

From object to subject: hybrid identities of indigenous women in science

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Abstract The use of hybridity today suggests a less coherent, unified and directed process than that found in the Enlightenment science's cultural imperialism, but regardless of this neither concept exists outside power and inequality. Hence, hybridity raises the question of the terms of the mixture and the conditions of mixing. Cultural hybridity produced by colonisation, under the watchful eye of science at the time, and the subsequent life in a modern world since does not obscure the power that was embedded in the moment of colonisation. Indigenous identities are constructed within and by cultural power. While we all live in a global society whose consequences no one can escape, we remain unequal participants and globalisation remains an uneven process. This article argues that power has become a constitutive element in our own hybrid identities in indigenous people's attempts to participate in science and science education. Using the indigenous peoples of Aotearoa New Zealand (called Māori) as a site of identity construction, I argue that the move from being the object of science to the subject of science, through science education in schools, brings with it traces of an earlier meaning of 'hybridity' that constantly erupts into the lives of Māori women scientists.

Keywords Indigenous women · Hybrid identity · Colonialism · Subjectivity

Mai i te kaupapa ki te kaikōrero: ngā tuakiri momorua o ngā wahine Māori i roto i te pūtaiao

I takea mai te whakaaro mō te 'momoruatanga' i te mātai koiiora, mātai tipu hoki. Ka roa, ka whakawhiti atu te whakaaro nei ki te ao mātai ahurea, mā runga i ngā whakaaro mō ngā iwi tokomaha o te ao, i kīa nā ētahi he momo koiiora rerekē. Nā tēnā, ka whakaritea te uri o

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iwi kē (pēnei i te uri o tētahi tāne Pākehā me tētahi wahine Māori) ki te tipu momorua, kīrehe momorua rānei, arā ko te uri o ētahi momo koiroa e rua.

I te ao mātai ahurea, kua uru atu te momoruatanga ki ngā kōrero mō ngā tūtakinga me ngā takenga tūturu, i a ētahi iwi rerekē e whakapā ai, tētahi ki tētahi. Ko ētahi hua matua e rua o ēnei tutakitanga ko te reo me te ai - koia te tino mahi hei tūtaki ā-iwi. I ēnei wā he nui ngā kōrero auraki e pā ana ki te momoruatanga ā-ahurea me ōna painga. E ai ki ngā kōrero, he huarahi tēnei hei whai wāhi ai ngā tāngata katoa, nā te mea he momorua katoa tātou. Kua whakawhitia katoatia ngā katinga i waenganui i ngā ahurea o mua, kua puta te momorua, tētahi mea hou, he mea whakaihiihi, he mea ohorere. Kua mutu te kōrero mō ngā mahi tūkinō i ngā iwi tangata whenua o te ao i mahia nō mua. Mai i te tirohanga tangata whenua, he tika kia tūpato ki ngā kōrero momorua nei. Kia tino mārama ki te momoruatanga ā-ahurea i ēnei rā, kia kaua e warewaretia he hītori anō tōna. Ka mau tonu ētahi āhuatanga o ngā tirohanga ki te momoruatanga ā-ahurea, mai i te wā i tūtaki tuatahi ai a Tauwi ki ngā tupuna Māori.

