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# CLASS AND CHANGE IN NEW ZEALAND ENGLISH: A SUMMARY REPORT

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## Background

The rapid advances made by sociolinguistics since Labov's pioneering work of the early and middle 1960s are so well-known as to make any review here unnecessary; however, to my knowledge quantitative studies of linguistic variability are only just beginning to be carried out in New Zealand to any significant extent.[1] This paper is a summary of results of a pilot study which I first presented at the Sixth New Zealand Linguistics Conference in 1985; while it is a much shortened version of the earlier paper, it is based on a considerably enlarged and more representative sample of informants (141 as opposed to 96 in the earlier paper).

Over the past few years I have gained the intuitive impression that considerable change is taking place in New Zealand English (NZE), both in terms of lexical replacement and in the pronunciation of certain lexical items; e.g., casual polling of students in my Stage I and Stage III linguistics lectures suggested that many students now use Standard American English (SAE) rather than Standard English English (SEE) pronunciations of words like *lieutenant* and *schedule*. I was also interested in ascertaining if there were significant and consistent class-sensitive distinctions in the NZE accent, and the extent to which these were correlated with each other. In addition, NZ would seem to provide an ideal case of a relatively isolated nation-state undergoing rapid socioeconomic change as it continues to move away from a semi-dependent relationship with a European-oriented UK toward a more independent economic and cultural stance.

The goals of this research were thus not limited to testing the hypothesis of increasing SAE influence on lexicon and pronunciation of certain lexical items; they also included an attempt to investigate phonological and lexical change in general, as well as to verify--at least in a preliminary and tentative sense--that there are in fact sociologically sensitive linguistic variables in NZE, and that these reflect socioeconomic differences. This study thus falls more or less

in the second of Trudgill's three categories of sociolinguistic endeavour in the general sense: i.e., it is 'both sociological and linguistic in intent' (Trudgill 1983:3), although certainly with more emphasis on the social side. I realise that I have attempted here to condense a large amount of data and analysis into a relatively small space; I hope to remedy this by publication of full data in book form in the near future.

**Methods**

I initially collected responses to a short (8-variable) questionnaire answered by 254 undergraduate students and 14 graduate students and staff in mid-1984. This was designed as a 'quick and dirty' test of pronunciations of *lieutenant*, *schedule*, and *often*, as well as degree of /ʌ/ retention in NZ. While it did indicate a shift from SEE to SAE models in the pronunciation of two lexical items (i.e., *loo-* and *sked-* were preferred by 70-75% of speakers under 30) and a marked decline in /ʌ/ retention with decreasing age, it obviously could not be viewed as a reliable sample. The results discussed here are based on a considerably longer (over 100 variables) questionnaire administered to a smaller number of informants covering a wider socioeconomic range. The written portion of the questionnaire obtained data on the informant's age, geographical and educational background, and occupation; it also requested data on age, occupation, origin, and accent of parents. It then asked for the most commonly used alternative of some 27 pairs of words, most of which I felt may be in transition from SEE or older NZ models to SAE models (*lift/elevator*, *torch/flashlight*, etc.), as well as a few where the transition has already taken place (*lorry/truck*, *wireless/radio*). It is of some interest to observe that the American alternatives of many of these have already found their way into the *New Zealand Dictionary* (Orsman 1982) without an 'American' label (e.g., *flashlight*, *gas*, *muffler*, *elevator*, *sweater*, dollar *bill*). This list also attempted to span a wide range from terms now obsolete or almost so in both the UK and NZ (*benzine*); through terms in use here but not in the UK (*footpath*) and terms now old-fashioned in the US (*pictures*); it as well had several items which I assumed might be class- or context-sensitive (*serviette/napkin*, *knickers/panties*, *plug/power point*). Such an eclectic selection seemed justified in an exploratory study of this sort.

Informants were then asked to go through the same list a second time and indicate which alternative they felt was 'better English'; as the term is of course linguistically meaningless in this context, I could supply no definition of what was meant by

'better', even when one was requested. What I was hoping to elicit was the informants' subjective judgement on which of the pair was more 'polite', 'formal', 'socially acceptable', or 'better usage', or a combination of these; hence the term was intentionally left undefined.

The written questionnaire was supplemented by normal-speed and slow readings of a brief passage designed to include at least two possible occurrences each of members of Wells' 27 lexical sets (Wells 1982:127-68), as well as testing for /ʌ/ loss or retention (WWH) and a zero plural of *woman* (WOWI); the slow reading was omitted in some cases where reading difficulties were encountered. The values of interest here were the four 'stigmatised' diphthongs (AU) (AI) (EI) (OU), as well as (I). Lastly, a series of word lists were included to test for features of NZ English which had been postulated in earlier discussions of NZE phonology (chiefly Hawkins 1973a, b, and Hawkins 1976, as discussed in Wells 1982:608-09; also note that most of these features have since been discussed in Gordon and Deverson 1985, and most thoroughly in Bauer 1986). These are /-l/ dropping (L); merger of *dole/doll* (OL); merger of *fellow/fallow* (AEL); and merger of *bear/beer* (EAR). Other features looked for were disyllabic pronunciation of past participles like *grown, known*; yod dropping; a tapped [ɾ] realisation of medial /-t-/; and a few other items also not yet analysed. A final series of 17 words tested for the presence of SEE-like or SAE-like pronunciations of items like *herbs, vitamin, garage*, and the like, as well as other possibly class-sensitive alternative pronunciations such as *interesting, controversy*. Space limitations prevent inclusion of the reading passage and word lists here; they may be obtained from the author, as may full details of the values employed for the 119 variables used in the study.

In general scoring was made on an ordinal scale ranging from 1 ('innovative'/SAE-GenAm) to 4 or 5 ('conservative'/SEE-RP-older NZ). I realise that the 'innovative'-'conservative' gradient is very far from a precise one, but intend it only as a general guideline. Similar ordinal scales were used for the sociological variables; the occupational classifications are approximately those of Elley and Irving (1972), but their classes 5 and 6 are lumped together here as class 1. The concepts of 'socioeconomic index' and 'class' used here are of course simplistic and unsophisticated, but as Chambers and Trudgill put it 'linguists have normally taken a relatively elementary approach to classifying informants, particularly as this has produced very satisfactory results' (1980:59). Readers can judge for themselves whether such is the case in this study.

In all, 156 informants completed questionnaires and were taped (about four minutes per informant). Some 15 speakers with UK (8), North American (6), and Australian (1) accents were included in the sample for comparative purposes, but were of course excluded from the analysis. The final sample used here thus consists of 141 informants who could be classified as NZE speakers. Even this extended sample is obviously far from defect-free. It is not a randomly selected one such as the now-classic studies of Labov (1966) and Trudgill (1974) used, but is fairly biased toward the upper end of the socioeconomic scale (Table I). The age balance of the sample is relatively good, with at least 10 informants in each decade save for 40-49 and 70+; the 20-29 decade is of course over-represented, but this seems justifiable in that many of the changes discussed here would seem to be occurring in this age group, and the large sample allows representation of the full socioeconomic range. The other age groups are of course less fully represented in terms of the socioeconomic index (SEI) used here, which was derived by a method similar to Trudgill's Norwich study (1974) by simply summing scores for education (ED), occupation (OCC), and private schooling (PVT). Again following Trudgill, housewives/husbands and school children were assigned spouse's or parent's occupational score.

TABLE I

NZE SAMPLE BY AGE GROUP AND SOCIOECONOMIC INDEX

| SEI: | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGEGR: | | | | | | | | | | | | NO. | % |
| 6-11 | - | 4 | 1 | 4 | 11 | - | - | - | - | - | - | 20 | 14.2 |
| 12-19 | 5 | 2 | 3 | 1 | 2 | - | 1 | - | 2 | 3 | - | 19 | 13.5 |
| 20-29 | 1 | 3 | 5 | 3 | 2 | 6 | 8 | 4 | 7 | 5 | 1 | 45 | 31.9 |
| 30-39 | - | - | 1 | 3 | 4 | 2 | 3 | - | 4 | 1 | - | 18 | 12.8 |
| 40-49 | - | 1 | 2 | 4 | 2 | - | 1 | 1 | 2 | - | 2 | 15 | 10.6 |
| 50-59 | - | 3 | - | 2 | - | 1 | 1 | - | - | - | - | 7 | 5.0 |
| 60-69 | - | 1 | 1 | - | 2 | - | 2 | 3 | - | - | 1 | 10 | 7.1 |
| 70-74 | - | 2 | - | - | 3 | - | 1 | 1 | - | - | - | 7 | 5.0 |
| NO. | 6 | 16 | 13 | 17 | 26 | 9 | 17 | 9 | 15 | 9 | 4 | 141 | |
| % | 4.3 | 11.3 | 9.2 | 12.1 | 18.4 | 6.4 | 12.1 | 6.4 | 10.6 | 6.4 | 2.8 | | 100% |

The problems caused by selection of informants on relative convenience (albeit with a conscious attempt to cover a wide range of occupational and educational backgrounds), rather than use of the electoral rolls, etc., to ensure a truly random sample, are partially compensated for by the more relaxed environment offered by familiarity with the interviewer; some 79 of the 95 recordings made in the field were carried out by a friend or relative of the informant. But even given this more

relaxed environment, the tapes obviously reflect only upper-register usage (i.e. reading passage, word list, and minimal pair styles), and trends may well be more marked in formal and especially casual registers; however, the assumption that there is a single Labovian continuum of registers eliciting the full vernacular-to-prestige range of values of a sociolinguistic variable is just that: an assumption. Recent studies suggest that there are many exceptions to the general trend (Milroy 1980:100-1; Cheshire 1982:130-1). In any event, it seems clear that the variables isolated here may best be considered 'indicators' rather than 'markers' in Labov's terminology (1972:237), although some doubtless also function as stylistic markers.

