TRACKING CHANGES IN FAMILIARITY WITH BORROWINGS FROM TE REO MĀORI

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Abstract

One way in which non-Māori New Zealanders express their New Zealand identity is through the use of Māori words and phrases. Growth in the Māori word component of the New Zealand English lexicon is expected to come from the social cultural domain. This paper reports on an ongoing research project that aims to track this expected development. A 50-item questionnaire that was first administered to senior secondary students in the greater Wellington area in 2002 was used with a similar population in 2007, and the results analysed. To a considerable extent the results from the second implementation supported the earlier findings, in terms of both the estimated size of an average New Zealand English speaker's Māori word vocabulary other than proper nouns (70 – 80 words) and the differences between male and female and Māori and non-Māori respondents in their familiarity with these words. It appears however that these differences may be becoming less marked. The 2007 survey also provided further support for the claim that social cultural borrowings will be the principal source of growth for New Zealand English's Māori word dimension.

1. Introduction

The contribution of te reo Māori to the New Zealand English lexicon has long been acknowledged, with significant early markers of that contribution being

Morris's Australasian dictionary (Morris 1898), Sidney Baker's discussion of the language variety (Baker 1941), and Johannes Andersen's list of 246 Māori words that he felt 'are now in such common use that they may be regarded as incorporated in the English language' (Andersen 1946: 141). It is also generally accepted that the Māori word presence in New Zealand English has been increasing for almost 40 years, reflecting social and cultural changes since around 1970. Deverson (1984; 1991) commented on the increasing appearance of Māori words in the media and in literature, also noting that these words 'make up the most outstanding feature of the distinctive New Zealand English vocabulary' (1984: 4). Empirical evidence of this increase was provided by a corpus-based study that looked at the Māori word presence from 1850 to 2000 (Macalister 2006a). Drawing on a different type of data, television news broadcasts in 1984 and 2004 rather than written text, de Bres (2006) found no increase in the frequency of Māori lexical items although she did note 'increasing use of non-morphologically assimilated Māori lexical items, the introduction of new Māori lexical items and the now common use of Māori greetings' (ibid. 32). De Bres's findings were, however, in agreement with suggestions about the source of growth in the Māori word presence. Macalister (op. cit.) argued that this growth is largely from social culture, or words referring to non-material aspects of a culture, such as actions, concepts and relationships. A study of the treatment of thirteen Māori words in four New Zealand newspapers from 1997 to 2004 supported this claim, finding that '[t]he words that have an increased or steady frequency are all social culture word types' (Davies & Maclagan 2006: 96). In a limited investigation of Māori words found in job advertisements, words that would be classified as belonging to social culture, Westbrook (2007: 43) found that his respondents generally held 'positive attitudes towards the use of terms from te reo in English' and concluded that this would likely lead to more Māori words becoming 'well-established in the common knowledge of New Zealanders in the future.' It should be pointed out, however, that this expectation that growth in the Māori word presence in New Zealand English will be driven by social cultural types is not new; more than thirty years ago Ryan (1977: 366) predicted that 'the lexis from the societal area will very soon obtain a greater place in literate New Zealand English', although he was aware that 'this may still be some years in the future.'

There is, then, a tradition of monitoring and commenting on the contribution of te reo Māori to the New Zealand English lexicon, a tradition to which this paper contributes. The significance of changes in this component

of the lexicon extends beyond lexicographical interest, however, and has links to two other important areas of inquiry. The first such link is to the creation of a distinctly New Zealand identity, one that draws on Māori images and Māori culture as well as the Māori language, which, as Benton has recently pointed out, 'has increasingly taken on the role as a symbol of national identity' (2007: 177). Indeed, the desire to express a national identity has been proposed as one factor to explain an observed diachronic shift preferring Māori language over English language synonyms in New Zealand English, such as *weka* over *woodhen* (Macalister 2007b: 501). The second potential link is to research on the health of the Māori language, in that greater familiarity with Māori words and greater use of those words by majority language speakers may signal more positive attitudes towards the minority language (and its users), thus favouring regeneration efforts (de Bres forthcoming). Concerns about this interpretation should be noted, however. For example, Harlow has expressed unease about the 'view that what happens in English is somehow important for Māori' (2005: 141) and voiced concern that the value of the Māori language to New Zealand English speakers is 'only as a flag, a marker of distinctness' (ibid: : 145).

When discussing the contribution of te reo Māori to the New Zealand English lexicon, there has been a natural interest in gauging the size of the average New Zealand English speaker's Māori word vocabulary. Dictionaries, while providing a window on the growth of that component of the lexicon through inclusion in future editions of new Māori words found in a sufficient range and spread of written New Zealand English sources, do not provide a reliable guide to vocabulary size as they may include technical, specialist and redundant words which are unlikely to be in general use. Furthermore, dictionaries do not provide a consistent picture. For example, *The Dictionary of New Zealand English* (Orsman 1997) contained 746 headwords of Māori origin, by Kennedy and Yamazaki's count (Kennedy & Yamazaki 1999), whereas *The New Zealand Oxford Dictionary* (Deverson & Kennedy 2004) had rather fewer, although still more than 600 such entries according to its promotional material. If dictionaries are unreliable and probably exaggerated guides in this respect, then a more modest figure is likely. Deverson (1984) proposed 40 to 50 words other than place names as the size of an average New Zealander's Māori vocabulary, which estimate was repeated by Gordon and Deverson (1998) and endorsed by Bellett (1995). This figure refers to the size of an individual's passive vocabulary, rather than an indication of Māori loanwords in active use. Based on a survey of familiarity with Māori words

among senior secondary students in 2002, these figures were judged to be conservative and a higher range of 70 – 80 words was suggested (Macalister 2006b). At the same time, however, it was proposed that this would represent 'the loanword vocabulary with which school leavers enter adult life' and that this loanword lexicon would be 'likely to increase with age, and with increased exposure to loanword use' (ibid. 121). The implementation of the same survey questionnaire with older speakers provided some support for this contention (Macalister 2007a).

