

*Te whakahē i ētahi pōhēhētanga
mō te reo Māori*

**Challenging some misconceptions
about the Māori language**

*Te Kauhau Tīmatanga a te Ahorangi
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HE MIHI

E te whakaminenga kua tae ā-tinana mai i te pō nei, tēnā koutou katoa, tae atu hoki ki ngā manuhiri kua takahi i te nuku o te whenua kia tatū mai ki konei i te pō nei, tēnā koutou katoa. Nei mātou i raro i te maru o ngā hapū o Ngāi Tahu. Nō reira, me mihi koutou e pupuri nei i te mana o tēnei takiwā. Tēnei te mihi atu ki ngā kaiurungi o Te Whare Wānanga nei, ki ngā pūkenga, ki ngā tāura, ki ngā ākongā, ki a koutou katoa o Te Tumu, kua mene mai i te pō nei, tēnā rawa atu koutou.

I runga i te kaupapa o tēnei pō, ka hoki ngā mahara ki aku kaiwhakaako, ki aku pou whirinaki, ki aku whakaruruhau o mua: ko Hoani Waititi tēnā, ko Te Rangianiwaniwa Rangihau tēnā, ko Ngoingoi Pēwhairangi tēnā, ko Erana Coulter tēnā. Kua ngaro atu rātou ki te kāpunipunitanga o te wairua, te wāhi e au ai te moe, engari ia ā rātou tohutohu kei te mau tonu; ō rātou whakaaro kua waiho mai hei ramaroa māku; ā rātou taonga ka mahue mai ānō he toka whatiwhati ngaru e kore e ngaro, e kore e wareware i a au, otirā i a tātou katoa i waimarie ki te uru ki raro i te maru o aua tāngata rongonui o te ao Māori. Tae atu anō hoki ki aku taituarā o ēnei rā. Nō reira, Te Wharehuia kōrua ko Te Ihorei, he aha ngā kupu māku hei mihi atu mō tā kōrua tautāwhi mai i te maha o ngā tau kua hipa. Nā koutou ko Tīmoti Kāretu, ko Te Rangihau mā te huarahi i para kia taea ai e au ētahi mahi mō te reo Māori te whakaoti. Kua taupuhipuhi tātou kia ora ai te reo rangatira nei.

Me i kore ake taku whānau kua noho hei tautoko mai i aku mahi i ngā tau huhua kua hipa, ahakoa tai tukituki, tai marino, kua kore au i konei i tēnei wā.

Nō reira, tēnā koutou katoa.

HE KŌRERO WHAKATAKI **INTRODUCTION**

My teaching and university career has focused on playing a part in ensuring that Māori language not only survives but returns to being a language used in a wide range of contexts and domains with an increasing number of fluent speakers. Because of this I will use this lecture to further promote the language, and in particular to challenge a few of the misconceptions that still exist about Māori, particularly those that are still present in this University.

Like many others, I have always maintained that a university should be a place where sound argument and scholarship should govern what we do. It should be an environment where bigotry and prejudice have no place. Unfortunately, since I have been at this University I have witnessed evidence to show that this ideal is not always achieved, especially in relation to the knowledge, culture and language of the indigenous people of this country.

Since my teaching career began some thirty-three years ago, there have been some exciting developments in the struggle for Māori to return to being an everyday language heard in a wide range of contexts. These developments include:

- Te Kōhanga Reo, Kura Kaupapa Māori, Wharekura and Wānanga using Māori as the communication medium;
- Māori radio stations;
- some Māori language programmes on television and the prospect of a Māori television channel;
- degrees taught entirely in Māori;
- the 1987 Māori Language Act which established Te Taura Whiri i te Reo Māori (the Māori Language Commission) and made Māori an official language of this country;
- teacher education programmes for staff in Māori language classes and Māori medium classes and schools;
- an increasing number of publications in Māori;
- and even a School of Māori Studies at the University of Otago.

Despite these important developments there is still much to do, including changing the attitudes of some New Zealanders.

He pōhēhētanga mō te reo me ngā tikanga Māori **Misconceptions about the Māori language and culture**

A belief that some New Zealanders hold that I wish to challenge this evening is the misconception that Māori is a language that cannot cope with the communication needs of the modern world. I wish to tackle this issue, firstly by discussing a few of the changes that the Māori language has undergone in the past to show that, like all living languages, Māori has adapted to and continues to accommodate the developments in technology and changes in the communication needs of its speakers. In doing this I will focus on some specific examples of language to illustrate the more general statements I will make.

Secondly, I will discuss briefly the linguistic evidence to show that the pursuit of excellence has always been an important value of Māori culture. There seems to be a view held by some people that Māori are willing to accept lower standards than non-Māori, but I will argue that there is strong cultural and linguistic evidence to show that aspiring to perfection has always been part of the Māori value system.

Finally, I will consider the benefits of bilingualism, especially in relation to Māori-medium education.

***TE WHANAKE O TE REO MĀORI I MUA ATU I TE TAENGA MAI O
TE PĀKEHĀ***
PRE-CONTACT DEVELOPMENTS IN THE MĀORI LANGUAGE

Every language is tied closely to the culture of the people who speak it. Māori language was certainly perfectly suited to the world of its speakers at the time of the first arrival of the Pākehā. It had adapted to the changes experienced in living in Aotearoa/New Zealand from the environment in Hawaiki and it continued to adapt to the new technology and culture brought by the colonists. William Colenso wrote in 1867, almost one hundred years after Cook's first visit, that he had never known an old Māori '(or a young one who knows his own language), ever to be at a loss accurately and minutely to describe whatever he wished of any new thing or transaction to his countrymen.'¹

Colenso was a Pākehā whose experience and knowledge of the language was such that he was able to make this statement with some authority. He emigrated to New Zealand in 1834 as a printer for the Church Missionary Society and is regarded as the founder of the printing industry in Aotearoa/New Zealand.² In the 1840s he travelled to many parts of Te Ika-a-Māui (the North Island) with Māori guides, often to places that Pākehā had not visited before. By this stage he had obviously developed an ability in the language and he was probably engaging with some Māori who had not been greatly affected by contact with Pākehā.

Where there are important aspects of a culture in which fine distinctions are required, a language will develop to cope with these. For example, in Māori society greenstone was, and is, a valued resource which was used for trade by Ngāi Tahu with northern tribes. As a result terms developed to describe the different varieties of greenstone.

Table 1
He momo pounamu
Some varieties of greenstone³

<i>tangiwai</i>	a translucent variety with streaks of white in the texture of the stone. Found at Piopiotahi (Milford Sound) and Te Wāi Pounamu (Greenstone Valley).
<i>kahurangi</i>	a light-green translucent variety, without flaws or spots. A highly valued variety.

<i>inanga</i>	a whitish or creamy-coloured variety, named after <i>inanga</i> (whitebait).
<i>tōtōweka</i>	a variety with large dark dots or streaks.
<i>kahotea</i>	dark-green with black spots.
<i>kawakawa</i>	olive-green and semitransparent resembling the leaves of the kawakawa shrub.
<i>kōkopu</i>	a variety like <i>tōtōweka</i> but with smaller regular dots like the freshwater fish of the same name.
<i>kokotangiwai</i>	a soft and brittle variety which has streaks of white in the texture of the stone, similar to <i>tangiwai</i> but of rougher appearance. Found at Piopiotahi (Milford Sound) and Te Wāi Pounamu (Greenstone Valley).
<i>pīpīwharau</i>	a white and green variety like the dappled breast plumage of the bird of the same name (shining cuckoo).
<i>raukaraka/karaka</i>	very dark-green variety, like the leaves of the karaka tree.
<i>aotea</i>	cloudy-white or blue-grey, like <i>ao tea</i> (white clouds).
<i>tongarewa/tongarere</i>	a semitransparent variety.
<i>kutukutu</i>	a speckled variety.
<i>auhunga</i>	a pale variety.

Note in Table 1 that sometimes names were used for things in nature that were similar in appearance to the particular type of greenstone, for example, *inanga*, *kawakawa*, *kōkopu*, *pīpīwharau*, *raukaraka/karaka* and *aotea*. Teone Tīkao of Ngāi Tahu has a different explanation for these names. An early canoe to Te Wai Pounamu (the South Island), called the *Tairea*, was wrecked on the Westland coast. Each member of the crew was turned into a different variety of greenstone which was named after him. Kokotangiwai was a woman on board and she and her children stayed at Piopiotahi (Milford Sound).⁴

Likewise, the kūmara was an important crop north of Horomaka (Banks Peninsula). Consequently there were at least fifty terms to describe the different varieties of kūmara. Colenso lists 47 Māori names of varieties of kūmara from northern and eastern tribes pointing out that the list was not exhaustive.⁵ His sources were three Māori from Te Tai Tokerau (Northland) and three from Te Tai Rāwhiti (East Coast).⁶ Best collected ninety-four names for varieties of kūmara but notes that these were collected from a number of different districts so it is possible that some were different names for the same varieties.⁷ Table 2 is an adaptation of Colenso's list.

Table 2
He momo kūmara
Some varieties of kūmara⁸

A. Varieties from Te Tai Tokerau – Pēwhairangi (Bay of Islands), Hokianga and Kaitaia

1. White-skin varieties, having white or whitish flesh

* *Toroamahoe, Māpua*

* *Monenehu*

Waniwani

Kawakawa

Maramawhiti

Pāuātaha
Pūrata
Kanawa
Maomao
Mengerangi has grooved sides
Torowhenua uniform size
Pane mealy dumpy sort
Toitoi

2. White skin varieties, having slightly reddish flesh

Pohutukawa
Kāuto
Hītara a prized variety

3. Red skin and flesh

Whakakumu
Toikahikatea
Kōreherehe grooved sides, prized sort
Taurāpunga a mealy sort
 * *Para-karaka*
Awangarua
Panahi

4. Dark purple skin and flesh

Makururangi
Kautowhau
Kengo
 * *Pokerekāhu* very dark throughout
 * *Anurangi*
Matakauri
Poranga dark claret flesh
Kaikākā very dark throughout

B. Varieties from Te Tai Rāwhiti – Hawkes Bay and East Coast (not including those from Te Tai Tokerau listed above and marked with an asterisk *)

Tūtaetara
Tokoū
Kawakawatawhiti
Kairorowhare
Hāwere
Paihau-kākā
Ngako-moa
Raumataki
Taputini
Māori
Pehu
Kāwau
Tūtanga
Kurararangi

<i>Pātea</i> <i>Kiokiorangi</i>

Colenso also lists 21 names for varieties of taro.⁹ Best gives a longer list of 45 names including Colenso's names as well as those from Williams' and Tregear's dictionaries and from John White's writings.¹⁰ Table 3 shows the names given by Colenso.

