis, University of Waikato, Hamilton, New Zealand.

Jordanova, Ludmilla (1999) Natural facts: a historical perspective on science and sexuality. In Price, Janet & Shildrick, Margrit (eds) *Feminist theory and the body*. New York, Routledge.

Kahle, Jane Butler (1988) Gender and Science Education: II. In Peter Fensham (ed) *Development and Dilemmas in Science Education*. Lewes, Flamer Press.

Kahukiwa, Robyn & Grace, Patricia (1984)*Wahine Toa: Women of Māori Myth*. Auckland, William Collins.

Karetu, Sam (1977) Language and the protocol of the marae. In King, Michael (ed) *Te ao hurihuri, The world moves on*. New Zealand, Hicks, Smith & Sons/Methuen.

Keith, Hamish (1976) Christopher Perkins in New Zealand. *Art New Zealand*, Volume 1, August/September.

Keller, Evelyn Fox (1977) The anomaly of a woman in physics. In Ruddick, Sara and Daniels, Pamela (eds) *Working it out: twenty three writers, scientists and scholars talk about their lives*. New York, Pantheon.

Keller, Evelyn Fox (1982) Feminism and science. *Signs,* 7 (3) ??

Keller, E. F. (1983). *A Feeling for the Organism: The Life and Work of Barbara McClintock*. San   Francisco, W. H. Freeman and Co.

Keller, Evelyn Fox (1985) *Reflections on gender and science*. New Haven, Yale University Press.

Keller, Evelyn Fox (1996) Feminism and science. In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science*. Oxford, Oxford University Press.

Keller, Evelyn Fox & Longino, Helen E. (1996) (eds) Introduction. *Feminism and science*. Oxford, Oxford University Press.

Kelly, Alison (1981) *The missing half: Girls and science education*. Manchester, Manchester University Press.

Kelly, Alison (ed) (1987) *Science for Girls?* Milton Keynes, Open University Press.

King, Michael (1977) *Te Puea*. Auckland, Hodder & Stoughton Ltd.

Kohli, Wendy (1999) Performativity and pedagogy: the making of educational subjects. *Studies in Philosophy and Education*, 18, 319-326.

Kristeva, Julia (1982) *Powers of Horror*. New York, Columbia University Press.

Kristeva, Julia (1986) *The Kristeva Reader* (Edited by Toril Moi). Oxford, Basil Blackwell.

Kundsin, Ruth (1965) Why nobody wants women in science. *Science Digest*, 58 (October), 60-65.

Lacan, J (1978) *The four fundamental concepts of psychoanalysis*. In Miller, J. A. (ed). A. Sheridan (trans). New York, Norton.

Lacan, Jacques (1977) *Ecrits: a selection*. (Translated by Alan Sheridan) New York, Norton.

Lather, Patricia (1991) Getting smart: feminist research and pedagogy with/in the postmodern. New York, Routledge.

Lévesque, Andrée (1986) Prescribers and rebels. In Brookes, Barbara, Macdonald, Charlotte & Tennant, Margaret (eds) *Women in history: essays on European women in New Zealand.* Wellington, Allen & Unwin/Port Nicholson Press

Lévi-Strauss, Claude (1962) *The Savage Mind.* [English translation George Weidenfeld & Nicholson Ltd, 1966] Letchworth, Hertfordshire: The Garden City Press.

Lloyd, Genevieve (1996)*Reason, science and the domination of matter.* In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science.* Oxford, Oxford University Press.

Lorde, Audre (2001) The master's tools will never dismantle the master's house. In Bhavnani, Kum-Kum (ed) *Feminism and 'race'.* Oxford, Oxford University Press.

Lowe, Marian & Hubbard, Ruth (1979) *Pitfalls in genes and gender research.* New York, Gordian Press.

Mahuika, Api (1992) Leadership: inherited and achieved. In Michael King (ed)*Te Ao Hurihuri: Aspects of Māoritanga.* Auckland, Reed Books.

Mama, Amina (1995) *Beyond the Masks.* London, Routledge.