One question that arose following the 2002 survey was whether, if it were true that the Māori word presence in New Zealand English is increasing and that the growth is likely to come from the social culture category, this change could be tracked. Such an attempt to track longitudinal change has been pioneered in the study of New Zealand English by Elizabeth Gordon and Margaret Maclagan's work on the merger of *ear*/*air* (Maclagan & Gordon 1996; Gordon & Maclagan 2001), and their work suggested the possibility of repeating the survey in 2007, essentially one secondary school generation later. This paper reports on that second implementation of the survey. Given that change in the lexicon may not be as amenable to measurement at five-yearly intervals as sound changes have proven, it must be admitted that the re-implementation was undertaken with a degree of hesitation. However, on reflection it was felt that the undertaking was worthwhile as the results could strengthen the conclusions already drawn, as well as potentially suggesting areas for further research.

2. Survey Implementation

The 50-item multi-choice questionnaire was designed to be representative of Māori words, other than proper nouns, found in use in the year 2000 in a corpus of New Zealand English. No changes were made to the questionnaire between 2002 and 2007 and, as the design of the questionnaire was discussed in an earlier paper (Macalister 2006b), it will not be repeated in detail here. The same instrument and the same methodology were used on both occasions. The level of word knowledge that the questionnaire was designed to measure was receptive recognition, i.e. recognising the correct meaning from choices given. For each of the 50 items, four choices were offered, being the correct meaning and any three of the four following distractors:

- the meaning of a similar-sounding Māori word type

- the meaning of a similar-sounding English word type
- an item in a related semantic field
- a randomly selected meaning

As an example of this method, for the Māori word *toetoe* the correct answer was *a type of grass*, with a distractor from a related semantic field being *a type of seaweed*; *a type of poison* was another distractor, from the relatively similar-sounding Māori type *tutu*, and the final choice was *a type of clothing*, chosen for its echo of the ballet costume, the *tutu*.

In 2007 approaches were made to the principals of 17 secondary schools in the Greater Wellington area and permission was sought to conduct the survey among Year 13 students. Seven schools agreed to participate; five were the same schools as in 2002. Seven hundred and twenty four responses were received. The questionnaire was coded for computer input and analysis, using the software package *SPSS 14.0*. In addition to the correct answer and the distractors, a fifth option, labelled 'do not know', was included during inputting. This was done to encompass:

- those who did not know and did not hazard a guess
- those who did not answer the question because of (a) lack of time or (b) failure to turn the page
- those who selected more than one answer to a question

While these possibilities of interpretation are acknowledged, it was assumed that in general an unanswered question was a result of exercising the 'do not know' option. This was explicitly signalled as a valid response in the instructions. However, as discussed in Section 6.2 below, the 'do not know' option was not exercised equally across the respondent population.

As there was no mechanism for ensuring an exact parallel of the 2002 respondent population, it was not surprising that the 2007 population had a different composition from that of the first implementation. To begin with, the population sample for Wellington in 2007 was a little over 7% larger than in 2002 and consisted of a higher proportion of male respondents (37.1% as compared with 29.1% in 2002). As in 2002 male respondents were more likely to have studied te reo (32.7%) than female respondents (25.3%). These features are shown in Table 1.

Table 1: Composition by gender x studied te reo Māori

	STUDIED MĀORI	NOT STUDIED MĀORI	NO RESPONSE	TOTAL FOR GENDER
Male	88	177	4	269
	32.7%	*65.8%*	*1.5%*	*37.1%*
Female	114	334	3	451
	25.3%	*74.1%*	*0.6%*	*62.3%*
Not given		1	3	4
		25.0%	*75.0%*	*0.6%*
Total for Studied	202	512	10	724
Variable	*27.9%*	*70.7%*	*1.4%*	*100.0%*

Table 2: Composition by ethnicity x studied te reo Māori

ETHNIC IDENTIFICATION	STUDIED MĀORI	NOT STUDIED MĀORI	NO RESPONSE	TOTAL FOR ETHNIC IDENTIFICATION
Pākehā	97	287	3	387
	25.1%	*74.2%*	*0.7%*	*53.4%*
NZ Māori	40	12		52
	76.9%	*23.1%*		*7.2%*
Pacific Island Nation	20	42		62
	32.3%	*67.7%*		*8.6%*
Other	27	143	2	172
	15.7%	*83.1%*	*1.2%*	*23.8%*
Multiple Responses	18	28	5	51
	35.3%	54.9%	9.8%	7.0%
Total for Studied	202	512	10	724
Variable	*27.9%*	*70.7%*	*1.4%*	*100.0%*

Table 2 shows that respondents who identified as Pākehā again formed the majority, although a slightly smaller proportion than in 2002. Similarly, the proportion of Māori and Pacific Island Nation respondents was less than in

2002; those who identified as Other or provided multiple (or no) responses to this question increased. This did not, however, indicate a significantly higher number of non-New Zealand-born respondents; the proportion in the two years was very similar (22.2% as opposed to 21.1% in 2002).

One effect of the reduced representation of Māori and Pacific Island Nation respondents in 2007 may be seen in the smaller proportions who said either that they had studied te reo Māori (27.9% as opposed to 31.6% in 2002) or that they spoke Māori (4.8% as opposed to 6.1%).