I ngā haerenga mai o Kāpene Kuki ki Aotearoa, i kohikohi haeretia ngā taonga o ngā tūpuna, mauria ai ki ngā whare pupuri taonga o Uropi. He maha ngā korowai me ērā atu taonga kei tāwahi tonu e noho ana. Ko tētahi korowai kei te whare 'Museo Nazionale Antropologia e Etnologia' i te tāone o Florence, whenua o Ītari. E ai ki ngā whakaaro, ka mauria atu taua korowai i te haerenga tuatoru o Kāpene Kuki i te tau 1777. Ko tōna pānui: 'korowai rimurimu nama 42'. Ka kitea taua korowai nā tētahi wāhine Pākehā nō Tāmaki-makaurau, he kaitiaki taonga i te whare taonga, i a ia i taua wāhi rā, i te tīmatanga o ngā tau 1990. Nāna i whakahokia mai tētahi wāhanga itiiti o te 'rimurimu' e hangaia ai te korowai rā ki Aotearoa, ka hoatu ki tētahi wāhine Māori, ko Mereana tōna ingoa, he kaimahi pūtaiao, he kaimātai koiroa, kia tirotirohia kia mōhio pūmau ko tēhea rimurimu tērā. Nā Mereana i tautohua ko tētahi pūkōhu, ōna ingoa tūturu ko 'teterewhete' me 'totara', tōna ingoa pūtaiao ko 'Polytrichadelphus magellanicus'. Ae marika, he korowai pūkōhu kē te 'korowai rimurimu nama 42'.

Ko wai te kaipūtaiao? Ko wai te wahine Māori? Ehara a Mereana i te kaipūtaiao nāna te korowai i mauria ki tāwahi, ehara hoki ia i te wahine nāna te korowai i hanga, heoi anō e tū ana ia hei whakamataora i a rāua tahi. He rangirua ngā kōrero mō Mereana - ko ia hoki te 'kaimōhio' (kaipūtaiao) me te 'mōhiotanga' (wahine Māori), erangi he āhua rerekē, ehara i te tārua noa iho o ia o aua mea. Ka whakatohua e Mereana te momoruatanga ingoa-kore, kei tua atu i te māramatanga tawhito mai i te koiroa, i te tauira o nāiane mai i te mātai ahurea hoki.

The incorporation of the concept of hybridity into the mainstream cultural discourse has raised a number of problems for indigenous communities. This article examines these issues through the examination of the contradictions and uncertainty of the contemporary subjectivity of Māori women scientists. On the one hand, hybridity appears to be inclusive because it involves the transgression of boundaries to create a third form. This third form has two non-synchronous characteristics. One is that the hybrid represents something 'new', an exciting and unexpected possibility. Another is that it represents and incorporates the 'past' in the form of the two (or more) originals but is not a copy of them. While this still captures an idea of something 'new' this article is more concerned with is that the hybrid has displaced them both. The idea of displacement sits uncomfortably with indigenous peoples because of the rupture and violation that has already occurred through the globalising process of colonisation. Many indigenous groups are trying to revitalise their cultures, languages and identity from the tattered remnants of a colonised history and

effects. Continual change seems like further endangerment of indigenous identities that can have material effects on the realities of indigenous peoples.

I will argue that discussions of hybridity in the populist discourse today are often preoccupied by the potential for inclusivity while its past associations with race and eugenics, which affected mostly ‘coloured’ peoples, is rarely acknowledged. Much of hybridity’s past association is manifested in coloured people’s capability to be success with science subjects and hence, affects the participation of many indigenous peoples in science education and science today. However, it will be further argued that the current global project relies on the concept of hybridity in differentiating the old order of colonialism from a supposed new ‘order of things’ (Foucault 1970). The new global order is all about the possibilities of new multiple relationships that have replaced the old coloniser/colonised relationships. Unfortunately, the ‘dark past’ of hybridity was, in part, responsible for the rupture and violation of indigenous people’s existence. It is this continuing tethering of the idea of hybridity to its past associations that create the ambivalence and danger indigenous peoples experience in their contemporary subjectivity, especially associated with science.

This article begins by exploring the original meaning of hybridity and how it was used. In order to argue that the contemporary use of the term hybridity is still connected to its past usage I will explore its historical use. In this article Aotearoa New Zealand, and particularly Māori women, act as a site for the larger question of how the concept of ‘hybrid’ was used. While Aotearoa New Zealand does not represent the extremes of its usage, the discourses of the term hybrid can be seen in our own historical past.