Mann, Bob (1995) Kept secret. Letter to the editor. *New Zealand Herald.* 25 April, 1995.

Marsden, Māori (1992) God, Man and Universe: A Māori View. In Michael King (ed) *Te Ao Hurihuri: Aspects of Māoritanga.* Auckland, Reed Books.

Martin, Emily (1996) The egg and the sperm: how science has constructed a romance based on stereotypical male-females roles. In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science.* Oxford, Oxford University Press.

Martin, Paula (1996) (compiler). *He Tiro Arotahi ki te Pūtaiao, te Pāngarau me te Hangarau.* (Māori into Science, Maths and Technology). Wellington : Te Puni Kokiri.

Matthews, Kay Morris (1993) *For and about women: women's studies in New Zealand universities 1973-1990.* Unpublished doctoral thesis, The University of Waikato, Hamilton, New Zealand.

Matthews, Michael (1995) *Challenging New Zealand Science Education.* Palmerston North, Dunmore Press.

McCauley, Tania (2001, August 24) Women stamp their mark on science. *Hawkes Bay Today.* Retrieved August 24, 2001, from http://www.mytown.co.nz/story/

McClintock, Anne (1995) *Imperial leather.* New York, Routledge.

McDonald, J. (1922) Preface. In Best, Elsdon *Some Aspects of Māori Myth and Religion*. Wellington, Government Printer.

McKinley, Elizabeth (1995) *A power/knowledge nexus: Writing a science curriculum in Māori*. Unpublished MEd thesis, University of Waikato, Hamilton, New Zealand.

McKinley, Elizabeth, Waiti, Pauline & Bell, Beverley (1992) Language, Culture and Science education. *International journal of Science Education* 14(5) 579-595

McKinley, Elizabeth (1996) Towards an Indigenous science curriculum. *Research in Science Education*, 26 (2) 155-167.

Merchant, Carolyn (1980) *The death of nature: women, ecology and the scientific revolution*. San Francisco, Harper and Row.

Middleton, Sue (1985) *Feminism and education in post-war New Zealand: a sociological analysis*. Unpublished PhD thesis, University of Waikato, Hamilton, New Zealand.

Middleton, Sue (1993) *Educating Feminists: life histories and pedagogy*. New York, Teachers' College Press.

Middleton, Sue (1998) *Disciplining sexuality*. New York, Teachers' College Press.

Middleton, Sue & May, Helen (1997) *Teacher's talk teaching 1915-1995*. Palmerston North, Dunmore Press.

Mikaere, Annie (1995) *The balance destroyed: the consequences for Māori women of the colonisation of tikanga*. Unpublished Master's of Jurisprudence, University of Waikato.

Miller, Jane (1990) *Seductions: studies in reading and culture*. London, Virago.

Ministry of Education (1993) *Science in the New Zealand curriculum*. Wellington, Learning Media

Ministry of Education (1996) *Te tauākī marautanga pūtaiao*. (National science curriculum statement in Māori) Wellington, Learning Media.

Mohanram, Radhika (1999) *Black Body*. St Leonards, Allen & Unwin.

Mohanty, Chandra Talpade (1991) Under western eyes: feminist scholarship and colonial discourses. In Mohanty, Chandra Talpade, Russo, Ann & Torres, Lourdes (eds) *Third World women and the politics of feminism*. Bloomington and Indianapolis, Indiana University Press.

Molloy, Maureen (1999) Death and the maiden: the feminine and the nation in recent New Zealand films. *Signs*, 25, 1, 153-170.

Morrison, Toni (1994) *The bluest eye*. London, Picador/Chatto & Windus.

Munro, Petra (1998) *Subject to fiction*. Buckingham, Open University Press.

Muter, Mrs (1864) *Travels and Adventures of an Officer's Wife in India, China and New Zealand.* Volume 2. London, Hurst and Blackett.

Nayaran, Uma (1997) *Dislocating cultures: identities, traditions, and Third World feminism.* New York & London, Routledge.

Ogawa, Masakata (1989) Beyond the tacit framework of 'science' and 'science education' among science educators. *International Journal of Science Education,* 11 (3), 247-250.