I should add that I would not want to claim absolute phonetic accuracy for the values recorded for the phonological variables; however, the starting values for the diphthongs (see Appendix) are quite close to those suggested for 'broad NZ', 'general NZ', and 'RP' by Maclagan (1982) and Gordon and Deverson (1985:22-23), and I feel secure that the values recorded have a high degree of relative accuracy and consistency, if not expressed with absolute accuracy by the IPA symbols I employ. As a speaker of a /ʌ/-retentive GenAm accent I am sensitive to the other phonological variables, as all are distinguished in my accent. For example, in listening to readings of a list of 25 context-free words by myself and an 'upper-middle-class' NZ graduate student, a group of 25 Stage III students was able to discriminate correctly between such pairs as *Ellen/Alan* and *dole/doll* to a far greater degree when read in my GenAm accent (60% vs. 30% for *Ellen*; 92% vs. 70% for *Alan*; 68% vs. 22% for *dole*; only with *doll* were the scores higher for the NZE speaker: 44% vs. 61%).

Hence I think it is fairly safe to conclude that the results presented below have more than mere suggestive value, although they are not meant to be definitive. Some readers may be concerned by the size of the sample; however, Labov's classic New York City study relied in the main on 122 informants, and Trudgill's study of Norwich on 60. In order to test for representativeness in the present sample, I drew a randomly selected subsample of 72 informants from the total of 141; a very similar pattern of correlation between sociological and linguistic variables resulted. Thus the sample is if anything somewhat larger than absolutely necessary for a pilot study such as this.

## Results: class and phonological variables

The coded data from the long questionnaire and score sheets evaluating the tape samples were entered on the University's VAX computer and analysed by several techniques commonly used in archaeology and the social sciences in general. The techniques included simple derivation of correlation coefficients and their significance levels, factor analysis, chi-square, analysis of variance using SPSS[x] BREAKDOWN, and discriminant analysis. As the variables involved are ordinal rather than interval (with the exception of age, of course), Spearman rank-order coefficients ($\rho$) have been used rather than Pearson's $r$ (cf. Fasold 1984:105). The various sociological variables predictably correlated well with each other and with the equivalent variables for parents, lending considerable support to the use of 'SEI' and 'class' in the elementary sense employed here.

The tape data provided objective verification for phonological features postulated by Hawkins (1973a, b) and summarised by Wells (1982:608-9), Gordon and Deverson (1985:21-26), and Bauer (1986). The influence of /-l/ on preceding vowels (variables AEL, OL) was particularly noticeable; L-dropping (L) was also recorded for 16% of the sample, with reduced /-l/ (as in my pronunciation of *gulf*: [gʊˈf]) for a further 26% (cf. Bauer 1986:20). Over half of the sample showed either total or nearly total 'air-ear' merger in the (EAR) variable, and only 21% of the sample showed unselfconscious /ʌ/-retention. Yod-dropping after resonants and alveolar/palatal fricatives is also the norm, with less than 10% retention. More importantly for this study, all of these features showed medium to strong correlation with most if not all of the sociological variables. This can be most easily expressed as a correlation table (Table II); I have also included the alternative pronunciation variable (WOWI).

It seems clear that the phonological variables are socially significant; the derived socioeconomic index (SEI) correlates positively with all but (WWH), while the latter correlates strongly with age. The phonological variables (in particular the diphthongs) also correlate with each other. When the mean values for the variables are plotted against the SEI (which ranges from a value of 3 to 13; Figures 1 and 2), a marked increase in 'conservative' values can be seen in the SEI 5 to 7 range. All variables show an overall increase with increasing SEI values save (WWH), which peaks at SEI level 10 and then declines sharply at SEI 11-12 to rise again at SEI 13. The diphthongs (OU) (EI) (AU) (AI) (I) show a fairly even

**TABLE II**

**CORRELATION COEFFICIENTS FOR PHONOLOGICAL VARIABLES WITH SOCIOLOGICAL VARIABLES**

**(decimal point omitted, two decimal places shown; significance [2-tailed t test] shown only when at 95% confidence level or above; see Appendix for abbreviations)**

| | SEI | AGE | SEX | URBR. | OU | EI | AU | AI | I | AEL | OL | L | EAR | WWH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGE | 12 | | | | | | | | | | | | | |
| SEX | -09 | 02 | | | | | | | | | | | | |
| URBR. | 19 | 10 | -06 | | | | | | | | | | | |
| | 02 | | | | | | | | | | | | | |
| OU | 35 | 01 | 18 | 06 | | | | | | | | | | |
| | 00 | | 03 | | | | | | | | | | | |
| EI | 22 | 05 | 19 | -09 | 53 | | | | | | | | | |
| | 01 | | 02 | | 00 | | | | | | | | | |
| AU | 37 | 03 | 14 | 01 | 61 | 57 | | | | | | | | |
| | 00 | | | | 00 | 00 | | | | | | | | |
| AI | 24 | 15 | 22 | 02 | 48 | 49 | 62 | | | | | | | |
| | 00 | | 01 | | 00 | 00 | 00 | | | | | | | |
| I | 39 | 32 | 06 | 06 | 34 | 35 | 42 | 55 | | | | | | |
| | 00 | 00 | | | 00 | 00 | 00 | 00 | | | | | | |
| AEL | 47 | 07 | -14 | 18 | 28 | 21 | 19 | 14 | 29 | | | | | |
| | 00 | | | 04 | 00 | 01 | 02 | | 00 | | | | | |
| OL | 24 | 24 | -10 | 09 | 17 | 25 | 17 | 29 | 32 | 32 | | | | |
| | 00 | 00 | | | 04 | 00 | 05 | 00 | 00 | 00 | | | | |
| L | 34 | 33 | 02 | 19 | 22 | 14 | 18 | 22 | 34 | 27 | 29 | | | |
| | 00 | 00 | | 02 | 01 | | 03 | 01 | 00 | 00 | 00 | | | |
| EAR | 34 | 35 | -12 | 15 | 17 | 24 | 14 | 20 | 41 | 48 | 29 | 31 | | |
| | 00 | 00 | | | 05 | 00 | | 02 | 00 | 00 | 00 | 00 | | |
| WWH | 03 | 58 | 07 | -07 | 11 | 14 | 12 | 15 | 24 | 08 | 08 | 19 | 30 | |
| | | 00 | | | | | | | 01 | | | 03 | 00 | |
| WOWI | 22 | 36 | 07 | 05 | 19 | 32 | 22 | 31 | 31 | 31 | 18 | 27 | 38 | 38 |
| | 01 | 00 | | | 03 | 00 | 01 | 00 | 00 | 00 | 03 | 00 | 00 | 00 |
| | SEI | AGE | SEX | URBR. | OU | EI | AU | AI | I | AEL | OL | L | EAR | WWH |

increase, while the other phonological variables plus (WOWI) are less regular.

The zero plural of *woman* (i.e. (WOWI) values 1-2 and probably 3 as well) is an interesting variable. While marking of the plural is quite positively correlated with age, it is also positively correlated with higher SEI ($p = .009$); fully 67% of the sample used the zero form on first reading the text sample, and I would thus conclude that its use in everyday speech is at about the 80% level among NZE speakers under 40.

Several stepwise discriminant analyses were carried out to determine the degree to which this technique could predict class membership on the basis of the phonological variables alone. The variables included were those which seem to have the greatest social significance as shown by their correlation with