Table 3 <i>He momo taro</i> Some varieties of taro¹¹	
A. Varieties from Te Tai Tokerau – Pēwhairangi (Bay of Islands), Hokianga and Kaitaia	
* <i>Pongi</i>	one of the best varieties and having a pleasing scent.
* <i>Turitaka</i>	one of the best varieties and having a pleasing scent.
<i>Pōtango</i>	a very superior sort, greatly prized.
<i>Awanga</i>	a very abundant grower, and therefore prized.
<i>Wairuaārangi</i>	a sweet kind having a flesh of a peculiar pink tinge.
<i>Ngongoro</i>	a very large and prized sort.
<i>Mamaku</i>	a good kind which was usually eaten at <i>hahunga</i> ceremony (exhuming and scraping the bones of a <i>rangatira</i>).
<i>Haukopa</i>	a good kind which was usually eaten at <i>hahunga</i> ceremony.
<i>Tokotokohau</i>	a large kind used at <i>hākari</i> (feasts).
* <i>Kinakina</i>	used by men working together in large groups.
B. Varieties from Te Tai Rāwhiti – Hawkes Bay and East Coast (not including those from Te Tai Tokerau listed above and marked with an asterisk *)	
<i>Paeangaanga</i>	
<i>Kohuorangi</i>	a small red variety.
<i>Pātai</i>	
<i>Matatiti</i>	
<i>Takatakāpo</i>	
<i>Tautauamahei</i>	
<i>Kōareare</i>	a white-fleshed sort.
<i>Kākātaraheare</i>	a dark-fleshed variety with red leaf-stalks.
<i>Upokotiketike</i>	
<i>Uhikoko</i>	
<i>Uhirawenga</i>	

I have provided the terms for varieties of greenstone, kūmara and taro as examples to show how Māori had developed to accommodate the needs of its speakers by the time the first Pākehā arrived.

In another paper by Colenso he mentions that there were more than 40 Māori names for storm clouds¹² and more than 50 names for different varieties of *harakeke* (flax).¹³ Obviously these names for *harakeke* were created after coming to New Zealand. Modern weavers still distinguish the different varieties by name. Like *pounamu*, kūmara and taro, *harakeke* was an extremely important resource in the lives of Māori, hence the need to distinguish the different types.

It is sometimes claimed that indigenous languages, like Māori, are unsuited for scientific purposes. But if we look at this language domain it will become obvious that the language was perfectly adequate in aspects of science that were relevant to the culture and economics of the Māori in the early 19th Century. For example, as we have seen, North Island and northern South Island Māori cultivated kūmara, and in warmer areas taro and *uhi* (yam). As can be seen in Table 4, they had terms for a range of soil types, especially as these related to growing kūmara.

Table 4
He momo oneone
Soil types¹⁴

<i>oneone</i>	soil, earth (a general term)
<i>kenepuru, kerepuru</i>	silt, fresh alluvial deposit
<i>keretā, keretū</i>	heavy clay
<i>kerematua</i>	stiff clay
<i>kerewhenua</i>	yellow clay
<i>kirikiri</i>	gravel
<i>kōtae, kōtai</i>	alluvial soil
<i>kōtore</i>	white clay
<i>matapaia</i>	a clay which when baked hard was used as stone for cooking
<i>one-hanahana</i>	gravelly dark soil
<i>one-haruru</i>	sandy loam
<i>one-hunga</i>	alluvial soil, especially those of a mixture of sand and mud
<i>one-kōpuru</i>	a soil found in wet situations
<i>one-kōkopu</i>	gravelly soil
<i>one-kura</i>	poor, reddish soil
<i>one-mata</i>	dark fertile soil
<i>one-matua</i>	loam
<i>one-parakiwai, parakiwai</i>	silt
<i>one-paraumu, paraumu</i>	black fertile friable soil, humus
<i>one-parahuhu, parahua</i>	alluvium
<i>one-pākirikiri</i>	gravelly soil
<i>one-pū</i>	sand
<i>one-punga</i>	light spongy soil
<i>one-rua</i>	reddish pumiceous sand
<i>one-tai</i>	sandy soil
<i>one-takataka</i>	friable soil
<i>one-tea</i>	whitish sandy volcanic soil
<i>one-tuatara</i>	a stiff brown fertile soil
<i>pāhoahoa</i>	sterile land
<i>pangahu</i>	hard clay land
<i>taekai</i>	worn out soil
<i>taioa</i>	a white soil
<i>tātāhou</i>	virgin soil
<i>tenga kākāriki</i>	light coloured sandy soil
<i>tuatara wawata</i>	a crumbly friable brown soil
<i>uku</i>	white clay

If we turn to the world of astronomy, there was obviously an extensive body of knowledge of the celestial realm, only some of which survives.

Table 5	
<i>Te tātai arorangi</i>	
Astronomy¹⁵	
<i>āraitanga</i>	eclipse
<i>auahi-tūroa, marau, whetū-rere</i>	comet
<i>kāhui whetū, tātai whetū</i>	constellation
<i>matakōkiri</i>	meteor, 'falling star'
<i>Rongomai</i>	Haley's Comet
<i>tohunga kōkōrangī</i>	expert in the study of celestial bodies, astronomer
<i>whānau mārama, whānau ariki</i>	celestial bodies
<i>whetūao, whetū-mārama</i>	planet
<i>Ngā whetūao</i>	Planets
<i>Ao, Ao tūroa, Ao mārama, Taiao</i>	Earth
<i>Kōpū, Tāwera</i>	Venus as a morning star
<i>Kōpū-nui, Rangawhenua</i>	Jupiter
<i>Meremere, Meremere-tū-ahiahi</i>	Venus as an evening star
<i>Matawhero</i>	Mars
<i>Pareārau</i>	Saturn
<i>Takero, Whiro</i>	Mercury
<i>He kāhui whetū</i>	Some constellations
<i>Māhutonga, Te Taki-o-Autahi</i>	The Southern Cross
<i>Matakaheru, Te Kōkota</i>	Hyades
<i>Matariki, Te Huihui-o-Matariki,</i> <i>Tātai-o-Matariki</i>	Pleiades
<i>Ngā Pātari, Te Whakaruruhau</i>	The Magellan Clouds
<i>Pātari-rangi, Tīoreore</i>	Large Magellanic Cloud
<i>Pātari-kaihau, Tītakataka</i>	Small Magellanic Cloud
<i>Pūtahi-nui-o-Rehua,</i> <i>Kāhui Takurua</i>	Canis Major
<i>Tautoru</i>	Orion's belt
<i>Te Mangō-roa, Te Ikaroa, Te Ika-o-</i> <i>te-Rangi, Te Tāhu-o-te-rangi</i>	The Milky Way
<i>Te Pātiki, Te Rua-pātiki</i>	The Coalsack
<i>Te Waka o Tama-rereti, Uruao</i>	The canoe shape made up of the Tail of the Scorpion
<i>He whetū mārama</i>	Some important star names
<i>Autahi, Atutahi, Aotahi</i>	Canopus
<i>Kaiwaka</i>	Kaus Astralis
<i>Marere-o-tonga</i>	Achernar
<i>Ō-tama-rākau</i>	Fomalhaut
<i>Poutū-te-rangi</i>	Altair
<i>Puanga, Puanga-rua</i>	Rigel
<i>Puanga-hori</i>	Procyon

<i>Rehua, Rerehu</i>	Antares
<i>Ruawāhia</i>	Arcturus
<i>Takurua</i>	Sirius
<i>Taumata-kuku, Whetū-kura</i>	Aldebaran
<i>Te Kakau</i>	Regulus
<i>Wero-i-te-kokota</i>	a star in the Kāhui Takurua (Canis Major)
<i>Wero-i-te-ninihi</i>	a star in the Kāhui Takurua (Canis Major)
<i>Whānui</i>	Vega
<i>Whakaahu rangi</i>	Castor
<i>Whakaahu kerekere</i>	Pollux
<i>Whetū-kaupo</i>	Deneb
<i>Whiti-kaupeka</i>	Spica

While the stars are often grouped into constellations differently from European groupings, there was a thorough understanding of the movements of the stars and planets. Each of the lunar months of the Māori was heralded by the appearance of particular stars. There were some variations in the terminology for the lunar months and each of the days, or more correctly nights, of the month from *iwi* to *iwi*, but the information was based on careful observation and experience accumulated over centuries.

<i>Pipiri</i>	(May/June)	<i>Puanga/Puanga-rua</i> (Rigel), <i>Matariki</i> (Pleiades)
<i>Hōngongoi</i>	(July)	<i>Puanga-hori</i> (Procyon)
<i>Here-turi-kōkā</i>	(August)	<i>Whakaahu</i> (Castor)
<i>Mahuru</i>	(September)	<i>Te Kakau</i> (Regulus), <i>Autahi</i> (Canopus)
<i>Whiringa-a-nuku</i>	(October)	<i>Whitikaupeka</i> (Spica), <i>Puanga</i> (Rigel)
<i>Whiringa-a-rangi</i>	(November)	<i>Whakaahu</i> (Castor), <i>Rerehu</i> (Antares)
<i>Hakihea</i>	(December)	<i>Rehua</i> (Antares), <i>Kaiwaka</i> (Kaus Astralis)
<i>Kohi-tātea</i>	(January)	<i>Uruao</i> (Tail of the Scorpion), <i>Kaiwaka</i> (Kaus Astralis)
<i>Hui-tanguru</i>	(February)	<i>Poutū-te-rangi</i> (Altair), <i>Uruao</i> (Tail of the Scorpion)
<i>Poutū-te-rangi</i>	(March)	<i>O-tama-rākau</i> (Fomalhaut)
<i>Paenga-whāwhā</i>	(April)	<i>Whetū-kaupō</i> (Deneb), <i>Kaipō</i>
<i>Haratua</i>	(May)	<i>Whetū-kura</i> (Aldebaran), <i>Matariki</i> (Pleiades)

This astronomical knowledge was important for the division of time and the *maramataka* (the Māori calendar). Each night of the lunar month had its name, together with the knowledge about the suitability of a particular night for such things as planting crops, fishing, hunting birds, gathering wild crops and harvesting resources. The movement of the stars and constellations was also important in the sophisticated navigational system of Māori and other Polynesians. Of course, the language conveyed all this information.