Olssen, Mark (1988) (ed) *Mental testing in New Zealand.* Dunedin, Otago University Press.

Openshaw, Roger, Lee, Greg & Lee, Howard (1993) *Challenging the myths. Rethinking New Zealand's Educational History.* Palmerston North, Dunmore Press.

Orner, Mimi (1998) School marks: education, domination and female subjectivity. In Popkewitz, Thomas S. & Brennan, Marie (eds) *Foucault's challenge: discourse, knowledge, and power in education.* New York, Teachers College Press.

Papakura, Maggie (1986) *Makereti: the old-time Māori.* Auckland, New Women's Press.

Parry, Benita (1995) problems in current theories of colonial discourse. In Ashcroft, Bill; Griffiths, Gareth and Tiffin, Helen (eds) (1995) *The post-colonial studies reader.* London, Routlege.

Pere, Rangimarie Rose (1982) *Ako: Concepts and Learning in the Māori Tradition.* Hamilton, New Zealand, Department of Sociology, University of Waikato.

Pere, Rangimarie Rose (1988) Te Wheke: whaia te maramatanga me te aroha. In Middleton, Sue (ed) *Women and education in Aotearoa.* Wellington, Allen & Unwin.

Pihama, Leonie (1994) Redrawing the maps: the plural society and its futures. *Te Pua* 3 (2), 37-41.

Polack, J. S. (1837-1838) Statement of Mr J. S. Polack, (7 August, 1838), *Great Britain Parliamentary Papers. Colonies: New Zealand (GBPP),* 1837-38, IUP Vol. 1, p84.

Pope, James H. (1888) Eleventh Annual Report of the Minister of Education. *Appendix to the Journals of the House of Representatives (AJHR),* 1888, Volume D-G, E-2, p.8

Quinn, Susan (1995) *Marie Curie, A Life.* London, Heinemann.

Rangihau, John (1975) Being Māori. In King, Michael (ed) *Te Ao Hurihuri, The World Moves On.* New Zealand, Hicks Smith & Son/Methuen.

Reeves, W. P. (1902) *State Experiments in Australia and New Zealand*. Volume 1. London, Grant Richards.

Reid, Robert (1974) *Marie Curie*. London, Collins.

Rich, Adrienne (1979) *On lies, secrets, and silence*. New York, Norton.

Rickard, Eva (1977) Whenua (Television interview transcript). In Gadd, Bernard (ed) *Pacific Voices*. Albany, Stockton House.

Rose, Hilary (1994) *Love, power, and knowledge: towards a feminist transformation of the sciences*. Bloomington, Indiana University Press.

Rossiter, Margaret (1982) *Women Scientists in America: Struggles and Strategies to 1940*. Baltimore, John Hopkins.

Rossiter, Margaret (1995) *Women Scientists in America: Before Affirmative Action 1940 - 1972*. Baltimore, John Hopkins.

Said, Edward (1978) *Orientalism*. London, Penguin.

Said, Edward (1993) *Culture and imperialism*. London, Vintage.

Salmond, Anne (1997) *Between worlds: early exchanges between Māori and Europeans 1773-1815*. Auckland, Penguin Books.

Sarup, Madan (1993) *An introductory guide to poststructuralism and postmodernism* (2nd edition). Hemel Hempstead, Harvester Wheatsheaf.

Sawicki, Jana (1991) *Disciplining Foucault, feminism, power and the body*. New York, Routledge.

Scheman, Naomi (1996) Though this be method, yet there is madness in it: paranoia and liberal epistemology. In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science*. Oxford, Oxford University Press.

Schiebinger, Londa (1987) The history and philosophy of women in science: a review essay. *Signs*, 12 (2), 305-332.

Schiebinger, Londa (1989) *The mind has no sex? Women in the origins of modern science*. Cambridge, Massachusetts, Harvard University Press.

Schiebinger, Londa (1993) *Nature's body: sexual politics and the making of modern science*. London, Pandora.

Scott, Joan (1988) *Gender and the politics of history*. New York, Columbia University Press.

Selden, Steven (1999) *Inheriting shame*. New York & London, Teachers College Press.

