

Pronouncing your Rs in New Zealand English?

A Study of Pasifika and Maori Students¹

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Although New Zealand English (NZE) is generally categorised as a non-rhotic variety of English, recent findings suggest some evidence of non-pre-vocalic /r/ in the music of singer-song writers and hip-hop musicians (Coddington 2004; Gibson forthcoming), many of whom are of Maori or Pasifika descent. There appears, however, to be little evidence of non-pre-vocalic /r/ in the speech of these singer-songwriters (Coddington 2004). These findings contrast with those from the present study of younger Maori and Pasifika speakers of NZE where low levels of both non-pre-vocalic /r/ and linking /r/ are present. This paper evaluates the use of both non-pre-vocalic /r/ and linking /r/ in the readings of forty Maori and Pasifika intermediate students and compares their use of /r/ with their views on American and New Zealand English.

Introduction

Descriptions of NZE characterise mainstream NZE as a non-rhotic variety of English (Bauer 1994) with linking /r/ (Warren and Bauer 2004). Although relic instances of non-pre-vocalic /r/ can be observed in remote parts of the South Island, this use appears to be localised and negatively evaluated by many NZE speakers (Bayard and Bartlett 1996).² Thus any use of non-pre-vocalic /r/ in general NZE is unlikely to arise from associations with its use in the South Island. There is limited evidence of non-pre-vocalic /r/ in mainstream NZE in a few lexical items, such as the letter <r> in the alphabet, and a few recent borrowings of American origin (Warren & Bauer 2004). The only substantial use of non-pre-vocalic /r/ in mainstream NZE appears to be restricted to singing pronunciation as a stylistic device in pop and hip-hop music (see Coddington 2003, 2004; Gibson forthcoming). In hip-hop music, non-pre-vocalic /r/ occurs predominantly in lexical items that contain the NURSE vowel (Gibson forthcoming). In non-rhotic varieties of English, such as NZE,

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² Recent work by Chris Bartlett suggests that non-prevocalic /r/ in the NURSE lexical set may be serving an identity marker in parts of the South Island.

it is generally assumed that non-pre-vocalic /r/ will not be pronounced either when followed by another consonant within or across a word boundary, or word finally when it occurs before a pause.

A second variable is linking /r/. Linking /r/ refers to /r/ preceded by a word or morpheme beginning with a vowel. In an analysis of older varieties of NZE, Hay and Sudbury (forthcoming) found that the latter type of linking /r/ is categorical, while the former is variable but still relatively frequent (see Bayard 1995 for further evidence of this). Although not well-documented, linking /r/ is considered to be a feature of NZE (Wells 1982; Bauer and Warren 2004). More recently however, Hardman (as cited in Gibson forthcoming) has claimed that the absence of linking /r/ may be a feature of Maori English (ME). The absence, rather than the presence, of this feature is considered to be a potential transfer feature, one that could also potentially apply to Pasifika varieties of English.

Methodology

The study is situated in Manukau in South Auckland. Manukau is a linguistically rich region with a relatively large proportion of Maori and peoples from the Pacific. One in four of the Pasifika population of New Zealand lives in the Manukau region (Statistics New Zealand 2002). A second important consideration is the changing demographics of the Pasifika peoples in New Zealand, including Manukau. The latest census shows that 70 per cent of Niueans and Cook Islanders residing in New Zealand claim that they are New Zealand born. A third point relating to the census concerns the proportion of speakers of Pasifika languages. For many of these languages, the number of speakers appears to have decreased slightly when compared to figures from the 1996 Census (2001 New Zealand Census 2002). Together, these changing demographics create a context in which there is strong potential for emerging linguistic ethnolects.

In order to explore the use of non-pre-vocalic /r/ and its relationship, if any, to American influences, a study was conducted on 40 Pasifika and Maori students enrolled in bilingual and immersion classes in a decile one school in Manukau³. The bilingual classes were in Cook Islands Maori and Niuean, the immersion classes in Samoan and Tongan. Most students had been enrolled in the school since they began their schooling, all were from the local area. Thirty four of the students had spent their entire lives in New Zealand, three

³ Decile 1 denotes the least affluent of schools where the majority of students tend to come from the lowest socio-economic backgrounds. The highest ranking schools have a ranking of decile 10.

had lived outside New Zealand for less than one year. Of the remaining three, all but one had spent the majority of their lives in New Zealand. However, even though the students lived in a largely monolingual English speaking community, only 32 per cent claimed English as their usual home language and only 45 per cent claimed that English was their first language⁴. Since a first language may have a transfer effect, it should be noted that New Zealand Maori, Samoan, Tongan, Cook Islands Maori and Niuean are closely related Polynesian languages with CV syllable structure. Thus, it might appear that both non-pre-vocalic and linking /r/ would not be favoured by members of these Pasifika communities. If however, one considers linking /r/ as occurring in syllable onset rather than coda position (see Hay and Sudbury forthcoming for a discussion of this issue), the non-pre-vocalic /r/ might be disfavoured in all four Pasifika groups, but linking /r/ might be favoured amongst individuals who speak (or whose families used to speak) Polynesian languages which have the phoneme /r/. New Zealand and Cook Islands Maori have this phoneme /r/; the other Polynesian languages under discussion have /l/.