Tracing hybridity

The word ‘hybrid’ has been developed from its biological and botanical origins:

hybrid *noun* **1** an animal or plant produced by crossing two different species, varieties, races or breeds; a mongrel. **2** *linguistics* a word whose elements are taken from different languages, e.g., **bicycle**. **3** anything produced by combining elements from different sources. *adj* being produced by combining elements from different sources; mongrel. **hybridism** or **hybridity** *noun*. **ETYMOLOGY:** 17c: from Latin *hibrida* the offspring of a tame sow and wild boar. (Chambers 21st Century Dictionary)

However, at some point in time its usage crossed into the cultural domain, mainly through the eugenicist influenced idea that different races of people represented different species, and so ‘mixed breeding’ could be ascribed the characteristics of crossed species of plants or animals. For example, the fertility of the ‘hybrid’ appeared in a report from G. S. Cooper, a Resident Magistrate in New Zealand on his return to England in 1868. He stated that Māori women married to white men had large families but the offspring “are of themselves unfruitful as a rule, whether united to Māori or European mates” (Cooper 1868–1869, p. 177). The fact that this was recorded in the records suggest it was an idea that did not seem ‘out of the ordinary’ in a time when science was continuing to explore the world and expand horizons of knowledge by reporting on previously unknown peoples.

Basic to the understanding of the use of the term hybrid is that object or form which comes prior to the crossing of boundaries that creates the mixed product. In cultural terms, hybridity as a concept emerges out of narratives of encounter and origin and reflects the

intricate, and often intimate, process of contact between peoples. The most common and prolific products of contact are language and sex, the latter being the spearhead of racial contact. Both these products of cultural interactions—language and sex—can be, and often is, characterised with the same term, hybridity. In the nineteenth century the term was used to refer to a physiological phenomenon and rested on notions of ‘race’ and sexual desire. However, in order to understand hybridity in this context we need to explore how peoples were perceived of at the initial time of colonial contact. Whilst some contact was evident in Aotearoa New Zealand before formal colonisation, it was not until this period that difference came to be embedded in governmentality.

Organising images of racial difference, such as racial family trees or family groupings with apes, were common during the eighteenth and nineteenth centuries (see McClintock 1995). The coinciding of the Enlightenment project and the imperial project meant bring the world into a single ‘science of order’ where ‘scientific’ categorisations brought peoples who were identified as racially different under intellectual control and authority by incorporating them into the knowledge of the imperialists. As such, coloured peoples became the border or intermediaries between ‘human’ (read European) and animal—keeping the primate Order ordered. In essence, it was the mixing of previously distinct gene pools. This taxonomic order was also a political one. Ascribed to the newly ‘discovered’ groups of people, such as Māori and other coloured peoples, were qualities of degeneracy, irrationalism, barbarism and infantilism. Racially different peoples were considered to be out of place in the historical time of modernity, especially by racial scientists and eugenicists. In contrast, ‘white’ peoples were seen to be the epitome of progress, rationality and intellect. Carolus Linnaeus’ ‘great chain of being’ set up the concept of an evolutionary chain from ape to white man and a place for every other group in-between. In the case of the British, who became the settlers in Aotearoa New Zealand, Māori could be civilised and educated but only through the mixing of the blood. While it was believed that the ‘white race’ would decline through inter-racial sexual reproduction, there was also the belief that eventually the ‘non-white’ blood would be so small it would amount to no real consequence. In other words, the hybrid offspring would be irredeemably estranging in that cultural differences would simply not be there to be seen or appropriated. Furthermore, the gap between Europeans and apes would increase. The science of race intervened at the level of subjectivity and made coloured peoples objects of knowledge.