A further difference between the two Wellington populations can be seen in the composition by decile band. In 2002 only one school ranked in the mid-decile band took part in the survey. By contrast, in 2007, almost one-third of respondents came from mid-decile schools, with a corresponding reduction in the representation of the other two bands, particularly the lower band. As in 2002, however, a majority of respondents came from the highest decile band. Also as in 2002, the greatest proportion of Māori and Pacific Island Nation respondents was found in the lowest decile band (10.8% and 28.4% respectively), and the greatest proportion of Pākehā respondents (61.0%) in the highest band.

Table 3: Composition by decile band x ethnicity

	PĀKEHĀ	NZ MĀORI	PACIFIC ISLAND NATION	OTHER	MULTIPLE RESPONSES	TOTAL FOR DECILE BAND
Band 1	22	8	21	18	5	74
Decile 1–3	*29.7%*	*10.8%*	*28.4%*	*24.3%*	*6.6%*	*10.2%*
Band 2	116	25	31	48	22	242
Decile 4-7	*47.9%*	*10.3%*	*12.8%*	*19.8%*	*9.1%*	*33.4%*
Band 3	249	19	10	106	24	408
Decile 8–10	*61.0%*	*4.7%*	*2.4%*	*26.0%*	*5.9%*	*56.4%*
Total for Ethnic	387	52	62	172	51	724
Identification	53.4%	7.2%	8.6%	23.8%	7.0%	100.0%

These differences in the composition of the two respondent populations can logically be expected to have an impact on the overall familiarity scores, as, in 2002:

- females showed greater familiarity with borrowings from te reo Māori than males;
- Māori were likely to have greatest familiarity with borrowings in the material and social culture domains;
- reflecting the ethnic composition of the decile bands, respondents in the bottom band showed greater familiarity with borrowings in the material and social culture domains.

The expectation would be, therefore, that raw familiarity scores would tend to be slightly lower in 2007 than in 2002. As will be presented in the following sections, however, this expectation was only partially realised.

3. Flora and Fauna Results

The 50-item questionnaire contained fourteen items drawn from the flora and fauna category. The percentage of people doing the test who could show that they knew the meaning of these words is given in Table 4, as are the percentages by a number of variables. One variable not included here is that of decile, which will be discussed in Section 6.2. It should be noted that in this and the following tables, '% correct' indicates the percentage of the applicable respondent population, including those who exercised the 'do not know' option, who selected the correct choice. It should also be noted that the comments following these tables are deliberately descriptive, aiming to draw attention to key features of the results which are presented in relative detail.

Eight of these types showed a decrease from 2002, which was in line with expectations based on the respondent population composition. As being Pākehā and New Zealand-born were found to be the best indicators of familiarity with types in this category in 2002, the results in 2007 may be thought to reflect the lower proportion of Pākehā in that population; at the same time, however, the 2007 results show Māori rather than Pākehā being most familiar with all but three of the words in this category. Another explanation may be that the higher proportion of male respondents has had an impact, as female respondents had higher scores than males on the top ten items in 2002, as they did in 2007. At the same time, however, *pukeko* (with an increased familiarity score of 5.7%), *toetoe* (1.3%) and *weta* (0.7%) and the three least common words showed an increase in 2007.

Table 4: Flora and Fauna Results (% correct)

TYPE	% CORRECT	MALE %	FEMALE %	PĀKEHĀ %	MĀORI %	SPEAK %	NOT SPEAK %	STUDY %	NOT STUDY %
pohutukawa	91.0	85.9	94.0	96.6	92.3	88.6	91.2	95.1	89.5
pukeko	86.9	81.4	88.0	93.8	94.2	94.3	85.2	90.6	83.4
weta	85.9	81.0	88.9	94.3	96.2	94.3	85.7	90.6	84.0
pipi	82.3	79.2	84.3	88.1	98.1	91.4	82.2	92.6	78.5
kowhai	78.6	69.5	84.3	86.6	92.3	91.4	78.2	85.2	76.0
kea	77.9	71.7	81.8	87.4	90.4	94.3	77.5	84.7	75.6
kina	74.6	71.4	76.8	78.6	98.1	94.3	73.8	86.2	70.1
hoki	72.0	69.9	73.5	77.3	86.5	85.7	71.6	79.8	69.1
toetoe	54.3	50.6	56.4	66.0	61.5	74.3	53.4	62.1	51.2
raupo	27.1	22.7	29.9	29.4	34.6	48.6	26.2	31.0	25.4
kotuku	24.9	26.0	24.3	25.5	50.0	71.4	22.7	31.0	22.1
piwakawaka	17.5	18.2	17.0	16.2	38.5	60.0	15.4	21.2	16.2
tieke	12.8	16.0	11.0	12.6	15.4	14.3	12.9	12.8	13.1
akeake	12.4	10.0	13.9	13.9	13.5	17.1	12.3	12.8	12.5

4. Material Culture Results

Eleven types drawn from the material culture category were included in the survey questionnaire. The percentage of people doing the test who could show that they knew the meaning of these words is given in Table 5, as well as the results by a number of variables, again excluding decile.

These results tend to show the expected pattern of slightly reduced raw familiarity scores for five types, and there are a further three (*poi, hangi, koru*) where the increase is negligible. Similarly, the small increases for *maunga* (from 61.0% to 63.4%) and *pounamu* (from 73.0% to 76.7%) do not appear significant, but the size of the change for *taiaha* (from 51.9% to 64.2%) cannot be explained by the altered composition of the respondent population, even allowing for the fact that male respondents showed greater familiarity than females in 2002 for *taiaha* – along with *pa* and *utu*. In that respect, it is worth noting that the difference between male and female respondents for *pa* was reversed in 2007.