The controlled nature of the reading task used in the study meant that the 40 speakers could be recorded in a similar context within a relatively short period as an initial means of gathering insights into the speech patterns of Pasifika communities in Manukau⁵. This is not the ideal task for investigating this variable, however, as the letter <r> is an orthographic device that may have the potential to increase the occurrence of /r/ in coda position. This factor could not be controlled in this study⁶.

The study is also limited by the profile of the students. There was an unequal ethnic balance of students in the mixed level language immersion classes and thus there are more Niuean students than Samoan ones in this age range (see Table 1 for details). Another issue is that of identity. Nine of the students self-identified as being of mixed Pasifika ethnicity, a characteristic common to many Pasifika peoples in New Zealand (2002 New Zealand census 2001). For example, three of the females in the Niuean bilingual programme stated their ethnicity as both Niuean and Samoan. In such instances, students are analysed on the basis of their class cohort⁷.

⁴ The majority of the students who have English as their home language are Niuean or Maori.

⁵ Three students enrolled in immersion classes who had a different ethnicity (two Indian students and one Korean student) participated in the study because of a desire to do so. They are not included in the analysis.

⁶ The text contained examples of direct speech. There were no observable differences in the use of non-pre-vocalic /r/ and linking /r/ in direct speech and in other parts of the narrative.

⁷ There were no observable differences between the students of mixed and non-mixed background in their use of non-pre-vocalic /r/ or linking /r/.

Because of the sample structure (bilingual and immersion programmes), no Pakeha have been included. Since most prior work on non-Pakeha speech has been on Maori English, the speech of the Pasifika students was contrasted with the speech of the Maori students rather than with that of Pakeha students.

Table 1: Sample design for the study

	Male		Female	
	Full	Mixed	Full	Mixed
Niuean	5	1	1	4
Samoaan	3		3	
Tongan	4		4	
Cook Islands Maori	3		4	
Maori	2	2	2	2
TOTAL	17	3	14	6

Each student read a reading passage in a quiet room at their school⁸. The reading passage, *Who wants an old Teddy Bear* by Ginnie Hofman, was taken as the text for the research because it was written in a narrative style familiar to the students. It was also selected because it was deemed to be below the student reading levels, it contained only a few sentences per page and had bright colourful pictures to keep the students interested in the task. Thus it was a relatively easy task for the students many of whom had low levels of English literacy. The text was also relatively short, 475 words in total. As this text was chosen for its readability and presentation, rather than for its choice of linguistic variables, certain variables were limited in their frequency, or did not occur at all (e.g. BATH vowel).

In addition to the reading, students also completed a one page background sheet which included one question on the way they would like to speak. The question was 'When I speak, I like to sound like I am from ____.' Suggestions of possible responses were also included e.g. New Zealand or somewhere else (i.e. where you were born, where your parents were born). The responses were varied with 15 (38 per cent) wishing to sound like New Zealanders, 14 (35 per cent) like specific types of Pasifika peoples, 9 (23 per cent) like Americans, and the remaining 2 (5 per cent) like Australians. At least one student from each of the communities wished to sound like an American. The recordings were completed with the help of a 15 year old

⁸ For each student who read the passage, a twenty dollar donation was made to the school orchestra.

Niuean girl from the local community. A recording of her speech was also made at the time for comparative purposes.

Results

The reading passage contained 58 potential tokens of non-pre-vocalic /r/ and nine potential tokens of word final linking /r/. If each participant read the passage as presented, this would produce 2320 tokens of non-pre-vocalic /r/ and 360 tokens of linking /r/. The number of tokens was slightly less due to a combination of factors including static from playing with the lapel microphone, inaudible tokens from students mumbling over the occasional word or phrase and reading errors. Potential cases of linking /r/ which were followed by a pause were also excluded. The above difficulties appear to be randomly distributed throughout the sample. There were a total of 63 such tokens: 51 potential tokens of non-pre-vocalic /r/ and 12 of linking /r/. The final analysis was based on 2269 instances of non-pre-vocalic /r/ and 348 tokens of linking /r/ (see Table 2).