There are many other aspects of the field of science that could be discussed where the knowledge of Māori was quite profound resulting from close observation of the environment. Hand in hand with this was the linguistic capability to convey that knowledge. Examples include the detailed terminology and knowledge about eels, fish and fishing; birds and their behaviour; the weather; and trees and their medicinal uses.

TE REO MĀORI I ROTO I TE AO HOU
THE ABILITY OF THE MĀORI LANGUAGE TO COPE WITH THE MODERN WORLD

With the many changes that took place in technology, religion and lifestyle when visitors and settlers began to arrive from Europe, the language needed to adapt to accommodate these, and it did just that.

One of the new foods that was introduced by Cook was the potato. Māori quickly adopted new words for the varieties of this new crop. According to Mohi Tūrei, the varieties introduced by Cook were called *taraka* and *waeruru*.¹⁶ Mohi Tūrei was the acknowledged Ngāti Porou authority of the East Coast on traditional lore in the latter part of the nineteenth and early twentieth centuries. Tūrei also lists other varieties introduced by later visitors from Europe. The names of potato varieties he listed were: *pāpaka*, *āniwaniwa*, *pārete*, *taewa*, *pokohinu*, *rīwai*, *parakōkako*, *rokeroke*, *apetaonga*, *huamangō*, *waiti*, *karamu* and *kapetana*, but in the article he wrote about this, he stated that there were many other names of the early potato varieties.¹⁷

Ngā kupu hou o te reo Māori
Lexical expansion in Māori

There are a number of ways in which new vocabulary was, and is, created in Māori.¹⁸

- As a result of the changes introduced by the colonists, many words were given new shades of meaning, for example, *parareka*, the horse-shoe fern whose large starchy rhizome was cultivated and eaten, is still used by Ngāti Porou as their word for the potato, because of its similarity to the traditional food. Likewise, *mōwhiti/mōhiti*, which meant a ring or hoop, is used for spectacles, *ngā mōwhiti/ngā mōhiti*. Giving new meanings to existing words is a process used in all languages. Some of the names for varieties of greenstone, *kūmara* and taro given earlier are examples of this process being used in pre-European times. There are many other examples from classical and modern Māori that could be used to illustrate this point.
- A second way that the lexical bank is expanded is by translating concepts, a process known as loan translation or calquing. An example is *pāpara kāuta* for public house or pub. In this particular example the word *pāpara* is a loanword from the English word public, while *kāuta* is from Māori meaning cooking shed, house or shack.
- A third way that new words were and are created is by joining or juxtaposing two established words. There are many examples of this from classical Māori, for example,

<i>kī taurangi</i>	to promise, pledge	<i>taurangi</i>	incomplete, unfulfilled, unsatisfied)
	(<i>kī</i> to say, saying		
<i>wahahuka</i>	boasting, bombastic		

	(<i>waha</i> mouth	<i>huka</i> foam, froth)
<i>kirikā</i>	fever	
	(<i>kiri</i> skin	<i>kā</i> to take fire, burn)
<i>paekura</i>	lost property	
	(<i>pae</i> to lie across, be cast ashore	<i>kura</i> treasure)

- The addition of a prefix or suffix in a prescribed way is another common method to generate words in Māori, for example,

a. By the addition of the causative prefix *whaka-* and its short form *whā-* (to make)

<u><i>whakamate</i></u>	to put to death	(from <i>whaka-</i> to make + <i>mate</i> be dead)
<u><i>whakatū</i></u>	to erect, set up	(from <i>whaka-</i> to make + <i>tū</i> to stand, erect)
<u><i>whakaatu</i></u>	to point out, show	(from <i>whaka-</i> to make + <i>atu</i> direction away)
<u><i>whāngote</i></u>	to breast feed	(from <i>whā-</i> to make + <i>ngote</i> to suck the breast)
<u><i>whātoro</i></u>	to stretch out, touch	(from <i>whā-</i> to make + <i>toro</i> to stretch forth, extend)

b. By the addition of the agentive prefix *kai-* (the person who) to transitive verbs

<u><i>kaikōrero</i></u>	speaker	(from <i>kai-</i> the person who + <i>kōrero</i> to speak, talk)
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c. By the addition of one of the nominalising suffixes *-nga*, *-tanga*, etc. (i.e. to turn the verb into a noun)

<u><i>hokinga</i></u>	return	(from <i>hoki</i> to return + <i>-nga</i>)
<u><i>whakaaturanga</i></u>	show, exhibition	(from <i>whakaatu</i> to show + <i>-ranga</i>)
<u><i>tangihanga</i></u>	period of grieving	(from <i>tangi</i> to weep over, mourn + <i>-hanga</i>)

- Once European visitors began to arrive in Aotearoa/New Zealand, many new words were created by borrowing from the new languages Māori came in contact with, most notably, but not exclusively, from English, for example, *hīmene* for hymn, *waina* for wine or grape, *mihinare* for missionary, *hōiho* for horse, and a host of others. Examples borrowed from other languages include *mīere* for honey from the French *miel*; *ture* for law from the Hebrew *torah*; and *whakawhetai* to express thanks from Tahitian.¹⁹

When two groups of people of different cultures and speaking different languages are in contact for a significant period of time it is inevitable that some bilingualism will occur. As one group becomes bilingual, borrowing of vocabulary from the second language takes place. As a result of this process modern spoken and written Māori has many words which have been adapted from non-Polynesian sources, and these have almost always been changed to suit the phonological rules and orthographic conventions of the Māori language.

In Aotearoa/New Zealand this process of adopting words from English into Māori and vice-versa has expanded the lexical bank of both languages.

Currently Māori Studies is collecting data on the loanwords used in the Māori language newspapers of the mid- and late-19th Century and the first half of the 20th Century. These are a rich source illustrating aspects of Māori language development. By mid-August this year, we had already collected 9,369 words with the related data for a dictionary of loanwords in Māori. Many of these loanwords are no longer used but others have been part of the language since early contact with Pākehā.

These different ways that Māori has developed new vocabulary are common in other languages as well, yet some belittle the language because it has borrowed words from other languages. Of course, they forget that English owes its richness to the fact that it has borrowed so extensively from a wide range of other languages, including Māori. Harry Orsman has included about 700 headword entries in *The Dictionary of New Zealand English* that have been borrowed from Māori.²⁰

In recent years there has been a trend by some Māori speakers and learners to reject borrowing from English, seemingly to keep the language pure, but this is also possibly to reject the language of the colonists and to counter the derogatory criticism about the language that I have just referred to. Borrowing is a normal language process. It is not something unique to Māori.

He āhuatanga hou o te reo Māori mai i te taenga mai o te Pākehā
Other post-colonial adaptations in Māori

As well as lexical expansion, there were other changes in the language resulting from contact with the new language, culture and technology of the colonists. One has only to read texts written in the early contact period and to compare them with modern texts to know that changes are not restricted to vocabulary items. As an example, I would like to discuss the Māori system of numeration, which underwent changes as a result of contact with the Pākehā system.

Te tatau Māori
The Māori system of numeration

Traditionally, Māori and other Polynesian people had a single or decimal system, a binary system and a vigesimal system of numeration, although Māori would have regarded this as one single system. The single, or decimal system is the one commonly used today because it was similar to that used by the colonists, but aspects of the other two systems persisted into the 20th century.

So we have the following decimal or single system commonly used today which will be thoroughly familiar to those who are speakers of Māori (Table 7).

Table 7 <i>Te tatau i ēnei rā</i> The modern decimal system	
1. <i>tahi</i>	2. <i>rua</i>
3. <i>toru</i>	4. <i>whā</i>

5. <i>rima</i>	6. <i>ono</i>
7. <i>whitu</i>	8. <i>waru</i>
9. <i>iwa</i>	10. <i>tekau</i>
11. <i>Tekau mā tahi</i> (10+1)	12. <i>Tekau mā rua</i> (10+2)
13. <i>Tekau mā toru</i> (10+3)	14. <i>Tekau mā whā</i> (10+4)
15. <i>Tekau mā rima</i>	16. <i>Tekau mā ono</i>
17. <i>Tekau mā whitu</i>	18. <i>Tekau mā waru</i>
19. <i>Tekau mā iwa</i>	20. <i>E rua tekau</i> (2x10)
21. <i>E rua tekau mā tahi</i> (2x10+1)	22. <i>E rua tekau mā rua</i> (2x10+2)
23. <i>E rua tekau mā toru</i> (2x10+3)	24. <i>E rua tekau mā whā</i> (2x10+4)
25. <i>E rua tekau mā rima</i>	26. <i>E rua tekau mā ono</i>
27. <i>E rua tekau mā whitu</i>	28. <i>E rua tekau mā waru</i>
29. <i>E rua tekau mā iwa</i>	30. <i>E toru tekau</i> (3x10)
31. <i>E toru tekau mā tahi</i> (3x10+1)	32. <i>E toru tekau mā rua</i> (3x10+2)
40. <i>E whā tekau</i> (4x10)	50. <i>E rima tekau</i> (5x10)
60. <i>E ono tekau</i> (6x10)	90. <i>E iwa tekau</i> (9x10)
100. <i>Kotahi rau</i>	101. <i>Kotahi rau mā tahi</i> (100+1)
102. <i>Kotahi rau mā rua</i> (100+2)	110. <i>Kotahi rau, kotahi tekau</i> (100+10)
111. <i>Kotahi rau, kotahi tekau mā tahi</i> (100+10+1)	115. <i>Kotahi rau, kotahi tekau mā rima</i>
120. <i>Kotahi rau, e rua tekau</i>	121. <i>Kotahi rau, e rua tekau mā tahi</i>
199. <i>Kotahi rau, e iwa tekau mā iwa</i>	200. <i>E rua rau</i>
201. <i>E rua rau mā tahi</i>	202. <i>E rua rau mā rua</i>
250. <i>E rua rau, e rima tekau</i>	300. <i>E toru rau</i>
400. <i>E whā rau</i>	500. <i>E rima rau</i>
1000. <i>Kotahi mano</i>	1001. <i>Kotahi mano mā tahi</i>
1100. <i>Kotahi mano, kotahi rau</i>	1101. <i>Kotahi mano, kotahi rau mā tahi</i>
1102. <i>Kotahi mano, kotahi rau mā rua</i>	1906. <i>Kotahi mano, e iwa rau ma ono</i>
2000. <i>E rua mano</i>	3000. <i>E toru mano</i>
10,000. <i>Kotahi tekau mano</i>	100,000. <i>Kotahi rau mano</i>
1,000,000. <i>Kotahi miriona</i>	

However, the numerical system at the time of early Pākehā contact was a little more complicated. In a paper read by Elsdon Best before the Auckland Institute in 1906, he delves in some detail into the Māori system of numeration.²¹ Firstly, the traditional single method of counting had significant differences, as can be seen in Table 8.