As in 2002, Pacific Island Nation respondents showed greater familiarity than Pākehā on a number of items in this category and again Pacific Island

Table 5: Material Culture Results (% correct)

TYPE	% CORRECT	MALE %	FEMALE %	PĀKEHĀ %	MĀORI %	PACIFIC ISLAND NATION %	SPEAK %	NOT SPEAK %	STUDY %	NOT STUDY %
waka	86.9	82.9	89.4	93.3	92.3	85.5	88.6	87.1	93.1	84.6
poi	84.9	78.4	89.1	90.4	96.2	82.3	88.6	84.9	92.6	82.0
hangi	77.5	74.3	79.6	81.9	94.2	83.9	97.1	76.7	85.1	74.6
pounamu	76.7	72.5	79.6	80.9	88.5	74.2	91.4	76.7	84.7	73.6
taiaha	64.2	70.3	61.0	66.1	88.5	67.7	91.4	63.2	77.7	59.2
maunga	63.4	58.7	66.1	62.8	88.5	77.4	91.4	62.1	75.7	58.8
whare kai	61.9	59.5	63.4	63.6	82.7	88.7	82.9	60.9	75.2	56.8
pa	58.7	56.5	60.5	67.2	78.8	35.5	77.1	58.3	67.3	55.7
koru	52.8	45.0	57.6	57.9	76.9	50.0	80.0	51.5	59.9	50.0
nohoanga	26.7	26.4	26.6	19.4	59.6	40.3	62.9	24.6	37.1	22.7
paepae	19.8	19.0	20.4	14.7	59.6	21.0	80.0	16.8	33.2	14.8

Nation respondents showed greatest familiarity with *whare kai* although not, this time, with *nohoanga*.

5. Social Culture Results

The largest of the three semantic domains represented in the survey was that of social culture, which contributed 25 types, or 50% of the total. The results for these items are provided in Table 6.

As in the previous two categories, around half of the types showed the expected decrease in raw familiarity scores. Twelve of these types, however, show an increase in familiarity scores over the 2002 results. For convenience, these are shown in Table 7, ordered from greatest to least increase.

As in 2002, females outperformed males in this category, although it is interesting to note that in 2007 male respondents showed the greater familiarity with ten of these types, as opposed to just two in 2002. However, being Māori, speaking and having studied te reo Māori were the best predictors of familiarity with words in this category, with the puzzling exception of *haka*. The one type that showed a dramatic increase in familiarity for these

Table 6: Social Culture Results (% correct)

TYPE	% CORRECT	MALE %	FEMALE %	PĀKEHĀ %	MĀORI %	PACIFIC ISLAND NATION %	SPEAK %	NOT SPEAK %	STUDY %	NOT STUDY %
haka	91.3	88.5	92.9	95.9	94.2	87.1	88.6	91.6	94.6	90.0
te reo	85.3	81.0	88.2	87.8	96.1	83.9	88.6	85.5	90.6	83.4
aroha	79.8	71.4	84.9	83.2	96.1	82.2	94.3	79.3	88.1	76.7
tapu	76.8	72.9	79.4	83.5	88.5	83.9	88.6	76.6	88.1	72.6
whakapapa	72.9	73.2	72.9	73.4	94.2	74.2	88.6	72.5	84.1	68.9
hui	67.7	63.9	70.3	71.8	90.4	61.3	88.6	66.9	81.7	63.3
taonga	64.9	59.1	68.5	66.4	84.6	74.2	91.4	63.7	73.3	61.5
mokopuna	63.8	58.0	67.4	63.6	92.3	72.6	94.3	62.7	77.2	58.8
mihi	62.7	31.1	67.8	65.6	84.6	58.1	91.4	61.3	80.2	55.8
karakia	54.8	50.2	58.1	51.9	80.8	71.0	80.0	53.9	65.3	51.2
korero	51.5	47.2	54.1	45.2	88.5	75.8	91.4	49.8	68.8	45.5
kaumatua	50.5	47.9	52.5	50.6	78.8	66.1	80.0	49.5	63.4	46.3
utu	50.5	52.0	49.9	52.7	76.9	45.2	82.8	49.2	56.4	48.8
hikoi	47.5	47.9	47.7	46.0	84.6	59.7	88.6	45.8	65.8	46.3
kura kaupapa	40.9	42.3	39.9	35.9	80.8	48.4	82.8	38.8	59.4	33.8
hapu	39.6	42.0	38.4	40.8	73.1	25.8	85.7	37.5	50.0	35.9
mana whenua	39.5	36.8	41.5	38.2	50.0	45.2	57.1	38.9	45.5	37.3
wairua	39.5	42.7	37.7	33.6	84.6	41.9	82.8	37.5	49.5	35.5
taihoa	33.8	34.2	33.7	30.7	73.1	32.2	85.7	31.5	42.1	31.0
kaitiaki	33.4	36.0	31.9	32.8	65.4	24.2	80.0	31.2	47.5	27.7
rangatiratanga	32.3	32.3	32.4	33.1	53.8	25.8	71.4	30.6	40.6	29.1
tumuaki	30.9	34.6	28.8	30.5	51.9	30.6	71.4	29.0	40.1	27.1
taha Māori	30.8	30.5	30.8	32.5	61.5	25.8	62.8	29.1	41.6	26.6
raupatu	25.5	22.3	27.7	24.8	42.3	17.7	42.8	24.9	32.7	23.0
rahui	16.3	18.2	15.1	13.9	26.9	9.7	34.3	15.4	18.8	15.2

respondents was *rangatiratanga,* which moved from 41.5% for speakers in 2002 to 71.4% in 2007.

In 2007 there were no items on which Pacific Island Nation respondents outperformed Māori (there were three in 2002), and as in 2002 Pacific Island

Nation respondents tended to display greater familiarity with the types in this category than did Pākehā.

