

Women and Language Change in NZE: The Case for Considering Individual as well as Group Data

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Introduction

The research reported in this paper was stimulated by what we call the *white rabbit* phenomenon.¹ We noted women from the upper social classes in New Zealand pronouncing this phrase as [ʌait ɹebət], with a very conservative pronunciation of the diphthong /ai/ and a very innovative pronunciation of the front vowel /æ/. Younger women may not produce the voiceless [ʌ], but their vowel pronunciations are similar to those of the older women. This pronunciation is consistent with much sociolinguistic research which has found that women play a dual role in sound change. When a sound change is below the level of consciousness and hence not stigmatised, women are usually in the lead. But when the sound change is recognised and becomes stigmatised, women tend to be conservative (see e.g. Labov 1990, Holmes 1997, Woods 1997).

The study reported in this paper investigated the behaviour of women in some sound changes in New Zealand English (NZE). We wished to investigate whether women would carry the *white rabbit* phenomenon further and regularly be both innovative on non-stigmatised variables and simultaneously conservative on stigmatised variables. In order to do this we analysed the behaviour of individual speakers across variables and found that much clearer trends could be seen when we considered this behaviour rather than concentrating on results from groups of speakers for single variables.

Background

The material included in this study consisted of five phonological variables of NZE: three short front vowels (KIT, DRESS, and TRAP) and two closing diphthongs (PRICE and MOUTH).² The pronunciation of all these vowels has been changing for some time (see Bell 1997a, b, Trudgill, Gordon and

¹ The work reported here was carried out in conjunction with Elizabeth Gordon and Gillian Lewis of the Department of Linguistics at the University of Canterbury.

² Key words from the lexical set designed by John Wells (1982) are used to indicate the phonological variables under study here.

Lewis 1998, Maclagan and Gordon 1996, Woods 1997) but only PRICE and MOUTH are stigmatised within New Zealand.

The NZE front vowels DRESS and TRAP are raising and KIT is centralising. Although Australians are aware of these changes in NZE and treat them as humorous (see e.g. Buzo 1994), the changes still seem to be below the level of consciousness within New Zealand and are therefore not stigmatised in this country.³ It is therefore appropriate to speak of *conservative*, *neutral*, or *innovative* pronunciations of these variables. By contrast, certain variants of the closing diphthongs (PRICE and MOUTH) have been stigmatised since early this century (Gordon 1994, 1998). Because these variants of PRICE and MOUTH have been above the level of consciousness and stigmatised for so long, they could be regarded as stable sociolinguistic variables. However the realisations of the stigmatised variants of these diphthongs continue to change, so that pronunciations which used to be stigmatised are now relatively neutral. Because of this we can again refer to *conservative*, *neutral*, or *innovative* pronunciations of the closing diphthongs as well as of the front vowels.

Methodology

Data for this study were collected by students in the NZE course at the University of Canterbury between 1994 and 1997 (Gordon and Maclagan 1995). Speakers were chosen according to a speaker schedule which balanced gender, age and social class. Two age groups were included, a younger group aged 20–30 and an older group aged 45–60. Two social class groups were included. It is difficult to find unambiguous terms to refer to social class in New Zealand (see Pitt 1977 and the discussion in Gordon and Deverson 1998). In this paper, *professional* and *non-professional* are used rather than *upper* and *lower class* to describe social class distinctions. Speakers were divided into these classes on the basis of education and occupation (and parents' occupations for the younger speakers). The details of the 204 speakers analysed in this report are given in Table 1.

Speakers were recorded reading a comprehensive Word List which included variables relevant to NZE. It is hoped to analyse the casual conversation at a later date. The relevant sets in the Word List were:

- /ɪ/: hit, hid, hint
- /e/: bet, bed, beck, beg, Ben
- /æ/: bat, bad, back, bag, ban
- /aɪ/: tie, tied, tight, pie, pine
- /aʊ/: loud, lout, how, cow, town

³ The NZE centralised pronunciation of KIT is one of the main differences between NZE and Australian English. There are some indications that centralised pronunciations of KIT may actually be regarded as icons of NZE and therefore seen positively.