Historically hybridity served as a metaphor for the negative and positive consequences, often simultaneously, of racial encounters. It is a term that has been racialised and closely tied to purity and exclusivity. As such it has served as a threat to the fullness of selfhood. Some typologies became very detailed when categorisations were based on ‘mixture of blood’. It was believed 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 (Young 1995; Sequoia 2005). 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 (Buller 1878). However, not all people believed in the more negative connotations. At the same time, there is little doubt the offspring of intermarriage between Māori and Europeans, often referred to as Euronesian from European and Polynesian, were seen as a benefit to the Māori race and a sign of superiority “inherit[ing] the fine physical constitution of the native, with the mental vivacity of the European” (Brown 1845, p. 42). This led people to hope of the legitimate amalgamation of the native and European races in the mid nineteenth century. In the discourse of physiology hybridity was used to simultaneously

question and argue for degeneracy and superiority; fecundity and sterility; inclusion and exclusion.

Race is also about sexual desire. Organising images of sexual difference included the myth of virgin lands, women as the central transmitter of racial and cultural contagion, and the controlling of women's sexuality. The primitive female as sexual objects appear in many well known art works, such as Gauguin's paintings of Tahitian women. While postcards and pictures serve as ethnographic representations, others project images of fantasy and desire, promiscuity and eroticism, exotic and alluring. I have argued elsewhere that most of the women found in the fantasy pictures were 'hybrids', that is the products of mixed racial relationships (see McKinley 2005). The pictures feature 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. The women in the pictures 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. The offspring of intermarriage were seen as a benefit to the Māori race and a sign of superiority. In addition, there were many comparisons of women from 'mixed marriages' with the women of Southern Europe, Italy and gypsies. Stoler (1995) argues that the historical use of the term 'hybrid' was about a 'racially erotic counterpoint' around the libidinous energies of the savage, the primitive, and the colonised. All these are the reference points of difference, critique and desire.

The education of the indigenous peoples in the eighteenth and nineteenth centuries was one of the main civilising projects of colonialism and acts as a site of how language and knowledge form hybridised states. For example, one of the first acts in New Zealand when the missionaries came in 1814 was to introduce an orthography in Māori and then translated the Bible. Māori sought literacy in large numbers. The missionaries relied heavily on the work of 'converted natives', or what Bhabha (1994) refers to as 'mimic men', as teachers in Māori communities. The bible, although translated into Māori, was still an English book that contained the signs and symbols of English culture. In this sense, it simultaneously became a representation of colonial authority. Whether the bible was in English or Māori it relies for its authority on the difference between Māori and English cultural practices. Although having been translated into Māori, the book became another text that was a hybrid, that is, "almost the same but not quite" (Bhabha 1994, p. 86). So while the 'mimics' repeated messages from the bible they themselves were not English—they embodied difference.

Nineteenth century education for Māori men and women was also premised on race. As Māori were seen to be primitive but educable to some degree, intellectual pursuits were largely not available in the curriculum in the native and missionary schools. For the most part, and there were very few exceptions, Māori children were taught English alongside the practical arts that included gardening, agriculture, carpentry cooking, sewing, house keeping, and laundry work, in order to make the girls good wives and the boys good farmers. To be hybrid did not afford you any better opportunities at this time, intellect was determined by how much 'white blood' a person had. Hence, Māori knowledge was excluded at school and the object of the civilising mission was to replace that knowledge with that of the colonisers. While education offered an intrinsic enabling relation between it and culture, its disabling relation was that Māori knowledge was replaced by what was seen as 'superior' knowledge. On returning to their home villages, the intermediaries found themselves in an uninhabitable zone of ambivalence that granted them neither identity nor difference. The mixing of previously distinct gene pools to form new 'crosses' shifted a balance of power by constructing new categories of meaning different from the old ones.

Importantly for this article, it is necessary to note that in settler (colonised) societies a ‘mixed blood’ person is the result of the productivity of colonial power. Bhabha (1994, p. 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 for a reformed recognisable Other. The discipline in ‘being seen’ is a site/sight of subjection and power. In arguing that one of the functions of colonialism was to produce ‘copies’ of the ‘original’, Bhabha (1994) argues that the colonial hybrid being a subject of difference did not reassure the coloniser of his primary status. Instead the ‘hybrid’ forms—Creole, pidgin, miscegenated children—were seen to embody threatening forms of perversion and degeneration. The following section discusses how traces of this historical construction of Māori women can erupt into the contemporary subjectivity of Māori women scientists.