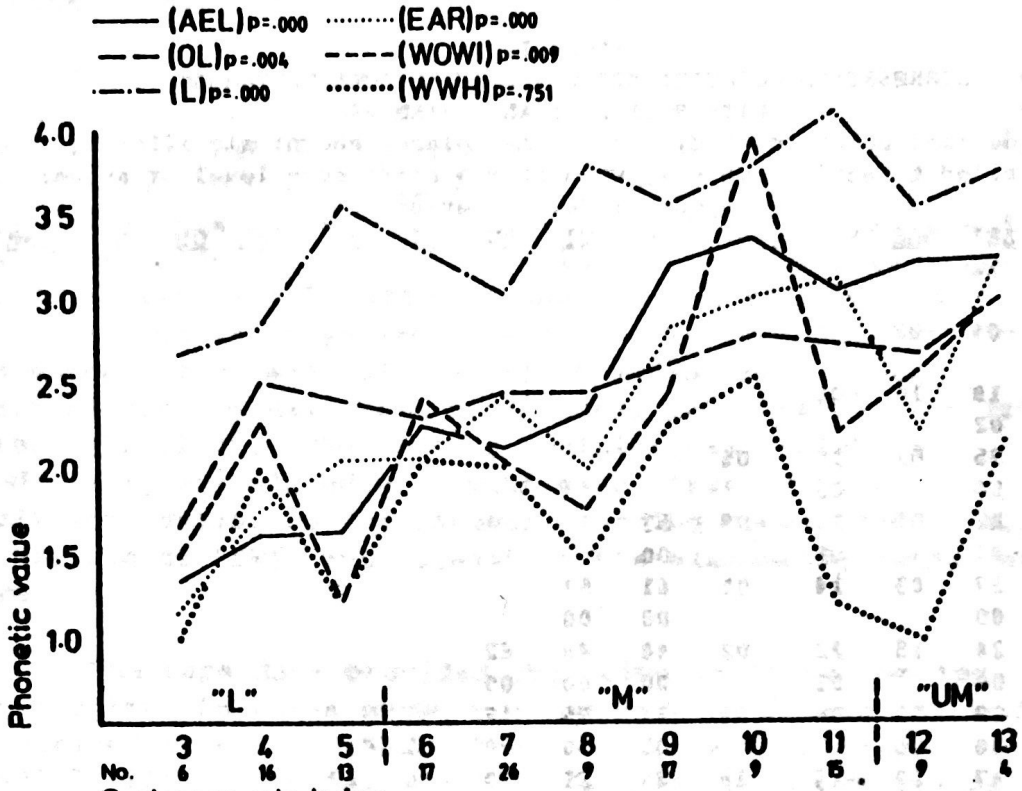



Fig.1 Mergers and L-dropping by socioeconomic index

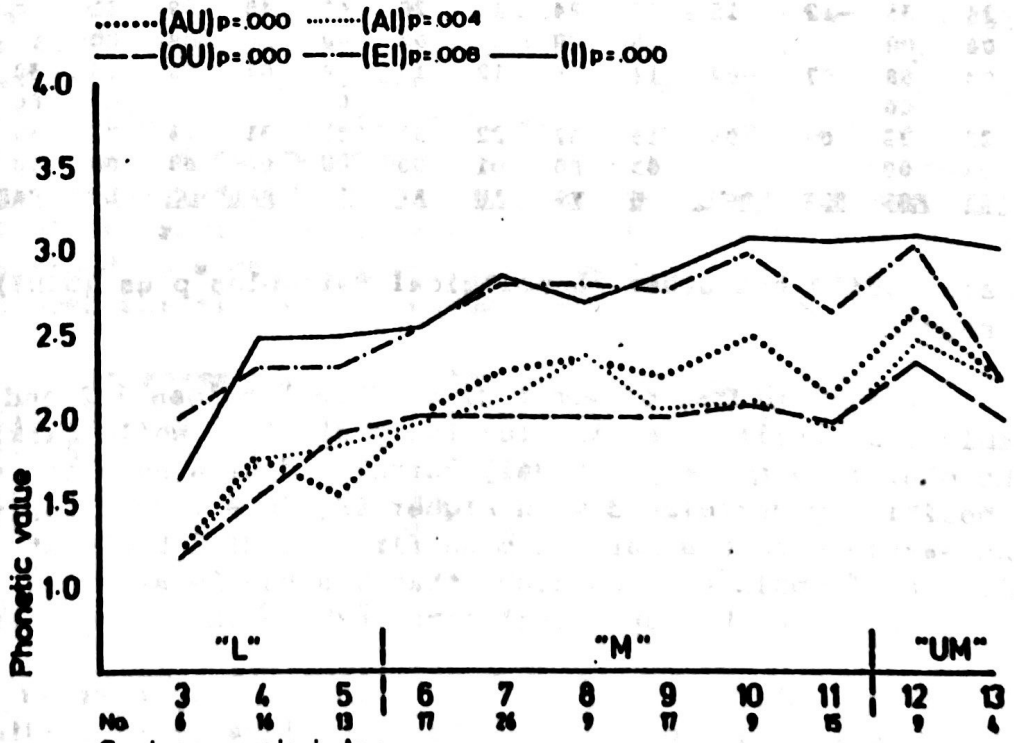



Fig.2 Diphthong variability by socioeconomic index

SEI; the analyses ranked these (in descending order) as (AEL) (AU) (OU) (EAR) (I) (AI) (OL) (EI) (L), but only the first four were included in the analyses; I should add that this contradicted my own intuitive impression that (AI) would be one of the more sensitive variables. The remaining six phonological variables had little discriminating power. A discriminant analysis including the nine significant variables, with the boundary between 'lower' and 'middle' class set at SEI 5/6, gave fairly clear-cut results: 'lower' and 'middle/upper middle' informants were classified correctly in 83.2% of cases, and a three-way analysis assigned 73.0% correctly. I think most would agree that social stratification here is not as clearly marked as in the UK, and this is reflected in the overlaps present in the groups defined for the last two analyses: while the two-class analysis defined 95% of the 'middle/upper middle' group correctly, 53% of the 'lower class' were included as well. Similarly, while the 'lower class' group was assigned with 47% correctness and the 'middle class' with 93% in the three-class analysis, the 'upper middle' group was totally incorrect; all were placed in the 'middle' group. In short, while this study supports the presence of 'lower' and 'middle' socioeconomic classes in New Zealand, there is obviously considerable overlap. The 'upper middle' class arbitrarily defined here is supported only by the percentage figures given below, and not by discriminant analyses.

To try to give some more concrete representation to the tables of correlation coefficients presented above, percentages of the values (see Appendix) of the six most significant variables, as well as for (WWH), (OL), (OWEN), and the alternative pronunciations (WOWI), (LOO), and (EITH), are given in Table III for lumped socioeconomic class ('lower' = SEI 3-5, 'middle' = SEI 6-11, 'upper middle' = SEI 12-13). The boundaries are those which produced the most satifying results in the discriminant analyses, and are definitely *not* to be interpreted as 'socially "real" ' or 'part of the objective structure of society' (Hudson 1980:166). Socioeconomic class in NZ is very likely better viewed as a continuum with few clear-cut breaks (unlike the UK situation), and the breaks mentioned below refer only to the divisions used here. A redefinition of 'class' boundaries using different SEI cutting marks would doubtless produce different results, although the overall trends (as reflected in the correlation coefficients) would be similar.

It is obvious that many of the variables, including the alternative pronunciation variables, show a fairly even progression from 'innovative/non-RP' to 'conservative/RP' values

TABLE III

PERCENTAGES BY CLASS FOR SELECTED

PHONOLOGICAL AND PRONUNCIATION VARIABLES

(see Appendix for abbreviations and values)

| VARIABLE | (AU) | | | | (AEL) | | (L) | | (OU) | | | | (EI) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VALUE | 1 | 2 | 3 | 4 | 1-2 | 3-4 | 1-2 | 3-4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| CLASS: | | | | | | | | | | | | | | | | |
| LOWER | 43 | 51 | 6 | 0 | 77 | 23 | 23 | 77 | 40 | 60 | 0 | 0 | 3 | 68 | 29 | 0 |
| MIDDLE | 12 | 56 | 32 | 0 | 44 | 56 | 15 | 85 | 10 | 79 | 11 | 0 | 2 | 41 | 45 | 12 |
| UPPER MIDDLE | 0 | 54 | 46 | 0 | 23 | 77 | 8 | 92 | 0 | 77 | 23 | 0 | 0 | 39 | 46 | 15 |

| VARIABLE | (I) | | | | (EAR) | | (WWH) | | (OL) | | (OWEN) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VALUE | 1 | 2 | 3 | 4 | 1-2 | 3-4 | 1-2 | 3-4 | 1-2 | 3-4 | 1-2 | 3 | 4 |
| CLASS: | | | | | | | | | | | | | |
| LOWER | 17 | 37 | 43 | 3 | 74 | 26 | 83 | 17 | 66 | 34 | 44 | 3 | 53 |
| MIDDLE | 2 | 26 | 60 | 12 | 44 | 56 | 70 | 30 | 52 | 48 | 20 | 6 | 74 |
| UPPER MIDDLE | 0 | 8 | 77 | 15 | 38 | 62 | 85 | 15 | 38 | 62 | 15 | 8 | 77 |

| VARIABLE | (WOWI) | | | (LOO) | | (EITH) | | (AD) | | (PRIV) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| VALUE | 1-2 | 3 | 4 | 1 | 4 | 1 | 4 | 1 | 4 | 1 | 4 |
| CLASS: | | | | | | | | | | | |
| LOWER | 74 | 6 | 20 | 86 | 14 | 89 | 11 | 50 | 50 | 97 | 3 |
| MIDDLE | 50 | 15 | 35 | 67 | 33 | 52 | 48 | 14 | 86 | 82 | 18 |
| UPPER MIDDLE | 38 | 8 | 54 | 23 | 77 | 31 | 69 | 8 | 92 | 69 | 31 |

as they move up through the arbitrarily defined 'classes'. However, some like (OU), (EAR), (OWEN), (OL), and (AD) show a fairly sharp break between 'lower class' and the two 'middle classes'. In contrast to these variables, (WWH) has its highest 'conservative' percentage (still a minority, of course) in the 'middle class'. I find it intriguing that the alternative pronunciation variable (EITH) is also highly class-sensitive,

with a pattern similar to (LOO). Both pronunciations have of course been common here for many years, as in the UK; however, Wall's prediction that the /aɪ/ form 'will probably prevail in the long run' (1941:54) seems unlikely in view of the fact that only 40.7% of the total present sample used it, including three-quarters of the 'upper middle class' informants. (PRIV) is also class-sensitive, although the 'innovative' pronunciation is clearly preferred by all three of the 'classes' defined here.

**Age**

The age plot portrayed in Figure 3 is quite similar to that of SEI on Figure 1 for mergers and L-dropping; (AEL) merger is fairly constant across the age groups, but 'innovative' values for (WWH) and (L) seem significantly greater for those under 50 and 20 respectively. (EAR) merger increases markedly in the 20-59 group, and increases again in the under-20s; with the exception of the 60-69 group, (AEL) merger remains fairly constant. Although several informants mentioned that they had been taught that (WWH)-4 was the 'correct' sound in school, this has not been Education Department policy for at least the past 50 years,[8] and the distinction seems almost certain to vanish as an effective contrast in normal NZ English in the next 30 years or so, as it has largely done in southern England and is in the process of doing in the US (Conklin and Lourie 1983:122). Even in the late 1930s Wall, although approving of the maintenance of the 'traditional "wh"' on NZ radio, realistically concluded that 'most of those who are best qualified to judge think that the sound cannot be saved' (1941:5).

The (WOWI) plural marking of 'women' drops sharply from a value of about 3 for those over 40 to a value of 2 or less for younger speakers (a value of 3 would seem to indicate self-conscious use of the plural form in formal contexts, but very probably lack of marking in normal speech); this further suggests that the use of the unmarked form has a fair time depth, and is not a recent phenomenon. On television broadcasts I have occasionally heard the zero plural used by speakers well over 70, although its more widespread distribution may be a more recent phenomenon. The percentage of informants using (OWEN) 1, 2, or 3 shows a slight tendency to decline with increasing age, but the correlation is not significant ($\rho = +.144$, $p = .091$); as Gordon and Deverson state, this innovation (which is apparently limited to the past participles of strong verbs) seems to have been around for quite a while (1985:25). Table IV gives percentage figures by age group for some of the age-sensitive phonological and alternative pronunciation variables. The most significant of these latter variables is clearly (ZED); the

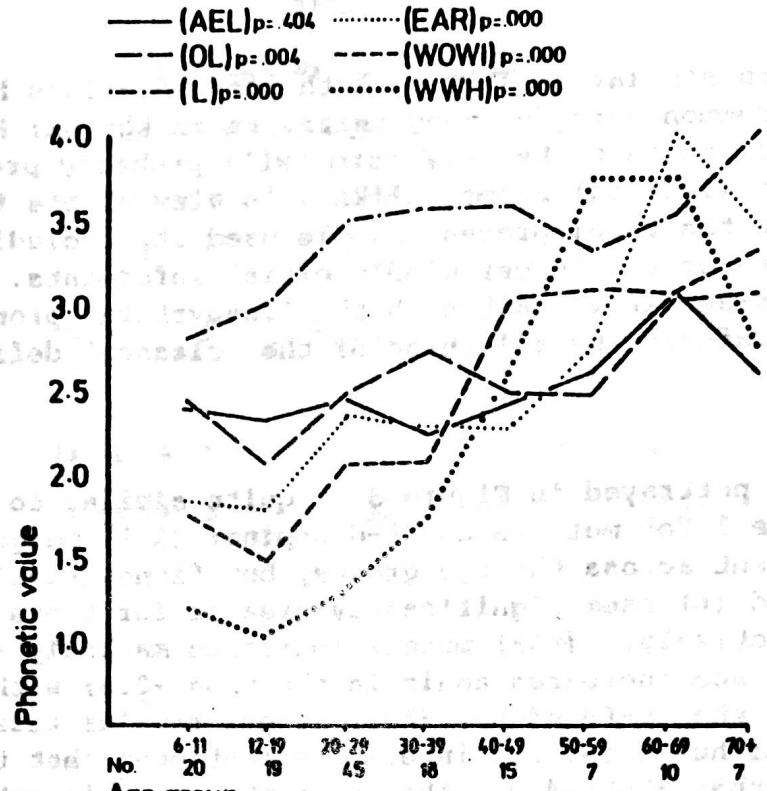



Fig.3. Mergers and L-dropping by age group.
Significance levels are for raw age, not age group.