Shiva, Vandana (1988) *Staying alive: women, ecology, and development*. London, Zed Press.

Shohat, Ella & Stam , Robert (1994) *Unthinking Eurocentrism*, New York, Routledge.

Sibley, David (1995) *Geographies of Exclusion*. London, Routledge.

Simon, Judith & Smith, Linda Tuhiwai (2001) *A civilising mission? Perceptions and representations of the Native Schools system*. Auckland, Auckland University Press.

Sommer, Doris (1988) "Not just a personal story": Women's Testimonios and the plural self. In Bella Brodzki & Celeste Schenck (eds) *Life/lines: theorizing women's autobiography*. Ithaca & London, Cornell University Press.

Smith, Cherryl Waerea-i-te-rangi (2000) Straying beyond the boundaries of belief: Māori epistemologies inside the curriculum. *Educational Philosophy and Theory*, 32 (1), pp43-51.

Smith, Linda Tuhiwai (1991) Te rapunga i te ao Māori (The search for the world of light). In Morss, John & Linzey, Tim (eds) *Growing up: the politics of human learning*. Auckland, Longman Paul.

Smith, Linda Tuhiwai (1993) Getting out from down under: Māori women, education and the struggles for Mana Wahine. In Arnot, Madeleine & Weiler, Kathleen (eds) *Feminism and social justice in education*. London, Falmer Press.

Smith, Linda Tuhiwai (1999a) Connecting pieces: finding the indigenous presence in the history of women's education. In Weiler, Kathleen & Middleton, Sue (eds) *Telling women's lives*. London/New York, Open University Press.

Smith, Linda Tuhiwai (1999b) *Decolonizing methodologies: research and indigenous peoples*. Dunedin, University of Otago Press.

Smith, Percy (1913) *The lore of the whare wananga or Teachings of the Māori college*. New Plymouth, Thomas Avery.

Smith, Sidonie (1987) *A poetics of women's autobiography*. Bloomington, Indiana University Press.

Spelman, Elizabeth (2000) Gender and race: the ampersand problem in feminist thought. In Bhavnani, Kum-Kum (ed) *Feminism and race*. Oxford, UK, Oxford University Press.

Spivak, Gayatri Chakravorty (1976) Introduction. In Derrida, Jacques, *Of Grammatology (De la Grammatologie)*. Trans. Gayatri Chakravorty Spivak. Baltimore, John Hopkins University Press.

Spivak, Gayatri Chakravorty (1984) The Rani of Sirmur. In Francis Barker, Peter Hulme, Margaret Iversen & Diana Loxley (eds) *Europe and its others*. Proceedings of the Essex Conference on the Sociology of Literature, University of Essex, Colchester. July 1984.

Spivak, Gayatri Chakravorty (1988a) *In other worlds. Essays in cultural politics*. New York, Routledge.

Spivak, Gayatri Chakravorty (1988b) Can the subaltern speak? Speculations on widow sacrifice. In Nelson, Cary & Grossberg, Lawrence (eds) *Marxism and the interpretation of culture*. London, Macmillan.

Spivak, Gayatri Chakravorty (1989) In a word. *differences*, 1(2), 124-156

Spivak, Gayatri Chakravorty (1990) *The postcolonial critic*. New York, Routledge

Spivak, Gayatri Chakravorty (1996a) Subaltern studies: deconstructing historiography. In Landry, Donna & MacLean, Gerald (eds) *The Spivak Reader*. New York, Routledge.

Spivak, Gayatri Chakravorty (1996b) Feminism and Critical Theory. In Landry, Donna & MacLean, Gerald (eds) *The Spivak Reader*. New York, Routledge.

Spivak, Gayatri (1999) *A Critique of Postcolonial Reason*. Cambridge, Mass.: Harvard University Press.

Stanley, Autumn (1983) Women hold up two-thirds of the sky. In Rothschild, Joan (ed) *Machina Ex Dea*. New York, Pergamon Press.

Steedman, J. A. W. (1984) *Nga Ohaki o nga Whanau of Tauranga Moana*. Tauranga, Publicity Print.