Doubling the subject

The positive feature of hybridity is that the identity of the subject is always constructed through a negotiation of difference, and the presence of fissures, gaps and contradictions is not necessarily a sign of failure (Bhabha 1994). In its most radical form, subjectivity is not just the combination, accumulation, fusion or synthesis of various components into a material product, but from a variety of discourses relating to various (often physical) characteristics. For example, from an historical perspective, Māori women were objectified as irrational, backward and lazy which has been used to subjugate Māori women from the time of colonial contact. Conversely, to be a scientist is to be intelligent, rational and progressive, which suggests Māori women cannot be ‘scientists’. The idea of being a subject of ‘race’ is expressed by Frantz Fanon:

And then the occasion arose when I had to meet the white man’s eyes. An unfamiliar weight burdened me. [...] 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 ... (1967, pp. 110–112).

As Fanon suggests the stereotypical subject-positions simultaneously construct the ‘raced’ (and ‘sexed’) object and deconstruct the ‘raced’ (and ‘sexed’) subject. This suggests that ‘raced’ (and ‘sexed’) people 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 ‘raced’ women to imagine something they are not in order to deny it. This double process highlights a differentiation or ‘doubling’ of the subject—the subject that speaks and the subject that is spoken about. This creates an ambivalence that has implications for researching and understanding contemporary postcolonial subjectivity for the Māori women participating in science.

The splitting or doubling of the subject is where the subject shows ambivalence through occupying two or more places at once. In recognising the role of the ‘unconscious’ in the constitution of the subject I am incorporating a more complex, ambivalent, contradictory mode of representation. Subjectivity carries the idea of movement, an ongoing process of engagement, which often results in ambiguities, ambivalences, multiplicities, slipperiness, instability and perseverance (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). For example,

the youngest woman in the study proposed a performance of multiplicity when she 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.* (Donna)

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, p. 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 competing. However, it is important to emphasise 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 Māori woman scientist where Māori language had played no role in that identification to one where it did.

Poststructuralist accounts of subjectivity tend to privilege indeterminacy, fragmentation and a deferral of a 'self' and valorise 'difference' as the site of multiplicity and provisionality. However, for those subjects who are marked by 'race' and 'gender' these cannot be approached uncritically. Yamamoto argues that for subjects marked by 'race' and gender:

... 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, pp. 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? The suggestion is that the poststructuralist notion of the subject has been constructed from a position of Western dominant culture.

Frantz Fanon (1967, p. 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 for Fanon is provisional for the raced self and a continual process of reconstruction from 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. Bhabha (1994) also recognises that occupying multiple positions brings with it a form of disarticulation that makes the colonial subject difficult to place, and in the sense of being used as a colonial device of resistance, becomes an incalculable object. For racially marked and gendered subjects the body itself is a contested site of subjectivity.

Poststructuralist ideas of subjectivity rest mainly on theories of the self which, I argue, are inadequate for theorising indigenous peoples because there are implications of whakapapa (genealogy) for subjectivity—encompassing subjectivity across time and place, individually and collectively, and in imaginary and concrete ways. 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 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 ... 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. ... I am named after her. She went to university as a mature woman and did a few articles 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 [Maryanne’s illustrated book on New Zealand plants]. 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 went into science and had brought to the interview a partially written copy of her whakapapa that showed her lineage from these women. She 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, p. 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 emphasise 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 Āwhina 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.*

For Te Āwhina, just being Māori was an invitation to be part of a collective subject that gives us a bond of familiarity and comfort. Doris Sommer (1988) 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 colonised language that does not equate identity with individuality" (p. 111). 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.