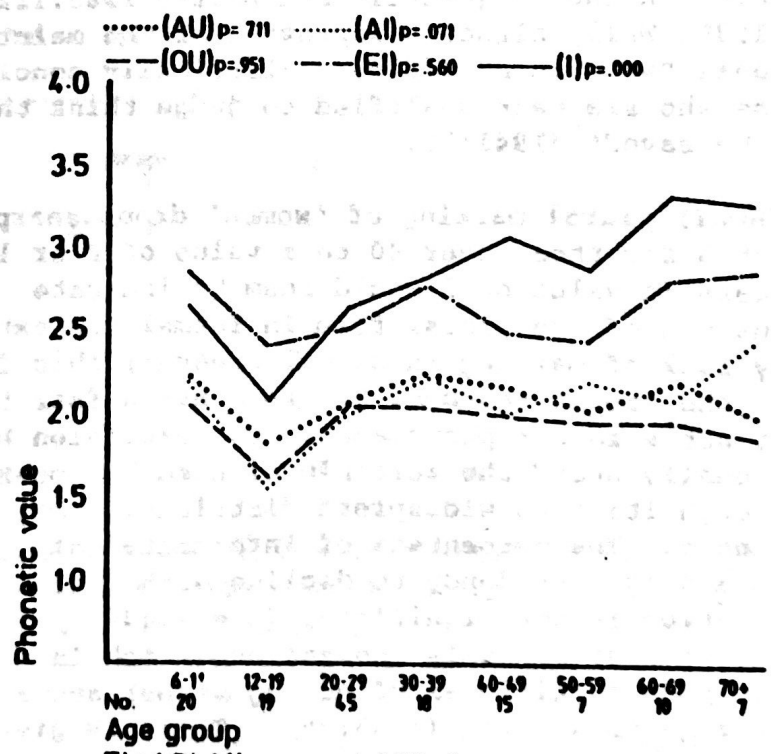



Fig.4. Diphthong variability by age group

figures are startlingly unambiguous. Of course it remains to be seen whether the majority of 'see-sayers' in the under-12 group retain this usage into adolescence (although the results mentioned in footnote 3 make it seem likely), and I plan to monitor this and other variables with these informants at two-year intervals. The pattern for (LOO) is similar to (SKED), but by no means as marked; it suggests that either *left-* has been the minority pronunciation here for quite some time, or that 'apparent time' is not quite the neat and tidy concept it appeared to be twenty years ago. It seems self-evident that old as well as young speakers can adopt innovations, particularly in lexis and pronunciation of certain lexical items, and I believe this to be the most likely alternative in this case. However, I must pass on the remark of one of my informants, in her mid-20s, that she had never heard *leftenant* as a child; this is borne out by the fact that her parents and maternal grandparents (also informants) said *lootenant* on the taped wordlist.

Finally, there appears to be a slight tendency for younger speakers to use somewhat less linking R; a chi-square significance of .01 was obtained for this variable compared to age group, but the Spearman correlation is not significant ($\rho$ = -.15, p = .078). No such relationship was present for the more stigmatised intrusive R.

The age distribution of the diphthong values (Figure 4) is much more even than their values for SEI groups; as Gordon's research (1983a, b) has shown, the 'colonial' NZ diphthong pattern, although deprecated, was well established here many years ago, and marked discrepancies in distribution by age would be unexpected. The exception is of course (I), which may best be considered a fifth diphthong currently gaining ground here among younger New Zealanders (as it has already done in Australia). The most marked feature of the age distribution is the marked peak in low 'innovative' values for all five diphthongs in the 12-19 age group. All five correlate strongly with SEI as well, and since this age group is the only one made up of a majority (52%) of 'LC' speakers the values simply follow suit. Similarly, the 6-11 age group values are shifted toward the 'conservative' side by the preponderance of 'MC' speakers in the sample (75%). If we smooth these peaks out, the overall distribution is very even, except for (I).

As with SEI, centralised low starting points for (EI) appear to be the most stigmatised by all age groups. It is necessary to emphasise again that the use patterns shown here reflect only the most formal of registers, and lower values of all five diphthongs are obviously more common in casual speech.

TABLE IV
PERCENTAGES BY AGE GROUP FOR SELECTED PHONOLOGICAL AND ALTERNATIVE PRONUNCIATION VARIABLES
(see Appendix for abbreviations and values)

| AGE GROUP: | | 6-11 | 12-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70+ |
|---|---|---|---|---|---|---|---|---|---|
| | (N= | 20 | 19 | 45 | 18 | 15 | 7 | 10 | 7) |
| (ZED) | 1 | 55 | 21 | 4 | 0 | 0 | 0 | 0 | 0 |
| (ZED) | 4 | 45 | 79 | 96 | 100 | 100 | 100 | 100 | 100 |
| (WWH) | 1-2 | 95 | 100 | 91 | 78 | 47 | 14 | 10 | 43 |
| (WWH) | 3-4 | 5 | 0 | 9 | 22 | 53 | 86 | 90 | 57 |
| (OL) | 1-2 | 60 | 74 | 60 | 39 | 67 | 57 | 10 | 14 |
| (OL) | 3-4 | 40 | 26 | 40 | 61 | 33 | 43 | 90 | 86 |
| (EAR) | 1-2 | 70 | 68 | 53 | 50 | 53 | 43 | 0 | 14 |
| (EAR) | 3-4 | 30 | 32 | 47 | 50 | 47 | 57 | 100 | 86 |
| (I) | 1-2 | 45 | 58 | 38 | 33 | 7 | 14 | 10 | 0 |
| (I) | 3-4 | 55 | 42 | 62 | 67 | 93 | 86 | 90 | 100 |
| (WOWI) | 1-2 | 70 | 84 | 58 | 55 | 27 | 29 | 30 | 29 |
| (WOWI) | 3 | 15 | 0 | 18 | 17 | 20 | 0 | 0 | 0 |
| (WOWI) | 4 | 15 | 16 | 24 | 28 | 53 | 71 | 70 | 71 |
| (SKED) | 1 | 71 | 82 | 53 | 39 | 21 | 43 | 10 | 0 |
| (SKED) | 4 | 29 | 18 | 47 | 61 | 79 | 57 | 90 | 100 |
| (LOO) | 1 | 100 | 81 | 73 | 72 | 53 | 71 | 10 | 57 |
| (LOO) | 4 | 0 | 19 | 27 | 28 | 47 | 29 | 90 | 43 |

Television commercials provide a good example of such 'covert prestige' (Trudgill 1983:169-85) usage, in particular those devoted to farming and sporting products; other more 'prestigious' items are narrated by speakers like Dougal Stevenson (who is an RP rather than NZE speaker according to the criteria used here). Further research into motives for selection of various points along what I have jocularly termed to students the 'Dagg to Dougal continuum' should prove interesting. This continuum is of course very similar to the 'broad-general-cultivated' one (Barry Crump to Sir John Marshall) adapted from the Australian situation (Mitchell and Delbridge 1965) by Gordon and Deverson (1985:67), although it remains to be determined exactly what such terms mean in the NZE context (Bauer 1986:9).

**Sex**

The only significant phonological correlations with sex were three of the five diphthongs, (OU), (EI), and particularly (AI); and the two R-insertion variables (Table V). Linking R (RLINK) in particular was used less often by women ($\rho$ = +.23, $p$ = .006); avoidance of intrusive R (RINT) was much more common with both sexes, but women seemed more sensitive to the stigma ($\rho$ = +.20, $p$ = .021). In the case of the three diphthongs women predictably used the more 'correct/conservative' or in Wall's term 'better' values of these than men. (AEL) had a significance level of only .095, but here, rather surprisingly, merger was more common with women. I had predicted a greater concern with plural marking of (WOWI) by women, but no significant correlation emerged ($\rho$ = .065, $p$ = .441), although the mean value of this variable was higher with women (2.32 as opposed to 2.15). A more detailed examination of the percentage figures by sex shows approximately equal values for use of (WOWI)-1/2 (here interpreted as unselfconscious use of the zero plural) with males at 56% and females at 53%; but an imbalance in the case of (WOWI)-3 (17% male/8% female) and (WOWI)-4 (27% male/39% female). I would tentatively interpret this as representing 'wimmen'-conscious males who are aware of the 'proper' form but do not normally use it in the first case; and 'wimmen'-conscious females who do attempt to use the marked plural in all contexts in the second. Obviously this will require far more rigorous confirmation!