Table 8	
<i>Te tatau takitahi o mua</i>	
The traditional single method of numeration²²	
1. <i>Kotahi</i>	2. <i>E rua</i>
3. <i>E toru</i>	4. <i>E whā</i>
5. <i>E rima</i>	6. <i>E ono</i>
7. <i>E whitu</i>	8. <i>E waru</i>
9. <i>E iwa</i>	10. <i>Ngahuru</i>
11. <i>Ngahuru mā tahi</i> (10+1)	12. <i>Ngahuru mā rua</i> (10+2)
13. <i>Ngahuru mā toru</i> (10+3)	14. <i>Ngahuru mā whā</i> (10+4)
15. <i>Ngahuru mā rima</i> (10+5)	16. <i>Ngahuru mā ono</i> (10+6)
17. <i>Ngahuru mā whitu</i> (10+7)	18. <i>Ngahuru mā waru</i> (10+8)
19. <i>Ngahuru mā iwa</i> (10+9)	20. <i>Tekau</i>

21. <i>Tekau mā tahi</i> (20+1)	22. <i>Tekau mā rua</i> (20+2).
23. <i>Tekau mā toru</i> (20+3)	24. <i>Tekau mā whā</i> (20+4)
25. <i>Tekau mā rima</i> (20+5)	26. <i>Tekau mā ono</i> (20+6)
27. <i>Tekau mā whitu</i>	28. <i>Tekau mā waru</i>
29. <i>Tekau mā iwa</i> (20+9)	30. <i>Tekau mā hangahuru</i> (20+10)
31. <i>Tekau, ngahuru mā tahi</i> (20+10+1)	32. <i>Tekau, ngahuru mā rua</i> (20+10+2)
33. <i>Tekau, ngahuru mā toru</i> (20+10+3)	34. <i>Tekau, ngahuru mā whā</i> (20+10+4)
35. <i>Tekau, ngahuru mā rima</i>	36. <i>Tekau, ngahuru mā ono</i>
37. <i>Tekau, ngahuru mā whitu</i>	38. <i>Tekau, ngahuru mā waru</i>
39. <i>Tekau, ngahuru mā iwa</i> (20+10+9)	
40. <i>Hokorua tōpū</i> (ten twos doubled) or <i>hokowhā takitahi</i>	
41. <i>Hokorua mā tahi</i> or <i>hokorua, kotahi te tūmā</i>	
42. <i>Hokorua mā rua</i> or <i>hokorua, e rua te tūmā</i>	
43. <i>Hokorua mā toru</i> or <i>hokorua, e toru te tūmā</i>	
44. <i>Hokorua mā whā</i> or <i>hokorua, e whā te tūmā</i>	
45. <i>Hokorua mā rima</i> or <i>hokorua, e rima te tūmā</i>	or simply <i>hokorua makere</i>
46. <i>Hokorua mā ono</i> or <i>hokorua, e ono te tūmā</i>	
47. <i>Hokorua mā whitu</i> or <i>hokorua, e whitu te tūmā</i>	
48. <i>Hokorua mā waru</i> or <i>hokorua, e waru te tūmā</i>	
49. <i>Hokorua mā iwa</i> or <i>hokorua, e iwa te tūmā</i>	
50. <i>Hokorua, ngahuru takitahi</i> (40+10)	
51. <i>Hokorua, ngahuru mā tahi</i> (40+10+1)	
52. <i>Hokorua, ngahuru mā rua</i> (40+10+2)	
53. <i>Hokorua, ngahuru mā toru</i>	
54. <i>Hokorua, ngahuru mā whā</i>	or <i>hokorua makere</i> – sometimes
55. <i>Hokorua, ngahuru mā rima</i>	<i>te tūmā</i> (the excess) added to terms
56. <i>Hokorua, ngahuru mā ono</i>	for 50 to 59 inclusive
57. <i>Hokorua, ngahuru mā whitu</i>	
58. <i>Hokorua, ngahuru mā waru</i>	
59. <i>Hokorua, ngahuru mā iwa</i>	
60. <i>Hokotoru tōpū</i> , or <i>hokoono takitahi</i>	
61. <i>Hokotoru mā tahi</i> or <i>hokotoru, kotahi te tūmā</i>	
62. <i>Hokotoru mā rua</i> or <i>hokotoru, e rua te tūmā</i>	
63. <i>Hokotoru mā toru</i> or <i>hokotoru, e toru te tūmā</i>	
64. <i>Hokotoru mā whā</i> or <i>hokotoru, e whā te tūmā</i>	
65. <i>Hokotoru mā rima</i> or <i>hokotoru, e rima te tūmā</i>	or <i>hokotoru makere</i>
66. <i>Hokotoru mā ono</i> or <i>hokotoru, e ono te tūmā</i>	
67. <i>Hokotoru mā whitu</i> or <i>hokotoru, e whitu te tūmā</i>	
68. <i>Hokotoru mā waru</i> or <i>hokotoru, e waru te tūmā</i>	
69. <i>Hokotoru mā iwa</i> or <i>hokotoru, e iwa te tūmā</i>	
70. <i>Hokotoru, ngahuru takitahi</i>	
71. <i>Hokotoru, ngahuru mā tahi</i>	
72. <i>Hokotoru, ngahuru mā rua</i>	
73. <i>Hokotoru, ngahuru mā toru</i>	
74. <i>Hokotoru, ngahuru mā whā</i>	
75. <i>Hokotoru, ngahuru mā rima</i>	
76. <i>Hokotoru, ngahuru mā ono</i>	
77. <i>Hokotoru, ngahuru mā whitu</i>	
78. <i>Hokotoru, ngahuru mā waru</i>	
79. <i>Hokotoru, ngahuru mā iwa</i>	
80. <i>Hokowhā tōpū</i> , or <i>hokowaru takitahi</i>	

Sometimes the words *te tūmā* (the excess) are used after each term; or *hokotoru tūmā* (60 and the excess) used for any number from 61 to 79, or *hokotoru makere* is used.

81. <i>Hokowhā mā tahi</i> or <i>hokowhā, kotahi te tūmā</i>	<p><i>Te tūmā</i> sometimes added or <i>hokowhā tūmā</i> (or <i>makere</i>, or <i>ngahoro</i>) used for any number from 81 to 99.</p>
82. <i>Hokowhā mā rua</i> or <i>hokowhā, e rua te tūmā</i>	
83. <i>Hokowhā mā toru</i> or <i>hokowhā, e toru te tūmā</i>	
84. <i>Hokowhā mā whā</i> or <i>hokowhā, e whā te tūmā</i>	
85. <i>Hokowhā mā rima</i> or <i>hokowhā, e rima te tūmā</i>	
86. <i>Hokowhā mā ono</i> or <i>hokowhā, e ono te tūmā</i>	
87. <i>Hokowhā mā whitu</i> or <i>hokowhā, e whitu te tūmā</i>	
88. <i>Hokowhā mā waru</i> or <i>hokowhā, e waru te tūmā</i>	
89. <i>Hokowhā mā iwa</i> or <i>hokowhā, e iwa te tūmā</i>	
90. <i>Hokowhā, ngahuru takitahi</i>	
91. <i>Hokowhā, ngahuru mā rua</i>	
94. <i>Hokowhā, ngahuru mā whā</i>	
95. <i>Hokowhā, ngahuru mā rima</i>	
96. <i>Hokowhā, ngahuru mā ono</i>	
97. <i>Hokowhā, ngahuru mā whitu</i>	
98. <i>Hokowhā, ngahuru mā waru</i>	
99. <i>Hokowhā, ngahuru mā iwa</i>	
100. <i>Hokorima tōpū</i> or <i>kotahi rau takitahi</i>	
101. <i>Hokorima mā tahi</i> or <i>hokorima, kotahi te tūmā</i> or <i>kotahi rau, kotahi</i>	
102. <i>Hokorima mā rua</i> or <i>hokorima, e rua te tūmā</i> or <i>kotahi rau, e rua</i>	
103. <i>Hokorima mā toru</i> or <i>hokorima, e toru te tūmā</i> or <i>kotahi rau, e toru</i>	
104. <i>Hokorima mā whā</i> or <i>hokorima, e whā te tūmā</i> or <i>kotahi rau, e whā</i>	
105. <i>Hokorima mā rima</i> or <i>hokorima, e rima te tūmā</i> or <i>kotahi rau, e rima</i>	
106. <i>Hokorima mā ono</i> or <i>hokorima e ono te tūmā</i> or <i>kotahi rau, e ono</i>	
107. <i>Hokorima mā whitu</i> or <i>hokorima e whitu te tūmā</i> or <i>kotahi rau, e whitu</i>	
108. <i>Hokorima mā waru</i> or <i>hokorima e waru te tūmā</i> or <i>kotahi rau, e waru</i>	
109. <i>Hokorima mā iwa</i> or <i>hokorima, e iwa te tūmā</i> or <i>kotahi rau, e iwa</i>	
110. <i>Hokorima, ngahuru takitahi te tūmā</i>	
111. <i>Hokorima, ngahuru mā tahi te tūmā</i>	
120. <i>Hokoono tōpū</i> or <i>kotahi rau mā rua</i>	
121. <i>Hokoono mā tahi</i> or <i>hokoono, kotahi te tūmā</i>	
122. <i>Hokoono mā rua</i> or <i>hokoono, e rua te tūmā</i>	
140. <i>Hokowhiti tōpū</i> or <i>kotahi rau mā whā</i>	
160. <i>Hokowaru tōpū</i> or <i>kotahi rau mā ono</i>	
190. <i>Hokoiwa, ngahuru takitahi</i> or <i>kotahi rau mā iwa</i>	
191. <i>Hokoiwa, ngahuru mā tahi</i>	
199. <i>Hokoiwa, ngahuru mā iwa</i>	
200. <i>E rua rau (takitahi)</i>	
201 to 219. <i>E rua rau tūmā</i> (The excess number stated if necessary).	
220. <i>E rua rau, hokorua takitahi</i> or <i>e rua rau mā rua</i>	
221. <i>E rua rau, hokorua mā tahi te paepae</i> (or <i>tūmā</i>)	
230. <i>E rua rau, hokotoru takitahi te paepae</i> (i.e. 200, 30 once told the excess) or <i>e rua rau mā toru</i>	
240. <i>E rua rau hokowhā takitahi te paepae</i> or <i>e rua rau mā whā</i>	
250. <i>E rua rau hokorima takitahi te paepae</i> or <i>e rua rau mā rima</i>	
260. <i>E rua rau hokoono takitahi te paepae</i> or <i>e rua rau mā ono</i>	
300. <i>E toru rau (takitahi)</i>	
400. <i>E whā rau (takitahi)</i>	
1000. <i>Kotahi mano</i>	