Table 7: Social Culture Types with increased familiarity scores, 2002–2007 (% correct)

TYPE	2002	2007	% INCREASE
hikoi	35.2	47.5	12.3
rangatiratanga	21.1	32.3	11.2
whakapapa	62.9	72.9	10.0
utu	42.6	50.5	7.9
mokopuna	56.7	63.8	7.2
rahui	11.9	16.3	4.4
te reo	81.2	85.3	4.1
taonga	61.7	64.9	3.2
kaitiaki	30.9	33.4	2.5
mihi	61.3	62.7	1.4
karakia	53.6	54.8	1.2
kura kaupapa	40.7	40.9	0.2

While the differences for three of the items (*mihi, karakia, kura kaupapa*) do not appear meaningful, and the change for *utu* may at least be partially explained by the higher proportion of male respondents, remembering that in 2002 this was one of a small group of words on which male respondents outscored females, the general impression is one of greater familiarity with words in this category. This is particularly the case for *whakapapa, mokopuna, hikoi* and *rangatiratanga*, for all of which the percentage increase from 2002 to 2007 exceeds seven per cent.

6. Discussion

Statistical analysis could be carried out for each type to determine whether the different results in 2002 and 2007 are significant. It needs to be remembered, however, that the words are not important in themselves but as representatives of their categories. For the discussion of the earlier findings the following framework was proposed.

DEGREE OF FAMILIARITY	DESCRIPTION
80–100%	likely to be familiar to most speakers of New Zealand English
60–79%	likely to be familiar to a majority of speakers of New Zealand English
40–59%	likely to be familiar to around half the speakers of New Zealand English, and to become better known
20–39%	likely to be familiar to a minority of speakers of New Zealand English
0–19%	likely to be known to a relatively few speakers of New Zealand English, and generally to be regarded as an unknown word

Words in the two highest bands could be regarded as reasonably well-established in the New Zealand English lexicon, words in the two lowest bands as not well-known, and words in the middle band as in a transition stage. It was also emphasised at that time that the division into bands was a convenience for discussion purposes, and that any real difference in familiarity between a type with a 61% score and a 59% score would be unlikely. However, using this framework, the results for 2002 and 2007 are presented in Tables 8 and 9. The discussion begins by examining the three semantic domains, then considers the role of a number of variables. The final section of the discussion considers future directions for the Māori lexical presence in New Zealand English through looking at two types in particular.

6.1 The Semantic Domains

Overall, the flora and fauna and material culture categories appear remarkably constant. In the former, one item (*kea*) has slipped from the highest to the second highest band, possibly reflecting the increased male presence in the respondent population, and in the latter one item (*paepae*) has slipped from the second lowest to the lowest band. However, with an overall familiarity score of 19.8% this is an extremely marginal change. Certainly these slight shifts do not affect the balance between reasonably well-established and not well-known words in these two categories, and would seem to support claims that these domains in New Zealand English are unlikely to be significant

Table 8: Correct Answers (% bands) x Semantic Domains in 2002

	FLORA & FAUNA	MATERIAL CULTURE	SOCIAL CULTURE
80–100%	36%	18%	12%
60–79%	21%	45%	20%
40–59%	7%	18%	40%
20–39%	14%	18%	24%
0–19%	21%	0%	4%

Table 9: Correct Answers (% bands) x Semantic Domains in 2007

	FLORA & FAUNA	MATERIAL CULTURE	SOCIAL CULTURE
80–100%	28.5%	18%	8%
60–79%	28.5%	45%	28%
40–59%	7%	18%	24%
20–39%	14%	9%	36%
0–19%	21%	9%	4%

contributors to an expansion of the Māori word component of the New Zealand English lexicon.

Change within the social culture category is more dramatic than in the other two categories, and this is consistent with predictions that this domain of use is likely to be the main contributor to future growth in the Māori presence in New Zealand English. There was a 4% growth in the proportion of words that can be regarded as reasonably well-known, and a 16% decrease in words previously identified as being in a transition stage. The four words that shifted from the mid- to the second-lowest band (*mana whenua, hapu, wairua, taihoa*) may have been responding to changes in the respondent population – *mana whenua, hapu* and *wairua* were considerably more familiar to females than to males in 2002; *taihoa, hapu* and *wairua* were considerably more familiar to Māori than to other respondents in 2002. Furthermore, three of these four types had familiarity scores between 39% and 40% and so their allocation to the second-lowest band is extremely marginal; it is not being claimed that the questionnaire is so sensitive an instrument that this is a meaningful shift. As a result, it would be prudent to interpret these shifts with extreme caution. All the same, it is worth remembering that twelve of the types in this

category showed an increase in familiarity scores in 2007, so changes in the composition of the population may not be an explanation. It may indeed be that these words represent words that are falling out of, rather than moving into, the lexicon.

6.2 The Variables

Information on a number of variables was gathered during the implementation of the survey. For three of those variables the findings were predictable: those who were born in New Zealand, those who have studied te reo Māori, and those who speak the language are more likely to be familiar with Māori words than those who were born elsewhere, those who have not studied te reo, and those who do not speak the language. The three other variables are discussed below.

Gender

In 2002 a consistent difference was found between male and female respondents. With the exception of a small group of words, females showed greater familiarity than did males despite the fact that males were more likely to have studied te reo and more likely to have been born in New Zealand. This pattern persisted in 2007, but in a slightly weaker form. While the difference between male and female respondents was striking on a handful of types, such as *kowhai*, *koru*, *aroha* and *mihi* where females outperformed males by 14.8%, 12.6%, 13.5% and an extraordinary 36.7% respectively, males showed greater familiarity with three of the four least familiar flora and fauna types, ten of the social culture types, and *taiaha*.