<i>Speaker Category</i>	<i>FOP</i>	<i>FON</i>	<i>MOP</i>	<i>MON</i>	<i>FYP</i>	<i>FYN</i>	<i>MYP</i>	<i>MYN</i>	<i>Total</i>
<i>Number</i>	23	28	26	25	23	25	28	26	204

M = male, F = female, Y = younger (age 20–30), O = older (age 45–60),
P = professional, N = non-professional

Table 1: Numbers of speakers

Each word was analysed auditorily and the variant was classified as conservative, neutral, or innovative. For KIT, conservative pronunciations approximated [ɪ], neutral ones, [ɜ], and innovative pronunciations were more open [ə], or farther back. For DRESS, productions below Cardinal 2, [e], were regarded as conservative, productions at Cardinal 2 were regarded as neutral and those above Cardinal 2 as innovative. For TRAP, productions below cardinal 3, [ɛ], were regarded as conservative, those at Cardinal 3 as neutral and those above Cardinal 3 as innovative. For PRICE, productions which started in a central open position, or more front, were regarded as conservative, those which started in an open back position as neutral and those for which the first element was raised, rounded and lengthened (so it moved towards [ɔ]) as innovative. For MOUTH, productions which started close to Cardinal 4, ([a]) or more centrally, were regarded as conservative, those which started close to [æ] as neutral and those which started at Cardinal 3 or above as innovative.

Speakers tended to produce similarly conservative, neutral, or innovative variants for all the words in a set and it was therefore possible to classify the speaker as using *conservative*, *neutral*, or *innovative* variants for each of the variables under study. Approximately 4,600 words were analysed. In order to check for consistency the 1996 data was reanalysed two years later. A level of agreement of above 90% was achieved.

Results for the five variables were analysed first for each speaker group. The individual speakers' behaviour across variables was then considered. Each speaker was identified as conservative, neutral, or innovative in their pronunciations for the front vowels as a whole and for the closing diphthongs as a whole. It was then possible to assess whether individual speakers produced similarly conservative, neutral, or innovative versions of the front vowels and of the closing diphthongs.

Results: considering data for each of the speaker groups

Results for the groups of speakers will be presented first for each of the five variables. Speakers were classed as conservative, neutral or innovative depending on the variants they used for each of the vowels. Tables 2 to 6 present the results for the five variables.

The younger non-professional speakers are leading the changes for the front vowels. For DRESS and TRAP a similar percentage of young

<i>Speakers</i>	<i>Number</i>	<i>Conservative</i>	<i>Neutral</i>	<i>Innovative</i>
FOP	23	30%	57%	13%
FON	28	25%	64%	11%
MOP	26	19%	69%	12%
MON	25	17%	71%	13%
FYP	23	9%	73%	18%
FYN	25	4%	56%	40%
MYP	28	11%	79%	11%
MYN	26	4%	69%	27%

Table 2: Percent pronunciation of KIT /ɪ/ by speaker groups

<i>Speakers</i>	<i>Number</i>	<i>Conservative</i>	<i>Neutral</i>	<i>Innovative</i>
FOP	23	9%	57%	35%
FON	28	11%	50%	39%
MOP	26	12%	62%	27%
MON	25	0%	60%	40%
FYP	23	4%	17%	78%
FYN	25	0%	24%	76%
MYP	28	7%	39%	54%
MYN	26	4%	8%	88%

Table 3: Percent pronunciation of DRESS /e/ by speaker groups

<i>Speakers</i>	<i>Number</i>	<i>Conservative</i>	<i>Neutral</i>	<i>Innovative</i>
FOP	23	52%	26%	22%
FON	28	38%	27%	35%
MOP	26	58%	31%	12%
MON	25	56%	28%	16%
FYP	23	30%	35%	35%
FYN	25	20%	44%	36%
MYP	28	48%	41%	11%
MYN	26	23%	38%	38%