Notice that *ngahuru* (or sometimes *hangahuru*) was used for ten. *Ngahuru* is not unknown in modern Māori but is unusual, although it is commonly used for autumn because the tenth month of the Māori calendar corresponded to that season of the year. As we know, in counting, *ngahuru* has been replaced by *tekau*, which was used in pre-European times to denote twenty.²³ *Tekau* seems to have been part of the binary system which I will talk about shortly. Like this traditional Māori system, in some other Polynesian languages *tekau*, or its cognate forms, usually means twenty and *ngahuru*, or *hangahuru*, or their cognate forms, are used for ten.²⁴

The second thing to note is the use of *hoko-* as a prefix to numbers. It would seem that *hoko-* meant ten, so that, for example, *hokowhā takitahi* would mean forty. However, if *tōpū* was added to the number instead of *takitahi* it would double the number so *hokowhā tōpū* would be twice forty, i.e. eighty. Often *tōpū* was omitted so that *hokowhā* on its own would mean eighty.²⁵ Thus *hoko-* is a prefix that was used with the numerals from 1 to 9, usually to signify 20 times the number, for example, *hokotoru* (sixty).²⁶ Thus with the traditional system there was a single term for ten (*ngahuru*), twenty (*tekau*), forty (*hokorua*), sixty (*hokotoru*), eighty (*hokowhā*), and so on up to 180 (*hokoiwa*), but the numbers in between were made up of combinations of the words from one to twenty.

Hokowhitu is still used for an army, band or complement of men, probably because that was regarded as the ideal size of a *tauā* (war party). This reckoning by twenties is sometimes called the vigesimal system. It was used in some other languages, including French.

The third thing to note about this traditional system of counting is the use of the word *tūmā* to mean an odd number in excess, for example, *hokorua, kotahi te tūmā* (forty and one odd one). Or one might simply say *hokorua makere* (forty odd).²⁷ Other words to indicate an odd number or surplus include: *paepae, rerenga, kehe, taukehe, tautahi, tauhara* and *tauwhara*.

It would seem that an additional pre-European system, which I have touched on already, was based on counting by pairs, particularly for game, etc. by using *pū* and *tōpū*,²⁸ for example, *ka rua pū* (two brace, i.e. four); *kotahi rau e whitu tekau tōpū* (two hundred and forty). Table 9 shows this binary system of counting.

Table 9
Te tatau tōpū
The binary or dual system of counting game, fish, etc.²⁹

2. <i>Ka tahi pū</i> (1 brace or pair)	3. <i>Ka tahi pū tautahi</i> (1 brace and an odd one)
4. <i>Ka rua pū</i> (2 brace)	5. <i>Ka rua pū tautahi</i> (2 brace and an odd one)
6. <i>Ka toru pū</i> (3 brace)	7. <i>Ka toru pū tautahi</i>
8. <i>Ka whā pū</i> (4 brace)	9. <i>Ka whā pū tautahi</i>
10. <i>Ka rima pū</i>	11. <i>Ka rima pū tautahi</i>
12. <i>Ka ono pū</i>	13. <i>Ka ono pū tautahi</i>
14. <i>Ka whitu pū</i>	15. <i>Ka whitu pū tautahi</i>
16. <i>Ka waru pū</i>	17. <i>Ka waru pū tautahi</i>
18. <i>Ka iwa pū</i>	19. <i>Ka iwa pū tautahi</i>

- | | |
|--|---|
| 20. <i>Ngahuru pū</i> (10 brace) | |
| 21. <i>Ngahuru pū, tautahi</i> (10 brace and an odd one) | |
| 22. <i>Ngahuru pū kotahi pū</i> (10 brace, one brace) | |
| 23. <i>Ngahuru pū kotahi pū tautahi</i> (10 brace, 1 brace and an odd one) | |
| 24. <i>Ngahuru pū, e rua pū</i> (10 brace, 2 brace) | |
| 25. <i>Ngahuru pū, e rua pū tautahi</i> (10 brace, 2 brace odd one) | |
| 26. <i>Ngahuru pū, e toru pū</i> | 27. <i>Ngahuru pū, e toru pū tautahi</i> |
| 28. <i>Ngahuru pū, e whā pū</i> | 29. <i>Ngahuru pū, e whā pū tautahi</i> |
| 30. <i>Ngahuru pū, e rima pū</i> | 31. <i>Ngahuru pū, e rima pū tautahi</i> |
| 32. <i>Ngahuru pū, e ono pū</i> | 33. <i>Ngahuru pū, e ono pū tautahi</i> |
| 34. <i>Ngahuru pū, e whitu pū</i> | 35. <i>Ngahuru pū, e whitu pū tautahi</i> |
| 36. <i>Ngahuru pū, e waru pū</i> | 37. <i>Ngahuru pū, e waru pū tautahi</i> |
| 38. <i>Ngahuru pū, e iwa pū</i> | 39. <i>Ngahuru pū, e iwa pū tautahi</i> |
| 40. <i>Hokorua</i> | 41. <i>Hokorua, tautahi</i> |
| 42. <i>Hokorua, kotahi pū</i> | 43. <i>Hokorua, kotahi pū tautahi</i> |
| 44. <i>Hokorua, e rua pū</i> | 45. <i>Hokorua, e rua pū tautahi</i> |
| 46. <i>Hokorua, e toru pū</i> | 47. <i>Hokorua, e toru pū tautahi</i> |
| 48. <i>Hokorua, e whā pū</i> | 49. <i>Hokorua, e whā pū tautahi</i> |
| 50. <i>Hokorua, e rima pū</i> | 51. <i>Hokorua, e rima pū tautahi</i> |
| 52. <i>Hokorua, e ono pū</i> | 53. <i>Hokorua, e ono pū tautahi</i> |
| 54. <i>Hokorua, e whitu pū</i> | 55. <i>Hokorua, e whitu pū tautahi</i> |
| 56. <i>Hokorua, e waru pū</i> | 57. <i>Hokorua, e waru pū tautahi</i> |
| 58. <i>Hokorua, e iwa pū</i> | 59. <i>Hokorua, e iwa pū tautahi</i> |
| 60. <i>Hokotoru</i> | 61. <i>Hokotoru, tautahi</i> |
| 62. <i>Hokotoru, kotahi pū</i> | 63. <i>Hokotoru, kotahi pū tautahi</i> |
| 64. <i>Hokotoru, e rua pū</i> | 65. <i>Hokotoru, e rua pū tautahi</i> |
| 66. <i>Hokotoru, e toru pū</i> | 67. <i>Hokotoru, e toru pū tautahi</i> |
| 68. <i>Hokotoru, e whā pū</i> | 69. <i>Hokotoru, e whā pū tautahi</i> |
| 70. <i>Hokotoru, e rima pū</i> | 71. <i>Hokotoru, e rima pū tautahi</i> |
| 72. <i>Hokotoru, e ono pū</i> | 73. <i>Hokotoru, e ono pū tautahi</i> |
| 74. <i>Hokotoru, e whitu pū</i> | 75. <i>Hokotoru, e whitu pū tautahi</i> |
| 76. <i>Hokotoru, e waru pū</i> | 77. <i>Hokotoru, e waru pū tautahi</i> |
| 78. <i>Hokotoru, e iwa pū</i> | 79. <i>Hokotoru, e iwa pū tautahi</i> |
| 80. <i>Hokowhā</i> | 81. <i>Hokowhā tautahi</i> |
| 82. <i>Hokowhā, kotahi pū</i> | 83. <i>Hokowhā, kotahi pū tautahi</i> |
| 84. <i>Hokowhā, e rua pū</i> | 85. <i>Hokowhā, e rua pū tautahi</i> |
| 86. <i>Hokowhā, e toru pū</i> | 87. <i>Hokowhā, e toru pū tautahi</i> |
| 88. <i>Hokowhā, e whā pū</i> | 89. <i>Hokowhā, e whā pū tautahi</i> |
| 90. <i>Hokowhā, e rima pū</i> | 91. <i>Hokowhā, e rima pū tautahi</i> |
| 92. <i>Hokowhā, e ono pū</i> | 93. <i>Hokowhā, e ono pū tautahi</i> |
| 94. <i>Hokowhā, e whitu pū</i> | 95. <i>Hokowhā, e whitu pū tautahi</i> |
| 96. <i>Hokowhā, e waru pū</i> | 97. <i>Hokowhā, e waru pū tautahi</i> |
| 98. <i>Hokowhā, e iwa pū</i> | 99. <i>Hokowhā, e iwa pū tautahi</i> |
| 100. <i>Hokorima</i> | 101. <i>Hokorima tautahi</i> |
| 102. <i>Hokorima kotahi pū</i> | 110. <i>Hokorima e rima pū</i> |
| 120. <i>Hokoono</i> | 121. <i>Hokoono tautahi</i> |
| 122. <i>Hokoono kotahi pū</i> | 140. <i>Hokowhiti</i> |
| 160. <i>Hokowaru</i> | 180. <i>Hokoīwa</i> |
| 200. <i>Kotahi rau</i> (i.e. 100 brace, <i>pū</i> understood) | 210. <i>Kotahi rau e rima pū</i> |
| 220. <i>Kotahi rau ngahuru pū</i> | 240. <i>Kotahi rau hokorua</i> |
| 260. <i>Kotahi rau hokotoru</i> | 280. <i>Kotahi rau hokowhā</i> |

300. <i>Kotahi rau hokorima</i>	301. <i>Kotahi rau tautahi</i>
302. <i>Kotahi rau kotahi pū</i>	
400. <i>E rua rau</i> (i.e. 200 brace, or pairs, <i>pū</i> understood)	
401. <i>E rua rau tautahi</i>	402. <i>E rua rau kotahi pū</i>
403. <i>E rua rau kotahi pū tautahi</i>	500. <i>E toru rau hokorima</i>
600. <i>E toru rau</i>	700. <i>E toru rau hokorima</i>
800. <i>E whā rau</i>	900. <i>E whā rau hokorima</i>
1000. <i>E rima rau</i> (i.e. 500, <i>pū</i> understood)	2000. <i>Kotahi mano</i> (<i>pū</i> understood)

Counting birds, fish, etc. would be done by saying *ka tahi pū* (one brace, i.e. two), *ka rua pū* (two brace, i.e. four), *ka toru pū* (three brace, i.e. six), and so on up to *ngahuru pū* (ten brace, i.e. twenty).³⁰ *Ka rua pū, tautahi* would denote five, i.e. two brace and an odd one. Twenty-three would be *ngahuru pū, kotahi pū, tautahi*, and so on.