TABLE V

SEXUALLY SIGNIFICANT PHONOLOGICAL VARIABLES

(BY PERCENT OF SEX USING EACH VALUE)

| | RLINK | | | | RINT | | | | AI | | | | EI | | | | OU | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| MALE | 57 | 41 | 29 | 25 | 86 | 42 | 51 | 31 | 69 | 41 | 42 | 17 | 100 | 49 | 47 | 8 | 61 | 45 | 23 | 0 |
| FEMALE | 43 | 59 | 71 | 75 | 14 | 58 | 49 | 69 | 31 | 59 | 58 | 83 | 0 | 51 | 53 | 92 | 39 | 55 | 77 | 0 |

A second alternative pronunciation which seems slightly sex-linked was (OFT); as in the earlier short questionnaire, women preferred the historically correct T-less version, while a relatively greater number of males used the spelling pronunciation. Some interesting differences are also apparent in lexical usage and preference. Females are slightly more conservative in usage; however, they are noticeably less secure, as has of course been found in many other studies (cf. the

Spender-Trudgill debate, summarised in Trudgill 1983:161-68). The 32% lead in insecurity found in this study is of course not as great as the 50% encountered by Labov for women in his NYC sample (1966:478), but is still worth noting. Interestingly, females are 56% more innovative on the innovative/conservative index than males, perhaps suggesting that the 'innovative' lexical alternatives are considered more 'correct'. Given the general trend apparent in the overall results of this study, it is not surprising that both sexes are on the innovative preference (negative) side of the scale.

**Alternative pronunciations**

The 18 alternative pronunciation items, like the lexical pairs, were chosen for several reasons. Firstly, I was interested in ascertaining the degree of shift to SAE pronunciation models in such words as *schedule*, *lieutenant*, *dynasty*, and *Z*. Secondly, I was attempting to find traces of incipient changes of a similar nature in cases where I had never heard an 'American' pronunciation used by native New Zealanders (e.g., *been*, *herbs*, *tomato*, *garage*). Finally, items such as *interesting*, *vitamin*, *privacy*, *often*, *controversy*, *migraine*, and *medicine* were included to test for class variation. Obviously many other words (*clerk*, *harass*, etc) could have been included, but this sample of 18 (including WOWI) seems fairly comprehensive.

It is interesting to compare the results of the sample analysed here with the recommendations of Professor Wall's 1938 guide to the 'correct' pronunciation of English for New Zealanders (Wall 1941). Space limitations preclude any detailed discussion, but it is glaringly obvious that considerable change seems to have occurred with items like *lieutenant*, *schedule*, *either*, *interesting*, *dynasty*, and of course *Z*.[1] As with the phonological variables, discriminant analyses were carried out to discover the most 'class'-sensitive of the alternative pronunciations. In terms of ability to assign to 'class', the results are very similar to the phonological variables: five variables (LOO EITH AD PRIV SKED) were sufficient to achieve a 71.7% correct assignation to three classes (but with none being assigned to 'UMC'), and four (minus LOO) were enough to produce an 81.2% correct classification to 'LC' and 'MC' groups.

While tables like those above provide concise information about individual variables, it is more difficult to portray the overall relationship between the different variables. In an effort to do this I have used factor analysis. It should be emphasised that three factors account for only about one/third of the variance; this is explained by the relatively low

correlations obtained in this sort of research. The meanings ascribed to the various factors are of course the intuitive judgements of the researcher.

Figure 5 shows the outcome of a varimax rotated 3-factor analysis including all phonological and alternative pronunciation variables plus AGE, SEI, SEX, PVT, and URBRUR. The dominant variables in Factor 1 (horizontal axis; 14.9% of variance) are clearly the four stigmatised diphthongs, plus SEI and SEX; Factor 2 (vertical axis; 5.2% of variance) is equally clearly related to AGE. Two fairly clear clusters emerge: the four diphthongs, not affected by age; and a number of other variables which are both age and socioeconomically sensitive. (I) occupies a position closer to the latter cluster. As an age-sensitive variable only, (WWH) is isolated toward the top of the diagram, near AGE; variables near the intersection of the axes are not significant in either factor. The third dimension (only 4.2% of variance) contrasts sex and the R-insertion variables (negative) with SEI, PVT, and (AEL) (EAR) (L) (OL) (positive); this illustrates the tendency for females to avoid R-insertion, but to use 'innovative' merged values more than males. Other analyses were also carried out using phonological and alternative pronunciation variables separately, with similar results. In some cases these subsumed a greater percentage of the variance, but the analysis discussed here seems to provide the best overall picture. Analyses of the lexical alternative variables cannot be discussed in detail here; they also produced a similar outcome, but with SEI and AGE more closely linked.

## Geographical variation

It has always been held that NZ English displays little regional variation (aside from the famous Southland 'burr'), and this study does little to change that view. In fact, with a sample heavily biased toward Dunedin residents (62%), followed by those from Southland (10%), rural Otago (5%), and Wellington city (5%), samples are obviously insufficient to investigate or document any regional variation. However, there is some evidence supporting a rather predictable trend toward rural conservatism and urban innovation. Informants from the four main centres were ranked as urban, with a value of 1, and others ranked as rural (value 4; only 30% of the sample). This URBRUR variable yielded significant correlations with the phonological variables (AEL) and (L), and with the alternative pronunciation variable (SKED); (LOO) and (EAR) were correlated, but with significance levels of only .072 and .085 respectively. In all cases the correlations were positive, indicating a predictably more conservative use by rural informants. I have the tentative

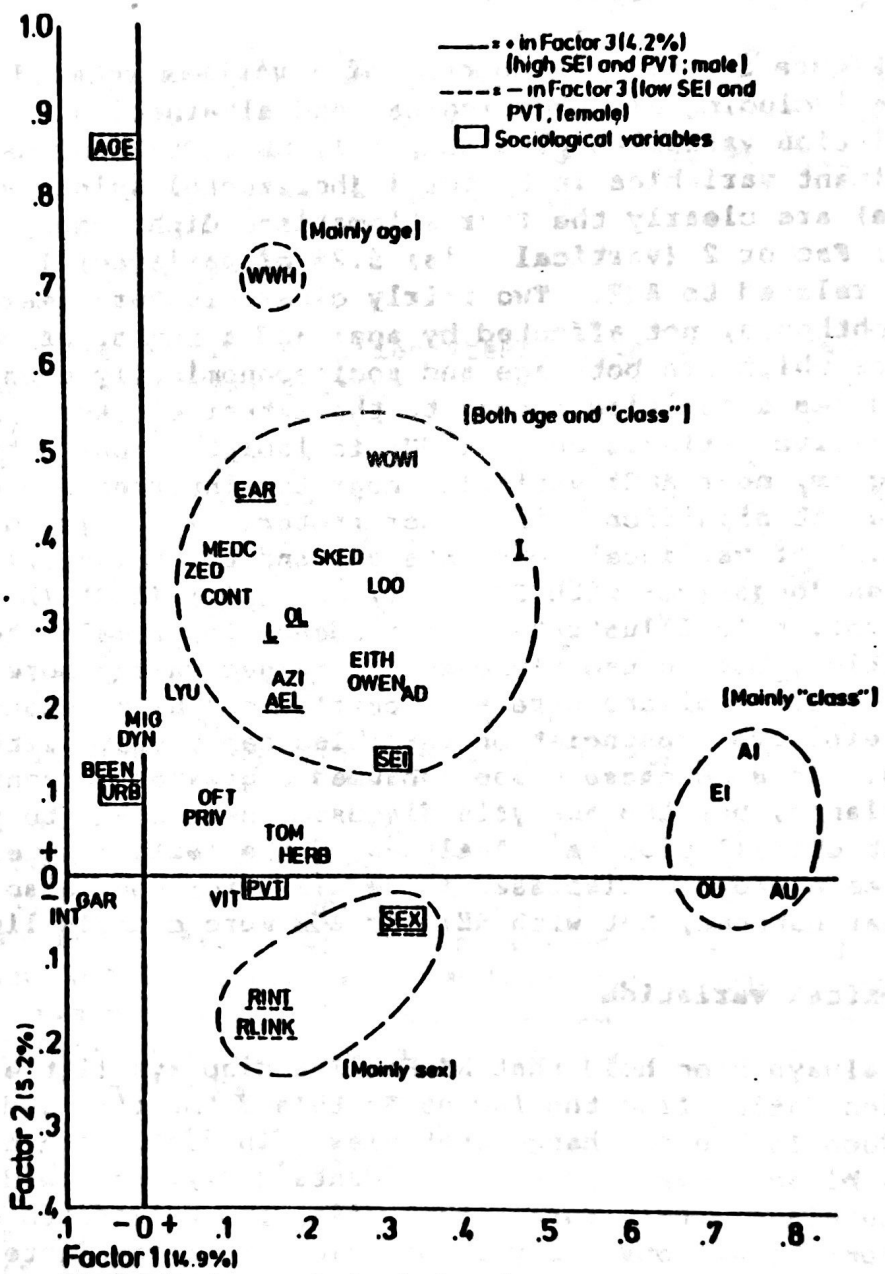



Fig.5.3-Factor analysis of phonological and alternative pronunciation variables

impression (which cannot be tested by the results of this study) that some phonological features characteristic of NZE are more advanced or prominent in North Island varieties (particularly urban ones), but obviously the whole question of regional variation requires the use of a far more representative sample, including more rigorous definitions of 'urban' and 'rural'.

**National identity and the media**

I think the results discussed above present a fairly strong case for significant phonological and lexical variation in New Zealand along the lines of socioeconomic class, age, and to a lesser extent sex. It is of course not surprising that such differences should exist here, as I hope the days of belief in a classless, non-sexist, homogeneous NZ society are long past. It is more difficult to proceed to the next stage of analysis: the reasons for the persistence of the 'innovative' NZ vowel variants in the face of long-standing disapprobation of educators attuned to RP as the only 'Standard English' accent (which is nonsense in my view, given its limited use by only some two to five million speakers on the other side of the world); and the apparent replacement of SEE-oriented lexicon by US equivalents which seems to have been under way since the end of World War II (as discussed by Turner 1970:86-87; 1972:23), but which now appears to be speeding up.