Ethnicity

A surprising result in 2002 was that Pākehā showed greater familiarity with flora and fauna borrowings than did Māori. This result was reversed in 2007, and in all three semantic domains those who identified as New Zealand Māori were likely to have greatest familiarity with the types represented. In the social culture domain, Pacific Island Nation respondents continued to display greater familiarity than did Pākehā, although this was less pronounced than in 2002. Eleven social culture items were correctly answered by 60 – 100% of Pacific Island Nation respondents, as opposed to nine for Pākehā respondents. The corresponding figures for 2002 were twelve and six respectively.

Decile Ranking

In 2002, when there was only one school represented in the mid-decile band, a comparison was made between the top and the bottom decile bands. At that time top-band respondents tended to show the greater familiarity with flora and fauna terms, bottom-band respondents with material and social culture. Differences between the bands were attributed to their ethnic composition rather than to socio-economic factors which, following Greenberg's suggestion (1971: 188) that 'currency in various socio-economic strata and occupational groups' is an indication of a word's adoption into the lexicon, provided further support for claiming these words as part of New Zealand English.

In 2007, the results were a little different. In the flora and fauna category, nine of the fourteen types were most familiar to top-band respondents, five to mid-band. Bottom-band respondents showed the least familiarity with all types, except the generally unfamiliar *tieke* and including the handful of kai moana terms (*pipi, kina, hoki*) on which they had scored highest in 2002. In the material culture category, bottom-band respondents showed greatest familiarity with only two items, the two least familiar types (*nohoanga, paepae*), and in the social culture category mid-band respondents displayed greatest familiarity with twelve of the fifteen most familiar types (i.e. scores of over 40%). Bottom-band respondents showed greatest familiarity with only five types in this domain, one more than top-band respondents.

The results, therefore, did not appear to fully support the 2002 findings although, it must be emphasised, the differences were not such as to pose a challenge to the earlier interpretation of the results, particularly the claimed support for evidence of widespread adoption of these borrowings into the New Zealand English lexicon. The principal point of difference was that whereas the 2002 results provided support for Bauer and Bauer's finding that the forms 'closely associated with the Māori population … are associated most strongly with low decile' (2000: 60), the 2007 results did not.

An examination of the composition of the three decile bands (Table 10) does not offer an obvious explanation for the different results between 2002 and 2007. Only the relatively high proportion of male respondents (47.3%) in the bottom-band would appear to contribute to an explanation of the results for that band, whereas the relatively low proportions of Māori, Pacific Island Nation, and New Zealand-born respondents in the top-decile band would have been expected to have had an impact on that band's familiarity scores. In other words, an analysis of the two bands' composition would predict that bottom-

band respondents would generally out-perform top-band respondents, but this did not happen.

Table 10: Composition of decile bands x selected variables

	DECILE BAND 1	DECILE BAND 2	DECILE BAND 3
% NZ Māori	10.8	10.3	4.6
% Pacific	28.4	12.8	2.4
% NZ born	81.0	83.0	71.6
% Male	47.3	35.1	36.5
% Studied te reo	37.8	26.0	27.2
% Speak te reo	4.0	7.0	3.7

A possible explanation for this challenge to expectations may be offered by what can be inferred about respondents' approach to answering the questionnaire. Table 11 shows the range of respondents who did not provide an answer to an item. In each semantic domain the indication is that for any given item a higher proportion of bottom-band respondents did not respond than in the mid- or top-bands. In flora and fauna, for example, 8.1% (N = 6) of bottom-band respondents did not select an answer for *pohutukawa* as compared with 1.2% and 0.4% for the other two bands (N = 3 and 2 respectively). Similarly for *poi*, in material culture, 12.2% (N = 9) of bottom-band respondents did not select an answer; the proportion of respondents in the other two bands was 4.5% (N = 11) and 0.7% (N = 3). The same pattern was observed for the less familiar types in the survey. For the social culture type *tumuaki*, for instance, 28.4% (N = 21) of bottom-band respondents did not choose an answer compared with 18.6% (N = 45) and 17.9% (N = 73) in the mid- and top-bands.

It may be therefore that this marked tendency among bottom-band respondents to leave an item unanswered may explain why the familiarity scores in 2007 when examined by decile band do not reflect the expectations that arise from an examination of the decile bands' composition. However, whether this results from a genuine lack of familiarity with a word, or from an unwillingness to guess, or even from a less constructive attitude towards answering the survey questionnaire cannot be known. As the survey was not presented as a test, and there was no pressure to 'get it right', it is necessary to assume the accuracy of the answers – and the non-answers – given.

Table 11: Range of non–responses (%) x decile band x semantic domain

	FLORA AND FAUNA		MATERIAL CULTURE		SOCIAL CULTURE	
	LOWEST FOR ANY ITEM	HIGHEST FOR ANY ITEM	LOWEST FOR ANY ITEM	HIGHEST FOR ANY ITEM	LOWEST FOR ANY ITEM	HIGHEST FOR ANY ITEM
Decile Band 1	8.1	29.7	12.2	24.3	10.8	28.4
Decile Band 2	1.2	20.7	4.5	17.8	1.2	18.6
Decile Band 3	0.5	15.4	0.7	17.4	0.25	17.9

6.3 Future directions: the cases of 'taiaha' and 'utu'

As noted at the outset of this paper, it is generally accepted today that there will be continuing growth in the Māori word presence in New Zealand English, and that this growth is likely to come from the social culture category. To gain some idea of what may affect this lexical development, this section examines in more detail two types for which there was an increase from 2002 to 2007.