The terms for an odd number given earlier were also used, including *tauvara*, *kehe*, *taukehe* and *tautahi*, for example, *kotahi pū, ka rua pū, taukehe* (one brace, two brace, and an odd one); *e waru pū, tautahi* (eight pairs and an odd one, i.e. nine).³¹

In Atanatiu Kairangi's text published in 1913 in the Māori newspaper *Te Pipiwharaura*, recounting the history of Te Rauparaha, Ngāti Toa and their allies' migration from their original territories in the north to the southern North Island and the northern South Island, he uses all three systems, as illustrated in the following quote (underlining added):³²

Ka haere mai nga rangatira o Ngapuhi me Ngatiwhatua, ka tae mai ki Kawhia, ka uru a Te Rauparaha, me Te Rako, me Te Pehi, me era atu rangatira o Ngatitua, hokowhitu topu ratou. Ko Ngapuhi kotahi rau topu. . . E rua nga pa horo o Taranaki i mate i taua ope o Ngapuhi ratou ko Ngati Toa me Ngatiwhatua.³³
(The chiefs of Ngā Puhī and Ngāti Whātua travelled to Kāwhia where Te Rauparaha, Te Rako, Te Pēhi and other chiefs of Ngāti Toa joined them, 280 of them and 200 Ngā Puhī. . . Two pā of Taranaki fell when they were defeated by the combined Ngā Puhī, Ngāti Toa and Ngāti Whātua force.)

As this example shows, the distinction between the three numerical systems was probably not made by speakers of the language, but formed one system. It should also be noted at this point that there were probably regional differences in aspects of the numerical system. For example, Ray Harlow in his word-list of South Island Māori states that *hoko-* meant twenty and the attached number was a multiple of ten. With this system *hokotoru*, for example, would be fifty, i.e. 20+(3x10), and *hokorima* would be seventy, i.e. 20+(5x10).³⁴

Other refinements of numeration that are still used today include the following:

- The prefix *toko-* is used with numbers from two to nine, *hia?* and *maha* when speaking of people, for example, *tokohia?* (how many people), *tokowhā* (four people).
- The prefix *tua-* is attached to numbers from one to nine to form ordinals, for example, *tuawhitu* (seventh). Although *tua-* is not used with *tekau* and numbers above nine in modern Māori, it was used with *ngahuru*, the old word for ten (i.e. *tuangahuru* tenth).

- The definite article *te* is also used before numbers for ordinal numbers, for example, *te rima* the fifth, *te tekau* the tenth.
- The prefix *taki-* is added to numbers from one to nine to give numbers a distributive force, for example, *takitahi* (singly), *takirua* (in pairs), *takiwhā* (in fours).
- *Whaka-* (to make) is prefixed to numbers, for example, *whakakotahi* (to make into one, i.e. unite), *whakatekau* (to group into ten, to tithe).
- The particle *kia* is used before numbers when asking and stating how many things are wanted, for example, *Kia hia ngā aihikirīmi?* (How many ice-creams do you want?) *Kia whā.* (We want four.)
- When stating how many things there are the particle *e* precedes the number and the interrogative *hia* when the first word of the number has only one or two vowels, for example, *E hia ngā whare?* (How many houses are there?) *E waru.* (There are eight.)

This rather detailed discussion of the traditional Māori system of numeration reveals that it was a sophisticated one which has been modified to correspond more closely to the English system of counting.

By focusing on the ways Māori created new vocabulary and on the changes that the traditional Māori system of numeration has undergone, what I have tried to show is that, like all living languages, Māori has adapted to the changing communication needs placed on it as the lifestyle and culture of Māori have evolved. This does not just apply to lexical changes and expansion, but in other ways as well.

Once English became the language of the school and Māori was not required to cope with developments in certain domains of use that belonged to the school and higher learning, then its adaptation slowed or ceased to develop in those areas. Mathematics and modern science are examples. However, in the last ten years these subjects have begun to be taught in Māori in Māori-medium classes, so the creation of vocabulary to cope in these subjects has taken on a new impetus. Te Taura Whiri i te Reo Māori, the Māori Language Commission, has spearheaded this development in response to requests from schools, Māori speakers and learners, and translators.

The accusation is often made, particularly by some people who do not speak the language, that Māori is not able to cope with some domains of use in the modern world. It would be more correct to say that for about 120 years it was **not required** to cope with such areas of language as mathematics and modern science because in that time those subjects, and others, were always taught in English and are not normally part of everyday conversation. As we know, once English became the school medium in 1867, when the Native Schools Act decreed that English should be the only language used in the education of Māori children, the future of the language was threatened. Its status declined in the eyes of children. How could a language have status for children if it was not part of school life?

Many of you present here this evening will know that it is quite erroneous to say that Māori language is an inadequate medium to use in the modern world, yet it is a view that is still expressed by some New Zealanders, especially in this part of the country.

An example of an area of the language in which it is sometimes claimed that Māori is deficient is in the language to describe colours. I will attempt to show that the language is perfectly able to cope in this domain.

Ngā kupu Māori mō ngā tae
Colour terms in Māori

First of all let us look at the Māori terms for colours. The list in Table 10 shows most of the common terms for these.

Table 10	
<i>He kupu mō ngā tae</i>	
Māori terms for colours³⁵	
<i>hāmā</i>	light-coloured, faded, grey
<i>hāura</i>	brown
<i>hīnātore</i>	to glow with an unsteady light, phosphorescent
<i>hiriwa</i> (loanword)	silver (both colour and metal)
<i>hīwera</i>	red-brown (as if burnt)
<i>kaho</i>	cream, light coloured
<i>kahurangi</i>	blue, a light-coloured variety of greenstone
<i>kākāriki</i>	green, kākāriki – a small green parrot, green lizard, melon
<i>kānapanapa</i>	dark greeny blue (as deep water)
<i>karaka</i>	orange, karaka - a tree with orange berries, a variety of greenstone
<i>kawakawa</i>	dark green, kawakawa tree, a dark variety of greenstone
<i>kikorangi</i>	sky blue, blue sky
<i>kiwikiwi</i>	grey, a fern
<i>kōmā</i>	pale, whitish, pale grey
<i>kōwhai, kōhai</i>	yellow, a tree with yellow flowers
<i>kura</i>	red, scarlet, red feathers, precious, treasure
<i>mā</i>	white, clean, pale, faded
<i>mangaeka</i>	buff, pale brown, yellow
<i>mangu</i>	black
<i>māwhero</i>	pink
<i>mōhinahina</i>	grey
<i>ngangana</i>	red, scarlet, to glow
<i>pākākā</i>	red-brown, ginger coloured, dark orange
<i>pākā kōrito</i>	light brown
<i>pākurakura</i>	red, crimson
<i>pango</i>	black
<i>pāpura</i> (loanword)	purple
<i>parakaraka</i>	orange-yellow
<i>paraauri</i>	dark in colour, dark brown
<i>pīngao</i>	golden yellow, pīngao – a plant with golden-yellow leaves that grows on sand dunes

<i>poroporo</i>	pale purplish blue, a plant with purple berries
<i>pounamu</i>	dark green, greenstone
<i>pūmā</i>	grey, whitish
<i>pungapunga</i>	yellow, pollen of raupō, pumice
<i>purū</i> (loanword)	blue
<i>purū-pōuri</i> (loanword)	navy blue
<i>pūwhero, pūwherowhero</i>	reddish, pink, blush
<i>tea</i>	white
<i>teatea</i>	white, light in colour, pale
<i>tūāpōkere</i>	violet
<i>tūāuri</i>	indigo
<i>ura</i>	red-brown, glowing
<i>uriuri</i>	dark in colour, dark-green
<i>waiporoporo</i>	purple
<i>whānāriki</i>	pale yellow, sulphur
<i>whero</i>	red, orange-red
<i>wherowhero</i>	reddish

As with other languages, many of the terms for colours came from the words for things in the environment. Perhaps only the terms for black, white and red have words that seem to be exclusively for those colours. In the English meanings of these Māori terms, I have indicated the objects that have the same name as the colour.

There are also specialist terms used only for people, for example, *hina* (be grey-haired grey); *kiritea* (be white-skinned, fair); *pūhina, pūhinahina* (be grey - of hair and animals only); and *urukehu* (be fair-haired)

Other terms related to colours include those in Table 11.

Table 11	
<i>He kupu atu anō mō ngā tae</i>	
Some other terms related to colours	
<i>kahukura</i>	be multi-coloured, rainbow
<i>kōpurepure</i>	be spotted, in patches
<i>kōrako</i>	be albino
<i>kōrakorako</i>	be fair, whitish
<i>kōtingotingo</i>	be speckled
<i>māwhe</i>	be faded (in colour)
<i>mumura, muramura</i>	to glow, show a brilliant colour, bright, bold
<i>purepure</i>	be spotted, in patches or tufts
<i>tāingoingo</i>	be spotted, mottled
<i>takaāmiomio</i>	to be in bands, whirling round
<i>tawatawa</i>	be mottled, mackerel
<i>tongitongi</i>	be speckled
<i>whakahekeheke</i>	to be striped white

In 1881 William Colenso read a paper to the Hawke's Bay Philosophical Institute on the colour sense of the Māori.³⁶ Colenso stated that 'their fine discrimination of the various

shades and hues of colours – particularly of blacks, browns, reds, greens, etc. – was truly wonderful.³⁷ ‘Each tint or shade of colour bore its own peculiar name plainly and naturally, or figuratively, and sometimes both.’³⁸ He goes on to discuss the ability of the Māori he spent time with to describe such things as the colours of the rainbow, of *pounamu* (greenstone), *pāua*, fish, flowers, feathers, trees, *kūmara*, taro, berries, and the sky.