Stepans, Nancy (1993) Race and Gender, The Role of Analogy. In Harding, Sandra (1993) *The "racial" economy of science*. Bloomington, Indiana University Press.

Stoler, Ann Laura (1995) Race and the education of desire. London, Duke University Press.

Strachan, Stuart (1984) Archives of giovernment science in New Zealand. In, Hoare, M. E. & Bell, L. G. (eds) *In search of New Zealand's scientific heritage*. Bulletin 21. Wellington, The Royal Society of New Zealand, pp71-79.

Taki, Mereana & Smith, Cheryl (1993) Hoihoi wahine Pākehā. *Te Pua* 2 (1&2), 38-42.

Te Awekotuku, Ngahuia (1988) He whare tangata: He whare kura? What's happening to our Māori girls? In Middleton, Sue (ed) *Women and Education in Aotearoa*.Wellington, Allen & Unwin.

Te Awekotuku, Ngahuia (1991) *Mana Wahine Māori*. Auckland, New women's Press.

Thiong'o, Ngugi wa (1995) The language of African literature. In Ashcroft, Bill, Griffiths, Gareth & Tiffin, Helen (eds) *The post-colonial studies reader*. New York & London, Routledge.

Tiles, Mary (1996) A science of Mars or Venus? In Keller, Evelyn Fox & Longino, Helen E. (eds) *Feminism and science*. Oxford, Oxford University Press.

Tregear, Edward (1885) *The Aryan Māori*. Wellington, Government Printer.

Tregear, Edward (1904) *The Māori Race*. Wanganui, A. D. Willis (ET)

Trinh, T. Minh-ha (1989) *Woman, Native, Other*. Bloomington, Indiana University Press.

Trinh, T. Minh-ha (1995) No master territories. In Ashcroft, Bill, Griffiths, Gareth & Tiffin, Helen (eds) *The post-colonial studies reader*. London & New York, Routledge.

Troyna, Barry (1987) Beyond multiculturalism: towards the enactment of anti-racist education in policy, provision and pedagogy. *Oxford Review of Education*, 13, 307-320.

Tuana, Nancy (ed) (1989) *Feminism and science*. Bloomington, Indiana University Press.

Walker, Ranginui (1990) *Struggle without end, Ka whawhai tonu matou*. Auckland, Penguin.

Walkerdine, Valerie (1990) *Schoolgirl Fictions*. London, Verso.

Warren, Wini (1999) *Black women scientists in the United States*. Bloomington, Indiana University Press.

Watkins, John (1837-38) Statement of Mr John Watkins, (7 August, 1838), *Great Britain Parliamentary Papers. Colonies: New Zealand (GBPP)*, 1837-38, IUP Vol. 1, pp16-17.

Weedon, Chris (1987) *Feminist practice and poststructuralist theory*. Oxford, Blackwells.

Williams, Patricia J. (1991) *The Alchemy of Race and Rights*. Cambridge, Massachusetts, Harvard University Press.

Wilkinson, Rev. F (1837-1838) Statement of Rev. F. Wilkinson, (7 August, 1838), *Great Britain Parliamentary Papers. Colonies: New Zealand (GBPP)*, 1837-38, IUP Vol. 1, p99.

Wood, Rev. J. G. (1868) *The Natural History of Man; being an Account of the Manners and Customs of the Uncivilised Races of Men*. Volume 2. London, George Routledge & Sons. (W2)

Yamamoto, Traise (1999) *Masking selves, making subjects*. Berkeley/Los Angeles, University of California Press.

Yates-Smith, G. R. Aroha (1998) *Hine! E Hine!: rediscovering the feminine in Māori spirituality*. Unpublished doctoral thesis, The University of Waikato, Hamilton, New Zealand.

Young, Robert (1995) Foucault on race and colonialism. *New Formations 25* (Summer) pp57-65.

Young, Robert (1995b) *Colonial desire*. London, Routledge.

Zuckerman, Harriet, Jonathon R. Cole & John T. Bruer (eds) (1991) *The Outer Circle*. New Haven, Yale University Press.