Taiaha

The flora and fauna and material culture categories are not expected to make a major contribution to any expansion in the Māori word presence in New Zealand English (see Section 6.1), but in these domains one type did show a significant increase in familiarity. *Taiaha* increased by 12.3%, from 51.9% in 2002 to 64.2% in 2007. This is a word that was included in the 1933 Supplement of the *Oxford English Dictionary*, which inclusion has been regarded as a sign of its having been 'accepted and adopted' into English (Andersen 1946: 141). It seems probable that at this time the word was used with historical rather than contemporary reference, however. This view may be supported by the fact that Bellett included *taiaha* in her survey and found it one of the least known words among her 143 respondents (1995: 100). It formed a group of words that she felt were 'not known by many' (ibid. : 91). Among senior secondary students in the greater Wellington region in 2007, however, the word had moved into a range where it was likely to be familiar to a majority of speakers of New Zealand English, a conclusion that receives some support from the implementation of the survey with older speakers in which the type received a similar familiarity score (Macalister 2007a).

The picture that emerges for *taiaha*, then, is one of increasing familiarity leading to growth in the Māori word lexicon of New Zealand English

speakers. A tentative explanation may lie in the object's contemporary use in formal welcomes, its occasional appearance in news stories[1], the importance of skill with the taiaha in Witi Ihimaera's *The Whale Rider*[2], and the teaching of taiaha skills in at least some schools.

Utu

One of the social culture types that showed an increase from 2002 to 2007 was *utu*, one of the Māori words that appeared in the first edition of the *Oxford English Dictionary* in 1928 and so was judged to 'have been adopted as part of the common stock of our language' (Andersen op. cit.), although it should be noted that the primary meaning at this time was related to payment rather than to revenge (ibid.: 147). This was also a word that Bellett included in her survey and one that appears to have been familiar to around one-third of her respondents (1995: 99), making it one of a group of words 'that most people with a general awareness of things-Māori will usually at least recognise' (ibid. : 91). The word again received attention in 2001 when Bartlett interviewed 120 people in Christchurch about it and found the word was known to only around a quarter of interviewees, noting also that 'with regard to 'utu', the tide of knowledge is almost completely out as far as the younger generation is concerned' (2002: 7). Although respondents in the 2002 and 2007 surveys displayed greater familiarity than this, the results on both occasions placed it in the band of words likely to be familiar to around half the speakers of New Zealand English. It had not, in other words, shifted, and appeared to be in a similar stage of familiarity as it had been for Bellett's Otago respondents almost 15 years earlier.

Utu may, then, be an example of a Māori word that is destined to remain in this degree of familiarity for this population, not becoming more familiar but, at the same time, not becoming less familiar. Geoff Murphy's 1983 film *Utu* does not appear to have had any lasting influence on awareness of the word (as discussed by Bartlett 2002), and there are no obvious triggers in contemporary society that will raise its profile for this population of senior secondary students. This does not, of course, preclude the word's becoming increasingly familiar for this group of speakers over time; *utu* was found to be very familiar to older speakers (Macalister 2007a).

At this stage, however, it may be worth commenting in a little more detail on the nature of the Māori types included in the questionnaire. All are loanwords, that is, words of Māori origin that have attested use in written New Zealand English, but not all loanwords are equal. The classic distinction

is between inherited, established and nonce borrowings (Weinreich 1964). An inherited borrowing, such as the bird names *moa* and *kiwi*, is one that passes in use from one generation to the next, and is so well-established in the language that speakers no longer regard it as being a Māori word. An established borrowing, such as *whanau*, is one that is familiar to and used by speakers of the language, but remains identified as being of foreign origin. A nonce borrowing, however, may be a one-off, perhaps used by a bilingual speaker when communicating in English, and is likely to be understood by a restricted group only. A type such as *nohoanga* has elements of a nonce borrowing, but all the words included in the survey have multiple attestations of use within New Zealand English, and as such can be regarded as incorporating both established and inherited borrowings. Furthermore, apart from a few mainly flora and fauna types, all the words in the survey have English language synonyms although, particularly with inherited borrowings, these synonyms (such as *war dance* for *haka*) may be largely redundant. With a type such as *haka*, it is likely that if a respondent is familiar with the signified, then the Māori language signifier will also be known. With established and nonce borrowings, on the other hand, the possibility must be acknowledged that an incorrect (or no) response may be a result of unfamiliarity with either the signified or the Māori language signifier. Future vocabulary growth may, therefore, result from encounters with the signified, or the signifier, or both.

7. Summary

Based on analysis of the respondent population in 2002 and 2007, it was anticipated that familiarity scores would tend to be slightly lower in 2007, and this did indeed prove to be the case for around fifty per cent of items in the questionnaire. Conversely however, and, being contrary to expectations based on the composition of the respondent population, of more interest, a similar proportion of words showed an increase.

In the flora and fauna and material culture categories, the changes were generally small. Only one item in these two categories showed an increase of over ten per cent (*taiaha*), with a further three recording increases of five per cent or more (*pukeko, akeake, piwakawaka*). Three items in these two categories also recorded decreases of five per cent or more (*pipi, kea, raupo*). Overall, however, these generally small changes in score did not affect the picture of the place of Māori words from these domains in New

Zealand English – a relatively static group of words that are reasonably well-established within the lexicon.

Items in the social culture domain accounted for half the items in the questionnaire, and changes here seemed to be slightly more pronounced. Three items recorded increases in excess of ten per cent (*hikoi, whakapapa, rangatiratanga*), with a further two increasing their familiarity score by more than five per cent (*mokopuna, utu*). The expectation of slightly lower familiarity scores in 2007 did hold true for just over half of the items in the social culture category, with six types showing decreases of between five and ten per cent (*hui, korero, kaumatua, mana whenua, taihoa, tumuaki*). These increases and decreases did affect the picture of the overall place of this domain in New Zealand English, with an increase in the proportion of reasonably well-known Māori words. This would seem to accord with earlier claims about the nature of changes in this part of the New Zealand English lexicon.