Colenso also states that the

principal proper terms for colours were often compounded ingeniously and beautifully, in accordance with the expression and idiom of their language:-

- By reduplication, and by half doubling:
- By adding qualifying adjectival terms for intensifying or lessening; the power of which was further heightened or lowered according to their position:
- By the aid of several apt particles of different degrees:
- By other expressions also adjoined, of admiration, or depreciation.³⁹

The list in Table 12 is an adaptation from the appendix of Colenso’s article to show how these four principles were used for the various hues of red.⁴⁰ As in other parts of Polynesia, red was the colour associated with the chiefly class. A mixture of *kōkōwai* or *tākou* (red ochre) and oil was used by the chiefly class as adornment, especially on important and ceremonial occasions.

Table 12
He tauira mō te kupu ‘whero’
A paradigm of the word *whero*

There are also several other proper names for red, for example, *kura*, *kurakura*, *ngangana*, *pākurakura* and *ura*.

• **Ascending: intensifying**

Indicating pure, clear, strong, brilliant, and lasting red colours.

<i>kōwhero</i>		red
<i>tino kōwhero</i>		very red
<i>tino whero rawa</i>		even redder
<i>whero nui</i>		bold red
<i>whero nui rawa</i>		very bold red
<i>whero nui whakaharahara</i>		bright red
<i>tino whero nui rawa</i>		extremely red
<i>tino whero nui rawa whakaharahara</i>		extremely bright red
<i>tōna whero i whero ai</i>		red as red
<i>tino whero whakawhero</i>		intensely red
<i>Kātahi te tino whero.</i>		How very red.
<i>Kātahi te mea i tino pai tōna whero.</i>		What a wonderful red.
<i>Koia rawa</i>	<i>te nui o te whero!</i>	What a bright red!
<i>Koia kau</i>	<i>te pai o te whero!</i>	What a nice red!
<i>Ehara</i>	<i>te kaha o te whero!</i>	What a strong red!
	<i>te ātaahua o te whero!</i>	What a beautiful red!

<i>Tēnā</i>	<i>te āhua pai o tōna whero!</i>	What a nice shade of red!
	<i>te tūāhua pai o tōna whero!</i>	What a nice red hue!
<i>Tino whero rawa, anana!</i>		Oh, what a striking red!
<i>whero kita</i>		vivid red
<i>whero kitakita</i>		very vivid red
<i>whero whakamoe kanohi</i>		red that makes the eyes squint
<i>whero whakakōrekoreko kanohi</i>		dazzling red

• **Descending: lessening**

1. Lighter reds.

<i>kōwherowhero</i>	light red
<i>wherowhero</i>	rose-coloured
<i>kōwhewhero</i>	pale red
<i>whewhero</i>	reddish
<i>tōwhero</i>	reddish
<i>tū-ā-whero</i>	somewhat red
<i>tū-ā-kōwhero</i>	fairly red
<i>tū-ā-kōwherowhero</i>	somewhat rose-coloured
<i>tū-ā-wherowhero</i>	palish rose-coloured
<i>tū-ā-kōwhewhero</i>	fairly pale red
<i>tu-ā-whewhero</i>	a little reddish
<i>wheronga-parakaraka</i>	orange-red
<i>whero-kōwhai</i>	yellow-red

2. Fainter, but having more or less of red and pink hues.

<i>mā-whero</i>	pink
<i>mā-whero mā-whero</i>	pale pink
<i>mā-wherowhero</i>	pinkish
<i>mā-tū-ā-wherowhero</i>	white with a red tinge
<i>e iti ana tōna whero</i>	faintly red
<i>e iti ana tōna wherowhero</i>	tinged faintly red
<i>e itiiti ana tōna whero</i>	very slightly red
<i>mā-wherowhero tū-ā-whakamā ake</i>	pinkish but nearer to white
<i>mā-wherowhero ake</i>	faintly pink
<i>mā-wherowhero iho</i>	very faintly pink
<i>mā-tū-ā-wherowhero iho</i>	white with a faint tinge of red
<i>mā-tū-ā-whewhero iho</i>	white with a faint tinge of pink
<i>āhua whero noa iho</i>	just slightly red
<i>āhua whakawhero noa</i>	tending towards red
<i>āhua wherowhero noa iho</i>	somewhat rose-coloured
<i>tū-āhua wherowhero noa iho haere</i>	somewhat rose-coloured approaching
<i>ake ki te mā</i>	white
<i>tōna whero, he wherowhero noa iho</i>	a red that is faintly rose-coloured with
<i>otirā āhua whakawhero ake</i>	merely a hint of red
<i>āta wherowhero</i>	quite rose-coloured
<i>tū-ā-kōwhewhero</i>	fairly pale red
<i>Tōna ata e āhua wherowhero ana.</i>	Its appearance is slightly pale red.

3. Dark-red, red-brown, etc.

<i>whero-pākākā.</i>	gingery red
<i>whero-tū-ā-pōuri</i>	slightly darkish red
<i>whero āhua pōuri</i>	somewhat darkish red
<i>whero āhua whakapōuri</i>	darkish red
<i>whero-parauri</i>	dark red, maroon
<i>Kīhai i mārama tōna whero.</i>	It's not a definite red.
<i>Kāhore i mārama tōna whero.</i>	It's not a definite red.
<i>whero-rere-kē</i>	unusual red
<i>whero-pōuri</i>	very dark red
<i>whero-pango</i>	extremely dark red
4. Faded red colour.	
<i>whero hāmā</i>	faded red
<i>wherowhero hāmā</i>	faded rose-colour
<i>whero tūpāpaku</i>	pale red
<i>wherowhero tūpāpaku</i>	very pale red
<i>whero kua kore</i>	faintly red
5. Ugly, disagreeable, bad, red colours.	
<i>whero kino</i>	ghastly red
<i>whero kinokino</i>	hideous red
<i>wherowhero kino</i>	ghastly rose-colour
<i>wherowhero kinokino</i>	hideous rose-colour
<i>He whero anō rā, otirā he whero tū-āhua kino.</i>	It's red, but a somewhat ghastly red.
<i>whero marutuna</i>	abhorrent red

Colenso did not supply any translations for the Māori, so I have added those, together with the macrons to show vowel length.

In these lists in Table 12 we should note the use of words such as *āhua* (somewhat), *tū-ā- . . .* (used to indicate a moderate degree), *kita* (intensely, brightly – of colours) and *marutuna* (imposing, awe-inspiring – used for both attractive and unattractive descriptions). Also note the reduplication of words to weaken the intensity of the colour, and the use of two words for different colours, in a similar way to that used with the English compass directions and some colours, for example, *whero-parakaraka* (orange-red), *whero-kōwhai* (yellow-red), *mā-whero* (pink), *whero-hāmā* (light red), *whero-pākākā* (gingery-red) and *whero-parauri* (dark red).

No doubt, fluent native speakers could add other ways of indicating hues and colour shades to the list given by Colenso, for example, *Te mutunga kē mai o te whero* (Nothing could be redder).

To most, if not all, of those terms and idiomatic phrases for the various natural colours of red, can be added an example of something that possesses that particular hue of red. These can generally be given in a phrase beginning with *me* (like, just as), for example, *tino whero, me te pua rātā* (very red, like the flowers of the rātā tree); *he whero, me he kōura* (red, like a crayfish);

he whero, me he toto pango (red, like black dried blood).

This is a paradigm for *whero*, the colour red, which means *whero* could be replaced with some of the other colour terms to give a similar variety of shades of meaning.

I have attempted to show in this section that, contrary to the belief of some, the language is able to cope with the description of colours perfectly well when required. We could explore a range of language domains of use which a section of non-speakers of Māori sees as inadequate, but let us leave this issue.

TE WHAI I TE HIRANGA **THE PURSUIT OF EXCELLENCE**

There seems to be an attitude by some people that Māori are willing to accept mediocre performance, or are not concerned with the pursuit of excellence. Perhaps this is why some people seem to think it is unimportant that publications with Māori language can be produced with innumerable errors. We need look only as far as pages 8 and 9 of this year's University Prospectus for examples of this.

Perhaps some in the University do not consider it important that what we produce in Māori is of the highest quality, but it is certainly the aim of all of us who work in Te Tumu, the School of Māori Studies. If the University is the critic and conscience of society then we need to ensure that we set the right example.

Māori do in fact strive for excellence. One does not need to look far to find evidence to prove this statement. One example will suffice. Those who know the language and the Māori performing arts will be aware of the intense competition and excellence achieved by teams competing in the Aotearoa Māori Traditional Performing Arts Festival held every two years. This is a Māori initiative and an event controlled totally by Māori, which is probably a reason for its success and the high standards achieved.

However, I would like to focus specifically on aspects of the language which reflect the value placed on the pursuit of excellence in Māori society.

Like other languages, Māori has sayings, proverbs and maxims that reflect the values of their society. In Māori these are known as *whakataukī*, *whakatauāki* and *pepeha*. There is a significant number of these which relate to the pursuit of excellence and diligence, some of which are frequently quoted and widely known. Here are a few popular examples:

Perhaps the most popular related to striving for goals is:

*Whāia e koe te iti kahurangi; ki te tuohu koe, me maunga teitei.*⁴¹

Pursue the small valued treasure; if you stoop, let it be to a lofty mountain, i.e. seek excellence. Let nothing but the insurmountable turn you from your purpose.

Here is another:

Te pae tawhiti whāia kia tata; te pae tata whakamaua kia tina.

Strive for long-term goals while ensuring that short-term goals are also achieved.