The subject of science—Māori women scientists

The process of identity formation is premised on an exclusive boundary between them and us. The 'hybrid' is used in this article to describe a transgression of that boundary and what figures as a result of that—danger, loss and degeneration. This can lead to issues of desire as well. If the boundary is marked positively, in order to solicit exchange and inclusion, then the hybrid may yield strength and vitality. However, when vitality and strength is tethered to degeneracy and purity their values become tainted in the same way as Māori was seen to taint 'European' blood. As recalled by one of the women in the study when she was asked if she had 'Māori' in her, the question she was asked in the 1970s was 'did she have a touch of the tarbrush'.¹ Hence the conventional value of the hybrid is always positioned in relation to the value of purity, along the axes of inclusion and exclusion. In some circumstances hybridity is a place of ambivalence and mixed blessings.

¹ A common saying in the 1970s in Aotearoa New Zealand to mean 'do you have coloured blood'?

This section explores the subjectivity of Māori women scientists built from their ‘mixed blood’ ancestry and their subjectivity in terms of being scientists. For many of the women their subjectivity as scientists is always a managed process. They are often subjected to comments and insults attached to skin colour (brown and white) and their Māori names. These are the obvious targets of identification as Māori by others, such as teachers, co-workers, and communities (including Māori). The body and the language are the connectors—from the past to the present—they carry discourse. What then does it mean in terms of contemporary postcolonial subjectivity to be the ‘hybrid’ carrier when it comes to ‘race’ and language?

Skinny borders

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 (1988, p. 58) takes her cue from the literary author David Bradley’s *The Chaneyville Incident* where he muses over strategies to minimise the effect of race in “determining his destiny”. 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, yearned 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 poi² 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, p. xii) does something similar when she likens the interactions of mind and body to a “Möbius 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.

² Poi are used in dances. They are soft balls on the end of string and twirled to different beats.

[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, 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, p. 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—what Bhabha (1994, p. 86) has called “to mirror a recognisable Other”. In other words, you can take on or reflect those characteristics that you desire. However, Bhabha 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” (p. 86). Such is the discourse of mimicry. For Bhabha, mimicry 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 ‘normalised’ knowledges and disciplinary powers” (p. 86). The effect is that discursively mimicry has embedded in it an ambivalence that can operate between similarity and difference. For Jane and Marie, the ambivalence of mimicry was transformed into an uncertainty that ‘fixed’ their subjectivity as a “partial presence” (Bhabha 1994, p. 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.

The term ‘honorary white’ is most often a term associated with an ideology of pigmentocracy and attributed to groups of people who are not noticeably ‘dark’. However, as Trinh Minh-ha (1989, p. 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, p. 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 ‘inauthentially’ Māori and white at the same time.

Passing transgressions

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. 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, pp. 170–171). Passing means having ‘no body’ or even being disembodied.

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 Treaty³ [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

³ The Treaty of Waitangi. The Treaty of Waitangi was the founding settlement document between Māori and the British settlers. Descendants of British settlers are now known as Pākehā.

[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, pp. 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 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 having inadequate knowledge about the Treaty of Waitangi for her identity as Māori.

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. It acts as 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". Things are not that easy for Arihia in some Māori situations:

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.

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. 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.

An unnamed hybrid

In the Museo Nazionale Antropologia e Etnologia⁴ in Florence, Italy is a New Zealand Māori cloak thought to be collected, along with other items now held at the museum, on James Cook's third voyage to New Zealand in 1777 (Beever and Greeson 1995). The cloak has sat in the museum for the last two centuries labelled as ‘Seaweed cloak No. 42’. Māori cloaks in overseas museums today are not uncommon as they, along with many other displaced artefacts, bones and heads, are part of the Enlightenment science project's ‘worlding’ (Spivak 1984). They continue to help sustain a discourse of a romanticised, exotic and barbaric past. Traditionally Māori women wove the cloaks from the 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. This cloak was ‘re-discovered’ in the early 1990s by an Auckland museum curator who, on her return to New Zealand, brought back a fragment of the outer surface material and gave it to Maryanne, one of the Māori women scientists in my research study, for positive identification. She identified the dried fragment as *Polytrichadelphus magellanicus*⁵—a native moss. The Māori ‘Seaweed cloak No. 42’ in the Florence museum was a moss cloak.