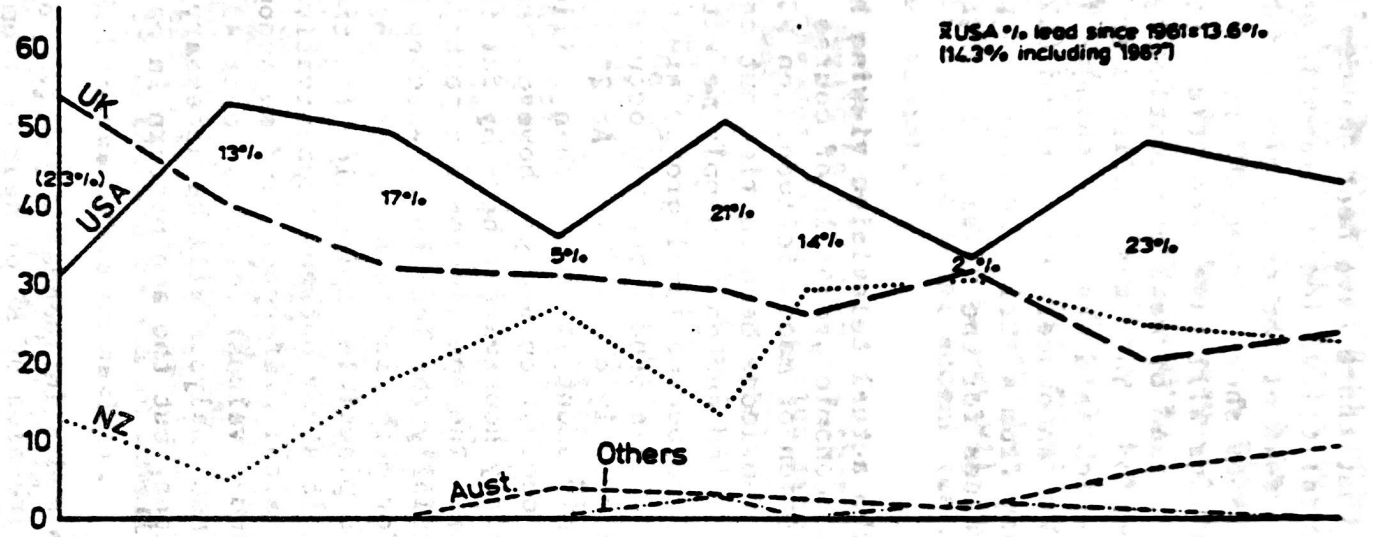
The obvious explanation for the first of these would be covert prestige (Trudgill 1983:172) and the use of 'antipodean' vowels to express a sense of colonial solidarity vis-a-vis those from 'Home' and other outsiders. During my first few years here (1970 to the mid- or late 70s) this perception often seemed to be accompanied by feelings of shame or inferiority with regard to the NZE accent; such has not been the case in more recent years, when I have sensed a more positive nationalistic feeling. Oddly enough, I believe (but cannot as yet demonstrate) that such nationalistic feelings are a major factor in the lexical changes (or at least changes in preference) which are taking place today as well. The use of or preference for *gas*, *elevator*, etc. (even ZED is now *zee* for 12% of the sample) clearly cannot be viewed as a conscious attempt to acquire Americanisms; rather it may result from an unconscious wish to replace the SEE-oriented lexicon of what is no longer 'Home' with more fashionable vocabulary (and other innovations like *ofTen* and *growen*') which can be viewed as indigenous insofar as it is used by the spoken media of radio and TV.

The latter of these would appear to be by far the most important in the dissemination of Americanisms as apparently 'indigenous' terms, both through American/Canadian-accent programmes; and through acquisition and use of the terms by local announcers (some with GenAm--in particular Canadian--accents). TVNZ has informed me that the proportion of American programmes has increased over the years: 'In 1965 we purchased more British than American programmes and this proportion has changed until now, in 1984, the approximate

proportion is 40 percent from both America and Great Britain' (TVNZ, pers. comm., 7/12/84). As they were unable to supply any more exact figures, I undertook a brief preliminary survey myself. This involved going through two consecutive issues of the *Listener* at five-year intervals and summing the numbers of programmes by source. Local news and sports programmes were not included, but documentaries, current affairs programmes, and films were. I should emphasise that the results are meant to convey a very approximate picture only.

The outcome of this brief foray is given in Figure 6, which graphs percentages of programmes by national origin since the beginning of television broadcasting. It is clear that--in terms of number of programmes, at least--US material has been in the lead since early 1961; only in the first few months of broadcasting did UK material predominate. In April 1985 over twice as many of the programmes screened came from the US than came from the UK (47% vs. 20%); this is somewhat at odds with the letter from TVNZ quoted above. Had TVNZ gone ahead with their planned 24-hour weekend transmissions ('1987' on Fig. 6), available viewing hours would have increased 28%, from 163 to 209, and US material would have continued with a healthy 19% lead over UK and local material (the latter almost tied at 24% and 22% respectively). Since 1961 US programmes have enjoyed a mean lead over the nearest contender of 13.6% (14.3% if TVNZ does carry out its planned expansion), and the UK percentage approaches that of the US only in the 1980 sample. Hence a child born in 1955 would have been watching about 50% US, 35% UK, and 15% local programmes between the ages of six and ten; British programmes have remained between about 20% and 30% of the total number since, with US ones between about 35% and 50%. Of course the situation changes if we include local news and sports programmes ('40 to 45 percent' of local programmes, according to the Minister of Broadcasting as reported in the *Otago Daily Times* on 12 July 1986), but even in this case US programmes form a plurality (32%, as opposed to 30% local, 28% UK, and 10% Australia and other; *ODT*, 24 May 1985).

We might also consider the question of accentual and dialectical variation within each sample. It is my impression that the majority of UK programmes screened here do not in fact employ the RP accent (*Minder*, *Sutherland's Law*, *Auf Wiedersehen, Pet*, *Boys from the Black Stuff*, *EastEnders*, and of course *Coronation Street*). On the other hand, I think it is safe to say that programmes originating in the US are far more uniform; from *Julia Child* and *Days of Their Lives*, through *That's Incredible!*, various Miss Universe/World pageants, *Fraggle Rock*




| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Date | 10/60 | 4/61 | 4/65 | 4/70 | 4/75 | 10/75 | 4/80 | 4/85 | '198?' |
| No. | 44 | 103 | 148 | 187 | 166 | 455 | 383 | 378 | 515 |
| Total 2379 | | | | | | | | | |
| Mean viewing hrs. screening/wk. | 10 | 28 | 49 | 65 | 63 | 134 | 151 | 163 | 208 |
| Mean total viewing hrs./wk. available | 10 | 28 | 49 | 65 | 63 | 84 | 88 | 94 | 123 |

Fig.6. Percentage of numbers of television programmes by country of origin.
Including films. News and sports omitted.

and a host of Hanna-Barbera clones to *Dallas, Dynasty,* and *Falconcrest,* accent and dialect are GenAm/SAE. In short, the accentual and lexical front presented by US television programmes would seem to be a vastly more unified one than that in UK material.

It is also clear that there have been changes in the type of English employed in local television programmes; anyone who has listened carefully to some of the nostalgic flashbacks to local programmes of the 1960s shown during the recent (1985) 25th anniversary celebrations will have been struck by the much closer approximation to RP used by news and continuity announcers during that period. This was confirmed in the letter from TVNZ quoted above, which said that some changes in the pronunciation standards for announcers have indeed taken place. These involved a move away from a strict RP standard partway toward the 'normal' NZ values for the vowel diphthongs in particular.

The question of the actual television viewing habits of the various age and socioeconomic groups is of course also crucial to the whole question of media influence on NZE. Little detailed study has to my knowledge been carried out on this topic, but TVNZ have been kind enough to supply me with some recent figures. The age and occupational groups are not identical to those used in this study, but the occupational groups in particular are closely comparable. At 29.8 hours per week, "LC" viewers are only about 7% higher than skilled, clerical, and managerial occupation groups; however "household shoppers" (presumably mainly housewives) have by far the highest mean hours watched (34.7). The age figures are perhaps more significant here, particularly the long hours watched by those over 40 (34.2 and 38.0 for males and females; cf. children at 31.7). This provides one plausible explanation for the widening of the gap detected in this study between 'conservative' lexical usage and 'innovative' lexical preference (and an accompanying increase in insecurity index values) for those over 40. Obviously more fine-grained analyses will be necessary to arrive at any definite conclusions, but the age pattern in particular is suggestive.

All in all, these media influences may serve to hasten what appears to be a progression of RP or near-RP from a formal standard expected by and acceptable to the NZ public to a near-ceremonial status (interviews with the Governor-General and visiting Royals, the Queen's Christmas message, etc.). The continuation of this progression on to the stereotype held by many Americans of RP as 'almost comic' (Wells 1982:36) is less

likely; as Gordon and Deverson say, at present the kind of accent heard on the media 'from national newsreaders and formal announcers, which is close to standard British English but not identical with it, still enjoys the greatest social prestige, and conveys the necessary ring of authority. As traditional reliance on British models weakens further, this situation could change' (1985:57). The change has certainly been made by NZ politicians. It seems clear that since 1972 all NZ Prime Ministers have employed what Gordon and Deverson call 'general NZ' (loc. cit.), with some tending toward the 'broad' end of the continuum. A brief preliminary survey I carried out on short speech samples taped from radio and television provided considerable support for this impression. I would thus guess that RP will continue to command more prestige here than GenAm accents *relatively speaking*, but will continue an overall decline vis-a-vis the local accent (as has clearly happened across the Tasman).'

It should be clear by now that I believe that the reasons for these changes lie in a growing sense of and need for a national identity. After two years of questioning dozens of New Zealanders, I have not yet met a native-born New Zealander who could tell me when the category 'New Zealand citizen' came into existence (the date is 1 January 1949). New Zealand passports bore the cover inscription 'BRITISH PASSPORT - NEW ZEALAND' until 1964, and described their bearers as 'British Subjects and New Zealand Citizens' from 1949 until 1973; only in 1974 was 'British Subject' omitted. As the Department of Internal Affairs remarked in a letter to me, 'I am sure you will find the lingering significant, a kind of reluctance to cut the umbilical cord' (pers. comm., 7 December 1984). The cord was of course cut by Britain's entry to the EEC in 1973; in 1974 the government cut off free entry to UK citizens in reply to the UK's earlier action. Three years later *God Defend New Zealand* gained co-equal anthem status with *God Save the Queen*. Finally, in 1981 New Zealand for the first time gained a national flag. I think readers will agree that this flag has featured far more prominently on television and in advertising since that date than it did in the 1970s or earlier.