Table 2: Overall percentage of non-pre-vocalic /r/ and linking /r/

	Potential total per reading passage	Potential total across the student sample (x 40)	Actual total across the student sample
non-pre-vocalic /r/	58	2320	2269
linking /r/	8	360	348

The overall findings show a low percentage of non-pre-vocalic /r/. Only 3.6 per cent of possible tokens were pronounced as such (see Table 3). This is likely to be higher than that found amongst other speakers of NZE and may be considered as a Pasifika and Maori variable despite its infrequent use in this reading passage data. It should be noted however that non-pre-vocalic /r/ use is also a highly variable feature appearing in the speech of only 14 (35 per cent) of the students. Amongst these students, non-pre-vocalic /r/ use varies from a single token to 22 tokens per reading passage. For 10 of the 14 students with some non-pre-vocalic /r/, non-pre-vocalic /r/ use is limited to six or fewer tokens per reading passage. It is possible that the variation is currently at the individual rather than community level. It is also possible that more tokens of non-pre-vocalic /r/ would be present in conversational data as infrequent vernacular features tend to appear less often in formal style.

Table 3: Distribution of non-pre-vocalic /r/ and linking /r/

	Actual tokens	Potential tokens	Percentage of /r/
non-pre-vocalic /r/	83	2269	3.6
linking /r/	9	348	2.5

Final points on non-pre-vocalic /r/ concern its distribution within the reading passages. Of the potential 58 tokens of non-pre-vocalic /r/ in the reading passage, 24 tokens occurred word internally (eg. bears, stairs, barked, Arthur), 26 tokens occurred word finally before a word beginning with a consonant (eg. The teddy bear still) and eight appeared word finally before a pause (eg. Who wants an old teddy bear?) (see Table 4 for details). The position of the non-pre-vocalic /r/ has an effect on whether it is realised. Of the 83 actual tokens of non-pre-vocalic /r/, the majority, 58 (or 69 per cent) appear word finally before a word beginning with a consonant. The others are split between those in word final position before a pause (12 occurrences) and those in word internal position before another consonant (13 occurrences). A second point relates to a frequently occurring word in the reading passage: the name "Arthur('s)". This lexical item accounts for 18 of the 58 potential tokens of non-pre-vocalic /r/ per reading passage (Table 4) and 30 out of the 83 overall tokens (Table 5). Of the non-pre-vocalic /r/ in this lexical item, 7 occurred in pre-pausal position, 2 in the initial syllable in pre-consonantal position, and the remaining 21 occurred word finally before a word beginning with a consonant. Thus, this lexical item appears to pattern like other lexical items in word final position but appears to have a slightly different distribution in word internal position. It is possible that names may behave differently than other types of nouns (see Starks and Bayard for another exception regarding names and /r/).

Table 4: Use of non-pre-vocalic /r/ by lexical item and following vowel

Lexical item	Word internal (Total: 24)	Word final before a word beginning with a consonant (Total: 26)	Pre-pause (Total: 8)
bear		4	3
bears	7		
stairs	1		
there		5	
where		1	
barked	1		
far			1
Arthur	8	6	2
Arthur's (X2)	2		
for		1	
tore		1	
floor		1	
more		1	
outdoors	1		
wondered	1		
father		1	
paper			1
mother		2	
over	1		
grandmother			1
surprised	2		
were		3	

A third point concerns the quality of the preceding vowel. Previous research on non-pre-vocalic /r/ links suggests that such use may be largely constrained to the NURSE lexical set (Gibson forthcoming, and historically Gordon et al 2004). When tokens of 'Arthur' are excluded from the analysis, no such pattern emerges in the data (see Table 5). Instances of non-pre-vocalic /r/ occurred before all vowels that occurred in the text (e.g., far, bear, floor).

Table 5: Occurrences of non-pre-vocalic /r/ by vowel type and lexical item

Vowel type	Lexical item	No. of realised tokens of /r/ in individual lexical items
NEAR/SQUARE	bear	1
NEAR/SQUARE	bear	2
NEAR/SQUARE	bears	1
NEAR/SQUARE	bears	1
NEAR/SQUARE	bears	1
NEAR/SQUARE	bears	1
NEAR/SQUARE	bears	1
NEAR/SQUARE	stairs	1
NEAR/SQUARE	there	3
NEAR/SQUARE	there	3
START	barked	2
START	far	2
START	Arthur	2
NORTH/FORCE	floor	1
NORTH/FORCE	for	1
NORTH/FORCE	tore	3
NORTH/FORCE	more	2
COMMA	wondered	3
COMMA	father	5
COMMA	paper	3
COMMA	mother	3
COMMA	mother	2
NURSE	were	4
NURSE	were	4
NURSE	were	3
NURSE	Arthur	18
TOTAL		83

The last point concerning non-pre-vocalic /r/ is its variability. Many lexical items appear on multiple occasions in the reading passage. When these were examined on an individual basis, no regular pattern could be observed. For example, non-pre-vocalic /r/ appears in only two of the four possible occurrences of the lexical item 'bear' in the reading passage but in five of the seven possible tokens of 'bears'. In each instance, it is infrequent (eg one or two occurrences out of a potential total of 58). When a speaker produces a non-pre-vocalic /r/ in one context in the reading passage, s/he often fails to produce it in another.