⁴ The National Museum of Anthropology and Ethnology.

⁵ Beever and Greeson (1995) suggest Māori knew the *Polytrichum* moss, and probably the *Polytrichadelphus* as well, as ‘teterewhete’ and ‘totara’. Apparently the ‘totara’ tree is not unlike the foliage of polytrichaceous mosses.

In this narrative, which could emerge from many indigenous cultures world wide, Maryanne occupies an “undecidable enunciatory space where the culture’s authority is undone in colonial power” (Bhabha 1994, p. 136). She teaches the uncanny lesson of the double through her double inscription. Maryanne can return the ‘gaze’ of the colonial ‘scientists’ but not as a simple substitute. There has been a doubling of and a displacement from ‘the original’ resulting in disorientation. Who is the scientist? Who is the Māori woman? The Māori woman returns in the white coat and not as working on a brown cloak. Maryanne 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. 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. Maryanne represents and occupies an unnamed hybridity that moves beyond the original biological, and the more contemporary cultural, understanding.

In postcolonial theory the use of the term hybridity today raises questions about the relation between contemporary thinking and racial formulations of the past for indigenous communities. The hybrid in the sense used above 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, p. 112).

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, p. 112). Bhabha claims this produces an ambivalent space because the double evaluative vision—looking at each other—unsettles any singular authority on which the coloniser’s identity rests. He also claims it disturbs any hierarchical power sustained in the binary of ‘colonised and coloniser’. 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 because they no longer represent the essential characteristics that marked them as colonised.

Conclusion

The globalisation of imperialism, whose intentions were to create an integrated economic and colonial system and to impose unitary time on the world, was achieved at the cost of the dislocation of indigenous peoples and cultures. Indigenous communities of colonised lands who have a history of domination continue to work in the context of rupture and violation of their existence. The violence and corruption has affected language and knowledge, subjectivity and identity to the extent where they have become problematical. Given the extreme nature of the social and psychic upheavals generated by colonialism, it is no coincidence that many of the communities who have experienced the global changes at their most brutal are those same people who treat the populist, inclusive view of hybridity with ambivalence and as a source of danger or harm. However, the experience of displacement has also become a starting point for indigenous communities in understanding the parameters of belonging to the modern world. The emergence of ‘other

histories' or 'other knowledges' is synchronous with the radicalisation of notions of identity, history and language. This paradox challenges our conceptual framework for understanding issues of identity and culture and indigenous communities' engagement in schooling and curriculum.

There is no evidence that the global flow in images has a homological connection to transformations in social or cultural relationships. In other words, there is no evidence to argue that the images and narratives that denote a new global culture are connected to a global structure or that they are disconnected from earlier or older forms of identity. There is a disjuncture between the emergence of global images and the global stories of global subjects, and the material experiences of everyday life and survival. Global images cannot, and do not, substitute for material experiences even though they may be given to students of culture. Hybridity offers liberatory moments and spaces. For Bhabha the third space offers a place that is productive not merely reflective—this means new ways of being and innovative kinds of cultural meaning can be brought into existence. Hybrid identities can be the lubricant for easing cultural friction. However, living this idea of 'hybridity' is not just dependent on the 'choice' made by the subject, it is also about how others see you.

There is a notion that if one does not become hybrid one's culture may die, or that it is inevitable that change has to occur. This takes for granted the current political and economic order of the world. This in itself has inherent dangers for different groups. If you are an immigrant group it is about making the culture you have entered 'less alien' and to help make the home culture take notice. However, the extent to which this happens is controlled by the home culture. For indigenous communities that are dominated by another culture such hybridisation is often conceived of in terms of 'loss', and fuels feelings of further domination and assimilation. This article has argued that the subjectivity of the indigenous woman is much more complex when one looks at a discourse of hybridity that takes into account its historical past.

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