In short, I believe the increased nationalism and national identity of the past 10-15 years is being reflected in a greater respect for the New Zealand accent as something to have pride in rather than deprecate. The lexical changes are, as I have stated, most likely the result of acquisition of what are perceived as 'indigenous' models coming via the spoken media rather than any attempt to emulate Americanisms, which many do not approve of.

**Implications for NZE phonology**

While the thrust of this report is of course more 'socio' than 'linguistic', there are a few comments that can be made arising from the results presented above and other material contained in the taped samples. Some of the strictly phonological conclusions of this research are implicit in the above discussion. First, it supports the clear presence of /-l/ dropping in at least a minority of NZE speakers employing upper-register styles, which of course implies the introduction of a new diphthong phoneme which I would represent as /DU/ in contrast with /ʌU/ in pairs such as *goal/go*, *bowl/bow*, and *dole/dough* (Wells 1982:609). Although Bauer (1986), in the most complete discussion of NZE phonetics and phonology to date, phonemicises both the GOAT vowel and its GOLD variant as /DU/, I perceive a marked difference between an unrounded /ʌU/ in *hoe*, *go*, and a clearly rounded /DU/ in *hole*, *goal*; the latter value approximates very closely to my own GenAm /oU/ phoneme ([ɔˤU] or [DˤU] phonetically). As Bauer says, most speakers of NZE feel that the GOLD and GOAT vowels are phonemically distinct (1986:44), as they must surely be for L-droppers.

The *dole/doll* merger also seems quite prevalent, except before prevocalic /l/ (Kearns 1985); in the random-word reading test mentioned in the 'methods' section of this report, correct identification of all items read in my accent was only 59%, as compared to a figure of 94% when a shuffled list was read by a native NZE speaker; however, *dole* was correctly identified in only 22% of the cases when read by the NZE speaker, as opposed to a 66% correct recognition in my GenAm accent (as mentioned above, the same pattern held true for *Ellen/Alan*).

The values of the four diphthong variables (AI), (EI), (AU), and (OU) may also be of some relevance to the question of NZE vowel phonology. There has been a fair amount of variation in the representation of the NZE vowel system (Hawkins 1973a, b; Wells 1982:605-09; Gordon and Deverson 1985:29, and the much less RP-oriented systems of Bauer 1986 and particularly Haggo 1984). The system published by Hawkins (1973b:20) may perhaps be criticised for the use of unnecessary or not very accurate symbols: /e/ for the vowel of the DRESS lexical set, but /ɛˤ/ for FACE; /ɑ/ for START and PALM--certainly somewhat closer to [a] in most varieties of NZE--and /ɑˤ/ for PRICE, but /aˤ/ for MOUTH, etc. Similarly, Gordon and Deverson represent the DRESS vowel as /e/, but the SQUARE diphthong as /ɛə/; given the merger or near-merger of NEAR and SQUARE sets in the speech of 75% of the present sample, /eə/ would seem a better representation for

SQUARE in the case of those speakers who do distinguish between NEAR and SQUARE (Bauer uses /eɐ/ for both SQUARE and the SQUARE/NEAR merged vowel).

Similar problems have arisen in representing the phoneme involved in the GOAT vowel. Hawkins opts for the RP value /əʊ/; Gordon and Deverson use a more North American representation /ou/, although /o/ is otherwise absent from the system. As mentioned above, Bauer uses /DU/, although he states that the second element is most often unrounded (1986:34). Here I would agree with Wells' use of /ʌU/ to represent the low (well below Cardinal 14?), backed (relative to RP), but unrounded quality of the starting element (which would appear to me to be somewhere between [ɐ ] and [ʌ ]). The long vowel systems of Wells (i.e. his part-systems B, C, and D) and the phonetic (phonemic?) symbols used by Gordon and Deverson are shown in Table VI, along with the one used here and the more phonetically specific one proposed by Bauer.

TABLE VI

NZE LONG VOWEL PHONEMES

| WELLS | | | | GORDON & DEVERSON | | | | PRESENT STUDY | | | | BAUER | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| i: | [iə] | u: | [uə] | i | iə | u | uə | i | iə | u | [uə] | ɐi | iɐ | ʊ | ʊɐ |
| | | | | | | ou | | | | | | eɐ | ø | oe | oɐ |
| eə | ɜ: | ɔ: | ɔɪ | ei | ɛə | ɔ | ɔ | ɔi | ei | eə | ɔ | ɔɪ | ɔə | [DU] | ɐe |
| æʊ | a: | ɔɪ | ʌʊ | ʌɪ | au | a | ai | | aʊ | a | ʌʊ | aɪ | ɐʊ | a | DU |

I have tried here to reach a compromise between what Bauer has called the swings and roundabouts of phonetic accuracy vs. international comprehensibility (1986:3); Bauer's system is doubtless more phonetically accurate, but is not immediately transparent to RP or GenAm-speaking scholars (due in particular to the use of /ɐ-/ and /-ɐ/ rather than /ʌ-/ and /-ə/, and /-e/ rather than /-ɪ/). I have not indicated length with /i/, /u/, /ɜ/, and /a/, since these phonemes do not occur as short vowels. /DU/ is shown in brackets to accomodate L-droppers; /uə/ is bracketed to indicate its relative rarity. Although I have not yet analysed all occurrences of this vowel in the reading passages, I did note that not one informant used it in *poor*; this was in all cases realised as [pɔə] or [pɔ:]. Most of the students I have questioned also claim to pronounce *sure* and *shore* identically, but /uə/ is retained after /j-/ (see Bauer 1986:38). I have used /ɔə/ rather than /ɔ/ because I have the

impression that a centralised off-glide is the norm in words like *law* as much as it is in *lore*; it also adds a bit of symmetry to the system (but again see Bauer *loc. cit.*). /aʊ/ is used rather than Wells' /æʊ/, as the mean value for (AU) in this study (2.09) would seem to lie closer to the START vowel (or to the STRUT vowel; they are acoustically very close according to Maclagan's 1982 analyses) than to the TRAP vowel. I have used /aɪ/ rather than Wells' /ɑɪ/ for the PRICE vowel in view of the lack of any phonemic contrast between the initial elements as monophthongs, although the mean value for (AI) of 1.99 was certainly much closer to [ɑ]; for L-droppers who have /ɒʊ/ in their phonemic inventory, /ɒɪ/ might be a better representation, as (AI) and (L) are significantly correlated ($\rho$ = +.223; $p$ <.01). For the FACE vowel, /eɪ/ is used in preference to Wells' /ʌɪ/; the mean value for its initial element in this sample is 2.57, intermediate between [ɐˑ] and [ɛˑ]. Bauer's /ɐe/ is probably a phonetically more accurate rendering.

The short stressed vowel system is somewhat simpler to resolve, aside from the vexing question of the phonemic status of /ɪ/. Wells' use of a two-level height contrast seems quite valid in view of the obvious centralisation of /ɪ/ and the raising of /æ/ and /ɛ/, giving the following pairs of low/high contrasts: /æ/-/e/, /ʌ/-/ɪ/, /ɒ/-/ʊ/. With respect to the /ɪ/-/ə/ question, my own very tentative feeling at present is that they should be viewed as distinct phonemes, at least in formal-register speech; in contrast to Hawkins' experience (1973b:19), many students in the classes I have questioned seem to perceive a real difference in such pairs as *inhuman/unhuman*. The problem here (aside from orthography influencing such decisions, of course) is the degree of stress present on the first syllable, and whether the first vowel in *unhuman* should be represented as [ɐ] or [ˈə]. Bauer points out that such pairs as *affect/effect* are distinguished in NZE by the use of full TRAP and FLEECE vowels initially (1986:48), but I have not heard the FLEECE vowel used in *inhuman* or similar words.

Hence I would tentatively postulate an *unstressed* vowel 'phoneme' /ə/ (not contrasting with /ɪ/ or /ʌ/, and hence no more a 'genuine' phoneme than /ə/ vs. /ʌ/ in my accent) alongside the two central short stressed vowels, with allophones overlapping them. The unstressed vowels of NZE would thus be *happY*, /-i/, and *commA*, *lettER*, /ə/, with the possibility of unstressed contrast with /ɪ/ in initial syllables a still open question. I would prefer to view Bauer's vocalised [ɹ̩] phoneme /ɯ/ in *wriggle* as an allophone of /l/, just as I view my own NURSE vowel as a vocalic variant of /r/ (this avoids the lengthy and to me unconvincing arguments of Wells [e.g., 1982:480-1] for

a /ɜ/ phoneme in GenAm).

Other implications of the results of this study include the probability of an /iə/-/eə/ merger becoming 'standard' NZ, following speech communities as diverse as New York City and Norwich (Labov 1966:537-8, Trudgill 1974:67, fn 1); Table IV suggests the merger is characteristic of about half the speakers in the 20-60 age range, and dominant for those under 20. This study provides strong support for frequent diphthongisation of /i/ in *been, speech* and other FLEECE words to [ɪi] or [əi]. indicating that some NZE speakers follow 'broad' or 'general' Australian in this change (Wells 1982:597). As 90% of my sample featured some form of diphthongisation, I can add my surprise to Bauer's (1986:24) and Maclagan's (1982:22) that she encountered no evidence of this feature in her acoustic analyses of NZE. I conclude as Bauer does that Maclagan's informants were fairly 'cultivated'. The phenomenon seems to be much more characteristic of younger speakers (Table IV), and those in the 'lower' and lower 'middle' classes (Table III). The six SEI level 3 informants had a mean for this variable of 1.67, the only SEI group to score below 2.4; SEI groups 10-13 all had means above 3. These results provide considerable justification for Bauer's phonemicisation of the FLEECE vowel as /əi/, although for the sake of simplicity I have retained /i/ here. The mean phonetic value for the variable is 2.72, somewhere between [əi] and [ɪi].