There are many *whakatauāki* and *whakataukī* that encourage hard work. Here are three that point out the advantages of industry as opposed to the unpleasant results of idleness:

Mauri mahi, mauri ora; mauri noho, mauri mate.
Industry brings well-being; idleness produces death.⁴²

He tangata momoe, he tangata māngere e kore e whiwhi ki te taonga.
A lackadaisical and lazy person is not likely to obtain riches, whether it be material wealth, wisdom or mana.⁴³

Mā pukumahi ka poto ngā maikuku; mā maikuku poto ka rahi te kai.
Through hard work the finger nails become shorter; by short finger nails food becomes plentiful.⁴⁴

Here is a *whakatauāki* to emphasise the importance of learning:

Whaowhia te kete mātauranga.
Fill the basket of knowledge.⁴⁵

Here are two popular *whakatauāki* urging the pursuit of perfection:

*Ruia taitea, kia tū ko taikākā anake.*⁴⁶
Cast aside the sapwood so that only the heartwood remains.

*Tūngia te ururoa, kia tupu whakaritorito te tupu o te harakeke.*⁴⁷
Burn off the undergrowth so that the flax shoots may sprout, i.e. clear away the old and redundant material so that innovation and fresh ideas may flourish.

The value of excellence and skill is also reflected in the traditional stories of the Māori. The famous story from Waikato about the courtship and marriage of Tūrongo, a *rangatira* from Tainui and the *puhi* (a daughter of a *rangatira*) from the East Coast, Māhina-a-rangi, reflects the value placed on skill and industry. After being duped by his brother, Whatihua, for the hand of Rua-pū-tahanga, a *puhi* from Taranaki, Tūrongo left his home in Kāwhia and travelled to the East Coast where he was hosted by Māhina-a-rangi's people and her parents, the chief Te Angiangi and his wife Tuaka. It soon became obvious to Māhina-a-rangi's people that Tūrongo was industrious, an expert in hunting birds and a skilled artisan. Te Angiangi, Māhina-a-rangi's father, advised his daughter, *'Me moe koe i a Tūrongo, hei rangatira mōu. He tangata kaha ki te mahi kai.*⁴⁸ (You should take Tūrongo as your husband. He is a good provider.) To cut a long story short, Tūrongo and Māhina-a-rangi married. This union united the chiefly lines of the East Coast with those of the Tainui tribes.

If one were to search through other traditional stories, similar examples of the high value placed on industry and excellence can be found. In Māori society mana is acquired principally through aristocratic birth, or *mana whakaheke*. This type of mana originates

through the senior genealogical lines from the *atua* (ancestral gods). However, during one's lifetime mana can also be acquired through one's talents and deeds. Māori recognised this type of mana as *mana whakatipu*.⁴⁹ It is through skill and excellence in the activities important in Māori society that one's mana can increase. So again this reflects the value placed by Māori people on making the best use of one's talents.

HE KŌRERO PŌHĒHĒ MŌ TE KŌRERO REORUA **MYTHS ABOUT BILINGUALISM**

There have been some firmly held myths propounded about bilingualism, not only in New Zealand but in other parts of the world as well. This is despite the evidence that would be obvious to most people travelling in other parts of the world, such as Europe, where bilingualism and multilingualism are normal.

It was a commonly held view for some time by some people, including educators, that minority language maintenance or development programmes in schools would retard English language development. Consequently, it was assumed that if minority children had deficiencies in English, then they needed instruction and practice in English, not in their own language. Parents of minority children were fed the advice that they should communicate with their children in English or their children would be confused and their chances of academic success would be reduced. I know that this view is held by some academics in this University because it has been expressed by them in forums here.

In fact this was not only bad advice, but in Aotearoa/New Zealand it has resulted in the steady decline in the number of speakers of Māori. The empirical evidence that has been published in the last thirty years not only supports the idea that being brought up speaking two or more languages is not a disadvantage, but that there are probably some subtle advantages, as well as the major benefit of being able to speak two languages and being comfortable in two cultures.

Some of these advantages are listed briefly in Table 13.

Table 13

Ngā hua o te mōhio ki ngā reo e rua me te whakaako ki ngā reo e rua
Some advantages of bilingualism and bilingual Education⁵⁰

- 1 Proficiency in two languages.
- 2 Greater social sensitivity and cultural understanding, i.e. more tolerance of other people and different cultures.
- 3 Better first language skills.
- 4 Greater adeptness at divergent and creative thinking.
- 5 Increased cognitive, social and emotional development.
- 6 Greater verbal and non-verbal intelligence.
- 7 Better understanding of how languages work. New languages are learned more easily.
- 8 Positive self concept and pride in one's background.
- 9 Increased probability of employment.

- 10 Stronger relationships between home and school.
- 11 Maintenance and revitalisation of the indigenous language and culture.

This is borne out to some degree by The National Māori Language Survey of the mid 1990s, which reported that Māori who had completed Post Compulsory Education Training were more likely to speak Māori than those whose formal education finished at school.⁵¹ Māori with university degrees were found to be considerably more likely than others to speak Māori. Over three-quarters (76%) of people with university degrees spoke Māori to some extent. Of those adults who were employed at the time of the survey, the most likely people to speak Māori were employed in legislative, administrative, managerial and professional occupations, and in technical and associated professional occupations.⁵² So much for the advice given so often for much of last century that Māori needed to abandon their own language to get on in the world!

Reasons given for learning certain second and foreign languages, or for not learning them, often relate to their economic value. So Japanese has been seen as being a desirable language to learn in New Zealand because of the need to trade with Japan, but Māori is not because for the last 140 years Māori have not been seen as important in the commercial world. The idea that the language was of little use in everyday life has been propounded so successfully that even many Māori went along with the idea for a number of decades in the twentieth century.

Legislation over a long period, especially relating to education, has further eroded any belief in the 'usefulness of Māori'. It is not the aim of this lecture to delve into the detrimental effects of those various pieces of legislation and education policy, except to say that the results have contributed in a major way to the decline in the numbers of people who are fluent speakers. I suggest that those who would like to learn more about this should enrol in the paper taught by Professor Ka'ai on the history and politics of the Māori language, Te Mana o te Reo.

Joshua Fishman has stressed the importance of 'reward systems'. People in a speech community speak the way they do because of the influence of reward systems requiring such speech.⁵³ Using the language of the family, community, society, or the people emphasises a person's membership of that particular group. This social aspect has the greatest influence on the child, but educational, fiscal, political and religious spheres play their part as well, increasingly so as the child grows up and moves out beyond the influence of the home. These most certainly have been significant in determining the changes in the state of the Māori language since early contact with Pākehā.

Any development that adds to the reward system for speaking Māori is useful. This is why Māori language programmes on television and the Māori language television channel are important. It is also the reason that Māori-medium education is so integral to the maintenance and revival of the language. But what rewards are there in this University and the local community for speaking Māori?

Schools, government departments, institutions (like the University), churches and the media can help language maintenance by using and reinforcing the minority language, in our case Māori, aiding literacy and fluency in it and giving it status in the eyes of the child and the community – or they can do the opposite and counteract the influence of the minority group child's family and community.⁵⁴ As Fishman points out:

Stable bilingualism and biculturalism cannot be maintained on the basis of open and unlimited interaction between minorities and majorities . . . Open economic access and unrestricted intergroup action . . . are destructive of minority ethnolinguistic continuity.⁵⁵

Me aha Te Whare Wānanga ki te tautoko i te reo Māori?

What can the University do to support the Māori language?

The University could take an active role in promoting the use of Māori. At the moment Te Tumu is a little enclave within the University where the language is used some of the time, although even there we are swamped by English. I am reminded of the ten months I spent at the University College of Wales, Aberystwyth, some twenty years ago. At that University every official publication was bilingual in English and Welsh. All signage was bilingual but with Welsh first. Many papers and courses were taught in Welsh. There were University hostels that were for Welsh speakers or people who wished to be immersed in Welsh language. University staff supported Welsh medium schools by:

- producing resources and research relevant to their needs;
- teacher education programmes for Welsh medium teaching; and
- quality language and cultural programmes.

There was also a Welsh medium television channel and Welsh medium radio.

In the University we could:

- promote Māori language and cultural practices within the University
- publish all official University documents in both Māori and English
- turn the University's World Wide Web site into a bilingual one
- appoint academic and general staff who speak Māori
- teach more papers in the medium of Māori
- establish a centre of excellence in research into Māori language and issues related to Māori
- establish University halls of residence for Māori speakers or people who wish to be immersed in the language
- support Māori-medium schools by producing :
 - resources and research relevant to their needs
 - teacher education programmes for Māori-medium teaching
 - quality language and cultural programmes to prepare Māori-medium teachers
- support Māori-medium television and Māori-medium radio

These are things that could be considered if we are serious about the University playing a role in the survival of the Māori language and adding to that reward system that I have talked about. If we set these sorts of things in place, what a compelling message that would send to prospective Māori students!

There is a common misconception that there is a dearth of Māori literature. Certainly, in relation to the huge corpus of publications in English and other international languages, the literature written in Māori is small. Yet one has only to look at Herbert Williams' *A Bibliography of Printed Maori to 1900* to realise that the claim that Māori has no literature is false. Williams lists more than a thousand entries. Some of those are single entries for newspapers in Māori that ran for a number of years. They contain a wealth of material that is now being used by bilingual historians and linguists to gain new insights into New Zealand's history and Māori language and culture.

In recent years there has been a growth in publications appearing in Māori, with a steady stream of books and materials for all age groups coming from a variety of sources, including the Ministry of Education's Te Pou Taki Kōrero, Learning Media. The old argument that it is not viable to publish books in Māori seems to be gone, at least with some publishing houses.

The ability to read and understand this literature facilitates the deepest understanding of the traditional Māori view of the world, one that was quite different from that originating from Europe. Perhaps the examples of the traditional Māori method of counting, the discussion on the colours and the terms for greenstone, the kūmara, taro, soil types and Māori astronomy will have given those of you who do not speak Māori an inkling of the door that can be opened by having a facility in the language.

HE KŌRERO WHAKAMUTUNGA **CONCLUSION**

I have attempted to show that Māori is a living language that has adapted and developed to meet the needs of its speakers. For it to continue to be spoken by a significant number of people requires all of us to play our part. Speakers of the language need to use it whenever possible, but people who do not speak Māori also have an important role in supporting and promoting its use. The University needs to play its part by ensuring that the resources are provided to enable the teaching of the language to be of the highest quality; to promote its use; and to ensure that the quality of published Māori meets the highest levels of scholarship. After all, Māori is the language that is unique to this country.

Korikori tāua, ka taka tauira.
Let us be moving, the sun is setting.

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