Table 4: Percent pronunciation of TRAP /æ/ by speaker groups

women, both professional and non-professional, produce innovative tokens and for TRAP the older non-professional women also favour innovative pronunciations. This is typical of change that is below the level of consciousness and is not yet stigmatised (Labov 1990). For all speaker groups,

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more women than men produce innovative variants for DRESS and TRAP indicating that women are in the lead for the raising of these front vowels. KIT produces a pattern that is more similar to patterns for stable sociolinguistic variables, with more older women, both professional and non-professional, producing conservative variants. Relatively more younger professional women than men produce innovative variants of KIT but the percentages are well below those for the younger non-professional speakers.

For the front vowels we thus get the expected patterns with the women, especially the younger women, producing at least as many as and often more innovative versions than the men. Women are in the forefront for front vowel change in NZE, along with the young non-professional males.

For the closing diphthongs there are the expected patterns for the older speakers, with more women, both professional and non-professional, producing conservative variants and fewer women producing innovative variants than the men. However the expected patterns break down for the younger speakers. Although fewer women than men produce innovative tokens of /ai/, slightly more men than women produce conservative tokens for this diphthong. For /au/ more of the younger men than women produce

<i>Speakers</i>	<i>Number</i>	<i>Conservative</i>	<i>Neutral</i>	<i>Innovative</i>
FOP	23	65%	30%	4%
FON	28	26%	56%	19%
MOP	26	48%	44%	8%
MON	25	4%	67%	29%
FYP	23	14%	86%	0%
FYN	25	4%	71%	25%
MYP	28	18%	71%	11%
MYN	26	8%	36%	56%

Table 5: Percent pronunciation of PRICE /ai/ by speaker groups

<i>Speakers</i>	<i>Number</i>	<i>Conservative</i>	<i>Neutral</i>	<i>Innovative</i>
FOP	23	62%	38%	0%
FON	28	15%	74%	11%
MOP	26	41%	56%	3%
MON	25	4%	70%	26%
FYP	23	16%	75%	10%
FYN	25	1%	79%	20%
MYP	28	31%	63%	6%
MYN	26	10%	66%	25%

Table 6: Percent pronunciation of MOUTH /au/ by speaker groups

conservative tokens, and more of the younger professional women than men actually produce innovative tokens. This is the reverse of the expected patterns, and could indicate that /au/ is no longer stigmatised for younger professional women, a result which is at variance with informal observations.

Results: Considering relative pronunciations for individual speakers

In order to check the results obtained from the groups of speakers, and especially to check whether the closing diphthongs are still stigmatised for the younger professional female speakers, the relative pronunciations across variables were examined for each individual speaker. That is, a check was made for each speaker of whether their diphthong pronunciations were more conservative than, similar to or less conservative than their front vowel pronunciations. A speaker may produce more conservative closing diphthongs than front vowels either by producing conservative variants of the diphthongs and neutral or innovative variants of the front vowels or by using neutral variants of the diphthongs and innovative variants for the front vowels. If the closing diphthongs, especially MOUTH, are still stigmatised for the younger female professional speakers, these speakers would be expected to produce diphthong variants which are *relatively more conservative* than their front vowel variants. These results are presented in Table 7.

From Table 7 it can be seen that, even though the younger professional females seemed to be less conservative than the younger professional males in their pronunciations of /au/ (see Table 6), nevertheless when individual speakers' relative pronunciations are considered, all groups of females are more conservative than their male peers. The two groups of professional females are overwhelmingly more conservative than the other speaker groups. Even though some younger professional females produce versions of MOUTH which fall into the innovative range, the majority of the speakers in this group still produce diphthong variants which are relatively more conservative than their front vowel productions.