If we view yod-dropping on a continuum running from conservative RP to Norwich (Wells 1982:206-08; Trudgill 1974:65-66), NZE appears from this study to have moved beyond many varieties of RP, although of course not as far as my own GenAm accent (which originally retained /ju/ only after labials and velars: *music, few, cue, hue*). Only 3% of the sample retained /lju-/ in one or both occurrences in the word list, and I noted no pronunciations of *sue* as /sju/. It is also interesting to note that only 9% of the informants followed TVNZ newsreader practice in pronouncing one (6%) or both (3%) occurrences of *Asia/Asian* as /ziə/; the remainder (not counting 9% missing) used /žə/. No informant used the 'standard' pronunciation of /eɪšə/ recommended by Radio New Zealand (Gordon and Deverson 1985:28)

Merger of GOOSE and FOOT vowels before /-l/ (Bauer 1986:43) was not tested as such in the lists employed in this study, but lowering of always-backed /ul/ was frequently noted, and reached a value approaching or equalling /Ul/ among 22% of the sample, mainly younger speakers (of the 31 cases noted, all but seven were under 30, and 14 were under 20). /u/ otherwise

had its normal fronted value; diphthongisation of this variable (Bauer 1986:31) was not examined, but my impression is that little is present, certainly nowhere near the marked diphthongisation exhibited by the one 'general' Australian speaker taped for reference purposes in this study.

Some other 'deviations' from RP which have been noted by earlier workers were also found. As Wells (1982:607) and Bauer (1986:32) have pointed out, /ɜ/ has a value approaching [ø] in many NZE accents. Word-final orthographic <-y> (Wells' *happY* set) is of course /-i/ rather than RP /-ɪ/; only one of the NZE informants (F123, who so successfully assimilated the prescriptive rules of the 1930s that few NZE elements are present in her speech) used /-ɪ/, and even then in only about half of the occurrences in the text. This innovation (if in fact it is) is shared not only with Australia (Wall 1941:16; Gordon and Deverson 1985:24), but with a majority of North American speakers (excluding New England and many Southern accents). The same is true of the ending /-deɪ/ for the days of the week.

Despite superficial resemblances like this, I believe as mentioned above that there is little chance of the GenAm phonological system having any significant impact on NZE phonology. The Australasian '[æʊ]-[ɒɪ] crossover' runs contrary to trends in mainstream GenAm, which as far I can tell from listening to satellite news reports is following Canada in tending toward centralisation of the initial elements of both diphthongs. The difficulties involved in merging NZE /ɒ/ (LOT and CLOTH lexical sets) with either GenAm /a/ (LOT) or /ɔ/ (CLOTH plus THOUGHT), or one or the other in those varieties of GenAm which merge THOUGHT and LOT lexical sets; and the closeness of NZE /ɔʊ/ and GenAm /oʊ/ argue strongly against the possibility of any significant influence (I hardly need mention the need to merge BATH and TRAP sets and reacquire rhoticism!). Hence the NZE vowel system, at least, seems 'safe' from American influence.'

**Future research**

The approach adopted in this study can properly be described as 'broad-spectrum' or more honestly 'scatter-shot'; hence in many respects it has raised more questions than it has answered. Future aspects which I would like to see investigated include the study of samples of casual speech (I have already made plans to obtain such samples); attitudinal evaluation of various accents ('broad' and 'narrow' NZE, RP, Australian, GenAm) along the lines of Watts' pilot study (1981); the acquisition of a

more regionally representative sample of NZE speakers, in particular from Northern urban areas; and establishing contact with Australian scholars conducting similar research (it is my impression that Australian English is at least a decade ahead of NZE in establishing a 'national identity'). In addition to these, Gordon and Deverson have given a wide range of topics in their excellent introduction to language research projects (1985:73-75), and with any luck a grassroots interest in NZE will soon develop, at least among younger speakers. There is most assuredly no lack of interesting topics to investigate!

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**NOTES**

[1] Fine-grained quantitative studies of two of the variables considered here were in fact presented at the 1985 conference where I gave the first version of this paper (EAR merger, Gordon and Maclagan 1985; the GOLD [OL] vowel, Kearns 1985). It was very encouraging to see that the results of these detailed studies provided general support for the conclusions reached in the broad-scaled approach adopted here.

[2] I am grateful to Elizabeth Gordon for pointing this out to me.

[3] On the basis of two brief questionnaires administered to Anthropology students in 1984 (N=235) and 1986 (Stage I only; N under 25=211), in addition to the data presented here, I think

it is safe to conclude that the 'standard' (i.e. majority) pronunciation of *lieutenant*, *schedule*, and *women* for younger NZE speakers is now *loo-*, *sked-*, and *woman*. In the second questionnaire, 22% also reported that they pronounce the last letter of the alphabet *zee*; *clerk* is /klɜk/ rather than /klak/ for 36%. None of these trends are reflected in the three recently published NZE dictionaries (Orsman 1982, Gordon 1985, Burchfield 1986); despite this I would hazard a strong guess that innovative values for *Z* and *clerk* will become as common as *lieutenant* and *schedule* for speakers under 30 in another decade.

'I have recently (8/86) heard the disyllablic pronunciation of (OWEN) words used by Australian English speakers on television, and suspect that the innovation is not now confined to NZE (if it ever was); it is certainly more widespread on television now than it was two years ago.

'Not to mention some BBC or Thames programmes which employ GenAm accents; e.g., *Oppenheimer*, *American Caesar*, and *Tender is the Night*.

'I have recently carried out accent attitude surveys among 86 university and 46 Form IV high school students. These strongly suggest that while RP leads in prestige, GenAm is second; NZE accents rank below them in almost all cases. A full report will be presented soon.

'There is some evidence in my sample for the interesting possibility that television may be encouraging use of such 'foreign' phonological features as postvocalic -R and -T glottalisation; this will be the subject of a later paper.

## APPENDIX:

## VALUES OF PHONOLOGICAL VARIABLES

Variable means ($\bar{X}$) and percent scored by each value also shown

LINKING -R- (RLINK); based on five cases in reading passage; $\bar{X}$ = 1.87.
1. present in most or all cases, both first and second reading (42%); 2. present in most or all cases in first reading, some omitted in second (35%); 3. some present first reading, none second; or only two in each reading (17%); 4. none or only one present both first and second readings (6%); (1% missing).

INTRUSIVE -R- (RINT); based on two cases (*idea is, banana under*) in reading passage; $\bar{X}$ = 3.11. 1. present in both cases in both readings (5%); 2. present both cases first reading, one or both skipped in second reading (13%); 3. one present in first reading, one or none in second (45%); 4. none present first or second reading (34%); (3% missing).

WHICH~WITCH (WWH); $\bar{X}$ = 1.81. 1. all /w/ (66%); 2. /ʌ/ in lists, not in readings (9%); 3. /ʌ/ in slow reading, lists (4%); 4. all /ʌ/ (21%).

ELLEN~ALAN (AEL); $\bar{X}$ = 2.44. 1. all /æ/ or /e/ (40%); 2. some items slightly distinct (9%); 3. all but *Ellen, Alan* distinguished (14%); 4. all distinguished (34%); (3% missing).

DULL~DOLL~DOLE (OL); $\bar{X}$ = 2.50. 1. all merged as /-ɒl/ (4%); 2. /ʌ/ in *dull*; /ɒʊ/ in both *doll, dole* (50%); 3. all three distinct as /ʌ/ /ɒ/ /ɒʊ/ (or /oʊ/ for GenAm informants) (38%); 4. all three distinct as /ʌ/ /ɒ/ /əʊ/ (as with some RP speakers); (9%).

-L DROPPING (L); $\bar{X}$ = 3.38. 1. /-l/ always dropped (4%); 2. /-l/ dropped in text, retained in lists; or sometimes dropped in both (13%); 3. /-l/ reduced in text or lists (26%); 4. /-l/ retained (57%).

FEAR~FAIR (EAR); $\bar{X}$ = 2.38. 1. all unselfconsciously merged as [iə] or [eə] (40%); 2. pauses, selfconsciously largely merged (11%); 3. some pairs slightly distinguished (20%); 4. all distinct /iə/ vs /eə/ (29%).

GROWN~GROWEN (OWEN); $\bar{X}$ = 3.32. 1. all /-ʌʊən/ (11%); 2. one or two /-ʌʊən/ (14%); 3. /-nː/ rather than /-n/ (6%); 4. all /-ʌʊn/ (68%); (1% missing).

/žə/ vs /ziə/ (AZI); $\bar{X}$ = 1.26. 1. both /žə/ (80%); 2. *Asia*/žə/, *Asian* /žjən/ (2%); 3. one /žə/, other /ziə/ (6%); 4. both /ziə/ (3%); (9% missing).

LY- yod dropping (LYU); $\bar{X}$ = 1.10. 1. both /lu-/ in *lucid, lieutenant* (assuming *loo-* pronunciation) (83%); 2. --; 3. one /lu-/, other /lju-/ (2%); 4. both /lju-/ (1%); (14% missing).

(OU): initial element in GOAT vowel; $\bar{X}$ = 1.93. 0. low back r /oʊ/ (GenAm) (0); 1. mid-low back ur [ɣʊ] (16%); 2. mid-low back cent ur [ʌʊ] (75%); 3. mid-central ur [əʊ] (9%); 4. mid-fronted ur [ɜʊ] (0).

(EI): initial element in FACE vowel; $\bar{X}$ = 2.57. 1. low-mid central [ɐɪ] (2%); 2. low-mid, fronted slightly [ɐ˖ɪ] (48%); 3. mid-front, backed slightly [ɛ˖ɪ] (41%); 4. mid-front [eɪ] (9%).

(AU): initial element in MOUTH vowel; $\bar{X}$ = 2.09. 1. low-mid front [æʊ] (18%); 2. intermediate [a ʊ] (55%); 3. low front or central [aʊ] or [ɑ˖ʊ] (27%); 4. low central-back [ɑʊ] (0).

(AI): initial element in PRICE vowel; $\bar{X}$ = 1.99. 1. low back r [ɒɪ] (18%); 2. low back ur [ɑɪ] or [ʌɪ] (69%); 3. low back-central ur [ɑ˖ɪ] (9%); 4. low central or central-front [aɪ] (4%).

(I): /i/ diphthongisation: $\bar{X}$ = 2.72. 1. marked diphthongisation as [ɘi] (6%); 2. slight to marked diphthongisation in range [ɘi] to [ɪi] (27%); 3. slight diphthongisation of /i/ as [ɪi] (57%); 4. minimal or no diphthongisation; [i] usual (10%).

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