Furthermore, and quite apart from any evidence of change that the 2007 survey may indicate, it is reassuring to note that the patterns that emerged in 2002 have been confirmed in 2007. This includes both the contributions and relative dynamism of the three semantic domains, and the estimated size of the Māori loanword vocabulary (other than place names) of the average New Zealander.

This implementation of the survey has also, however, raised some questions which a planned third implementation in 2012 will seek to answer. As well as an ongoing interest in tracking any changes in the Māori word vocabulary, questions of interest include whether the apparent closing of the familiarity score gaps between male and female respondents and between Pākehā and Pacific Island Nation respondents in social culture will be maintained. It will also be important in the next implementation to obtain greater participation from schools in the lowest decile bands, if possible, so that the role of the socio-economic variable can be investigated with greater assurance.

Notes

1 For example, ‘Iti has pleaded not guilty to assaulting John Te Kaha and Nicholas Zieltjes using a taiaha as a weapon, …’ (*The Dominion*, 8 December 2000, p. 8).

2 Thanks to an anonymous reviewer for suggesting the role this book and its film adaptation may have played here.

References

Andersen, Johannes C. 1946. 'Māori Words Incorporated Into the English Language.' *Journal of the Polynesian Society* 55: 141–162.

Baker, Sidney J. 1941. *New Zealand Slang: A Dictionary of Colloquialisms.* Christchurch: Whitcombe & Tombs.

Bartlett, Maria. 2002. 'Utu: A bit of give and take?' *NZWords* 6: 6–7.

Bauer, Laurie and Bauer, Winifred. 2000. 'The influence of the Māori population in NZ dialect areas.' *Te Reo* 43: 39–61.

Bellett, Donella. 1995. 'Hakas, hangis and kiwis: Māori lexical influence on New Zealand English.' *Te Reo* 38: 73–104.

Benton, Richard A. 2007. '*Mauri* or Mirage? The Status of the Māori Language in Aotearoa New Zealand in the Third Millenium.' In Amy B. M. Tsui and James W. Tollefson (eds) *Language Policy, Culture, and Identity in Asian Contexts* Mahwah, NJ: Lawrence Erlbaum: 163–181.

Davies, Carolyn and Maclagan, Margaret. 2006. 'Māori words – Read all about it: testing the presence of 13 Māori words in four New Zealand newspapers from 1997 to 2004.' *Te Reo* 49: 73–99.

de Bres, Julia. 2006. 'Māori lexical items in the mainstream television news in New Zealand.' *New Zealand English Journal* 20: 17–34.

de Bres, Julia. forthcoming. 'Planning for Tolerability: Promoting positive attitudes and behaviours towards the Māori language among non-Māori New Zealanders'. Unpublished PhD thesis. Wellington: Victoria University of Wellington.

Deverson, Tony. 1984. ' "Home Loans": Māori input into current New Zealand English.' *English in New Zealand* 33: 4–10.

Deverson, Tony. 1991. 'New Zealand English lexis: the Māori dimension.' *English Today* 26.

Deverson, Tony and Kennedy, Graeme (eds) (2004). *The New Zealand Oxford Dictionary.* Melbourne: Oxford University Press.

Gordon, Elizabeth and Deverson, Tony. 1998. *New Zealand English and English in New Zealand.* Auckland: New House.

Gordon, Elizabeth and Maclagan, Margaret. 2001. ' "Capturing a sound change": a real time study over 15 years of the NEAR/SQUARE merger in New Zealand English.' *Australian Journal of Linguistics* 21: 215-238.

Greenberg, Joseph H. 1971. *Language, Culture and Communication: Essays by Joseph H. Greenberg.* Stanford: Stanford University Press.

Harlow, Ray. 2005. 'Covert attitudes to Māori.' *International Journal of the Sociology of Language* 172: 133–147.

Kennedy, Graeme and Yamazaki, Shunji. 1999. 'The influence of Māori on the New Zealand English lexicon.' In John M. Kirk (ed.) *Corpora Galore: Analyses and Techniques in Describing English* Amsterdam: Rodopi: 33–44.

Macalister, John. 2006a. 'The Māori presence in the New Zealand English lexicon, 1850–2000: Evidence from a corpus-based study.' *English World-Wide* 27: 1–24.

Macalister, John. 2006b. 'Of Weka and Waiata: Familiarity with Borrowings from Te Reo Māori.' *Te Reo* 49: 101–124.

Macalister, John. 2007a. 'Revisiting Weka and Waiata: Familiarity with Māori words among older speakers of New Zealand English.' *New Zealand English Journal*: 34–43.

Macalister, John. 2007b. 'Weka or woodhen? Nativization through lexical choice in New Zealand English.' *World Englishes* 26: 492–506.

Maclagan, Margaret and Gordon, Elizabeth. 1996. 'Out of the AIR and into the EAR: Another view of the New Zealand diphthong merger.' *Language Variation and Change* 8: 125–147.

Morris, Edward. 1898. *Austral English.* London: Macmillan.

Orsman, Harry. 1997. *The Dictionary of New Zealand English: A Dictionary of New Zealandisms on Historical Principles.* Auckland: Oxford University Press.

Ryan, J. S. 1977. 'The tolerance of Māori in New Zealand English.' *Orbis* 26: 341–370.

Weinreich, Uriel. 1964. *Languages in Contact: Findings and Problems.* The Hague: Mouton.

Westbrook, Amigo. 2007. 'Te reo Māori words in job advertisements: Lexemes of New Zealand English?' *Wellington Working Papers in Linguistics* 18: 31–48.