Speakers	Number	Conservative	Neutral	Innovative
FOP	23	70%	26%	4%
FON	28	27%	54%	19%
MOP	26	32%	52%	38%
MON	25	8%	54%	14%
FYP	23	68%	18%	16%
FYN	25	36%	48%	21%
MYP	28	39%	39%	19%
MYN	26	12%	69%	

Table 7: Speakers whose diphthongs are more conservative, similar to or less conservative than their front vowels

The phenomenon can be seen more clearly if the percentage of speakers in each group whose diphthongs are less conservative than their front vowels is subtracted from the percentage whose diphthong pronunciation is more conservative than their front vowels to give an indication of the degree of relative conservatism for the speaker groups. This is shown in Figure 1.

Discussion

When groups of speakers are considered so that data is averaged, the details of the behaviour of individual speakers is necessarily lost. For many purposes this may not matter. However as was seen in the consideration of the younger professional women's pronunciations of MOUTH for NZE (see

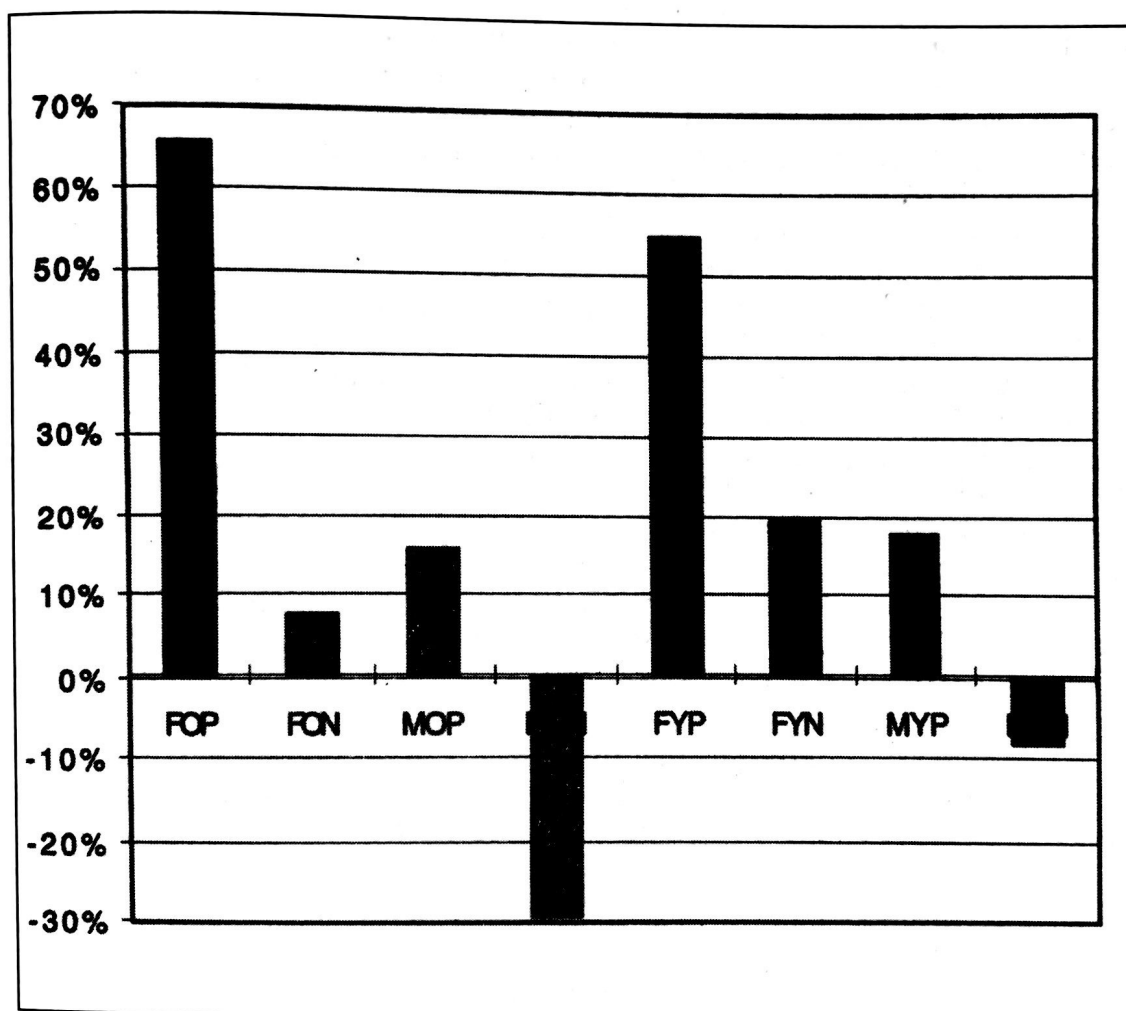


Figure 1: Relative conservatism of speakers in each group: relative percentage of speakers whose diphthong pronunciations are more conservative than their front vowels

Table 6) the use of grouped data can give a wrong impression of the course of a sound change. Because fewer young professional women than men actually use conservative pronunciations (see Table 6) it could seem likely from the grouped data that MOUTH is no longer stigmatised for young speakers. If this were correct, it would be important because it would break a tradition of complaints about pronunciations of the MOUTH diphthong that is nearly a century old. However when the relative pronunciations of individual speakers across variables are considered, two groups stand out as using more conservative versions of the closing diphthongs than of the front vowels: the professional women, both older and younger. This is in accord with the expectation that professional women will be more conservative in their pronunciations of potentially stigmatised variables. A focus on individual behaviour thus gives a more accurate picture of the overall pattern of sound change and confirms that the long-standing stigmatisation of variants of the closing diphthongs still holds for NZE.

The apparent problem with MOUTH, and to a lesser extent PRICE, occurs because, even though these diphthongs form part of a stable sociolinguistic pattern, the realisations of their starting points have continued to shift (see also Woods 1997).⁴ Conservative variants of MOUTH with open first elements ([a]), which are used by 62% of the older professional women and 41% of the older professional men, are used by relatively few of the younger professional women (16%) and somewhat more of the younger professional men (31%). Seventy-five percent of the younger professional women use a neutral starting point, [æ]. Nevertheless, 68% of the young professional women still use versions of the front vowels which are more innovative than their versions of the closing diphthongs, thus indicating that the innovative variants of the diphthongs are still stigmatised for them. By contrast, only 39% of the younger professional men use diphthong variants which are more conservative than their front vowel variants. These differences between the younger professional speakers are highlighted when the percentage of speakers who use relatively less conservative diphthongs is subtracted from the percentage who use relatively more conservative diphthongs as in Figure 1.

Figure 1 also indicates that both groups of non-professional men use relatively more innovative diphthongs than front vowels. Because the innovative forms of the diphthongs are used by the *non-professional* men,

⁴ The present paper does not consider the other source of variation in the pronunciation of MOUTH: whether the second element is rounded ([u]) or unrounded ([ə]). The evidence to date indicates that older speakers and the younger professional females use rounded second elements and younger speakers (except the professional females) use unrounded elements. This would support the conservative nature of the younger professional females' pronunciations. (Maclagan, Gordon and Lewis, submitted.)

this emphasises that the changes in question are changes from below (Labov, 1990, 1994).

When the behaviour of the younger and older non-professional males is considered, the timing of the various sound changes is highlighted. The raising of the front vowels has happened more recently than the variation in the starting points of the closing diphthongs which was noted by the start of this century. Therefore relatively fewer of the older than the younger non-professional men use innovative pronunciations of the front vowels. When the non-professional men are considered in Figure 1, the percentage of speakers whose diphthongs are less conservative than their front vowels appears to decrease. This apparent decrease is caused by the change in the front vowels: the younger non-professional men appear to be relatively more conservative than their older counterparts because of the recent raising of the front vowels, not because younger non-professional men have become more conservative in their pronunciations of the diphthongs.

Although the younger non-professional females are in the lead for the front vowel changes (see Tables 2-4) and use nearly as many innovative variants for MOUTH as their male peers (see Table 6), they nevertheless draw back and still use relatively more conservative pronunciations of the diphthongs than the front vowels. Even these non-professional women are more conservative than their male peers with potentially stigmatised variables like the closing diphthongs.

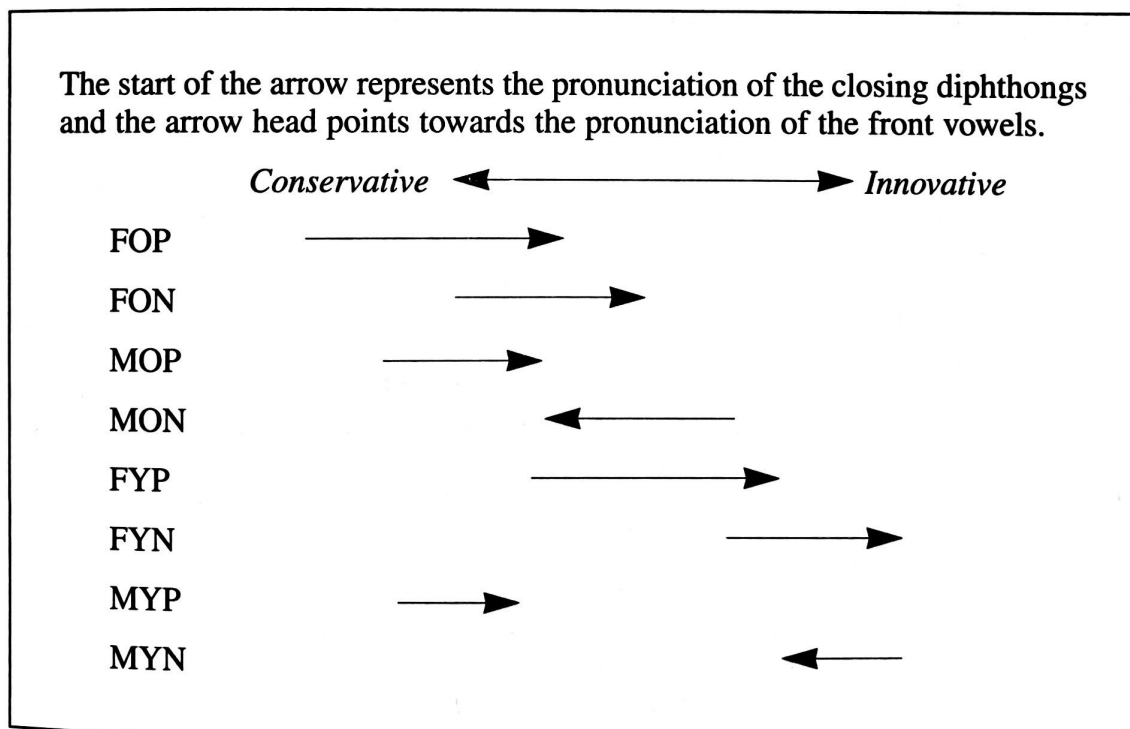


Figure 2: Schematic representation of the pronunciation of the closing diphthongs and front vowels for the speaker groups

These relationships are represented schematically in Figure 2. This figure shows the on-going change in both the front vowels and the closing diphthongs across the age groups. It demonstrates that the younger professional females, like their older counterparts, still use more conservative diphthongs than front vowels, and that the younger non-professional males produce much more innovative front vowels and somewhat more innovative closing diphthongs than their older counterparts. It also shows that the younger non-professional females produce less innovative diphthongs than their male counterparts.

Conclusion

The results of the study reported here demonstrate that, in sound change in NZE, women are simultaneously innovative with some variables (KIT, DRESS and TRAP) and conservative with others (PRICE and MOUTH). They highlight the fact that, although all the women in the study demonstrated this behaviour, it was most marked for the higher social class professional women. The results show that the closing diphthongs are still stigmatised in NZE and emphasise that the on-going changes in their starting points must be taken into consideration. In particular, these results emphasise the importance of considering the relative pronunciations of individual speakers rather than considering only grouped data.

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