Instances of linking /r/ were also rare. Of the 348 tokens of word final linking /r/ in the readings, only 2.5 per cent were pronounced as such (see Table 3). This figure is unusually low for NZE and questions the assumption that

linking /r/ is favoured amongst all NZE speakers. Hardman (as quoted in Gibson forthcoming) claims that the absence of linking /r/ may be a feature of Maori English. These data would suggest that low levels of linking /r/ may be a feature of other New Zealand non-Pakeha communities. A more detailed investigation of the use of linking /r/ revealed only 17 per cent (7/40) of the speakers to show any evidence of linking /r/. There was little variation across the student population as no student produced more than two realised tokens. Of the four variables, the string 'for a' and 'far away' tended to have more linking /r/ than other context (see Table 6 for details). This might be due to the following unstressed syllable favouring linking /r/ (i.e. 'for a'). However given the limited numbers of tokens of linking /r/, little more can be deduced about its use.

Table 6: The use of linking /r/ by lexical item and following segment

Potential tokens of linking /r/ in the reading passage	Actual tokens of linking /r/ across the sample
for a	4
far away	3
tore off	2
for Andy (x 2)	0
Arthur as	0
paper off	0
for Arthur	0
together until	0

We turn now to the question of differences across the student groups. The findings for non-pre-vocalic /r/ range from 0 per cent in the Cook Islands community to 8.1 per cent in the Tongan community. The findings on linking /r/ are similar. Linking /r/ varies from 0 per cent in New Zealand Maori to 5.5 per cent in the Samoan community. Thus overall, there is a greater use of /r/ amongst the Samoan, Tongan and Niuean students than amongst the Cook Islands and New Zealand Maori students (see Table 2 for details). These findings suggest that /r/ in coda position might be starting to have some social significance in some - but perhaps not all - communities. A full scale study would be needed to determine if this were indeed the case.

Table 7: Percentage of non-pre-vocalic /r/ and linking /r/ for Pasifika and Maori Students

	Realised/possible % non-pre-vocalic /r/			Realised/possible % linking /r/			Realised/possible % total code (R)		
Niuean	20	638	3.2	3	93	3.2	23	731	3.1
Tongan	35	433	8.1	2	68	2.9	37	501	7.3
Samoaan	23	348	6.6	3	54	5.5	26	402	6.4
CIM	0	388	0	1	61	1.6	1	449	0.2
Maori	5	462	1.1	0	72	0	5	534	0.9
Total	83	2269	3.6	9	348	2.8	92	2617	3.5

A point of interest is the low instance of both non-pre-vocalic /r/ and linking /r/ for both the Cook Islands students and New Zealand Maori students. Given the similarity between the Cook Islands and New Zealand Maori languages and cultures, it may be the case that these two communities could be following at least some parallel paths in their avoidance of these ethnic identity markers. The low levels of linking /r/ in both student groups support previous research (Hardman as cited in Gibson forthcoming) on the possible lack of linking /r/ in Maori English and raise the possibility that the absence of linking /r/ may be a potential variable of both New Zealand Maori and Cook Islanders. Their use contrasts with that of other Pasifika students who have a greater amounts of both non-pre-vocalic /r/ and linking /r/. These differences do not reach, however, levels of statistical significance (non-pre-vocalic /r/, chi-square Fisher Exact Test =.10, linking /r/ Fisher Exact Test =.10).

A further point relates to the Tongan data where there appears to be an interesting but tenuous link between non-pre-vocalic /r/ and linking /r/. The students have a relatively high incidence of non-pre-vocalic /r/ (8.1 per cent) but show little evidence of linking /r/ (2.9 per cent). Thus it appears that the Pasifika communities may be splintering in slightly different directions in an attempt to find their own voice, perhaps one that differs from mainstream NZE. Or it may simply be that given the lower levels of English proficiency in the Tongan community, the students have not yet developed a variety of English to call their own. Given that these results are based on reading passages containing only a few tokens, the findings at this stage merely represent a point of interest.

So what is the origin of the non-pre-vocalic /r/? One possibility is global influences through various media. American movies, television shows and music are now widely available in New Zealand. Global music is performed by local musicians who transform it for the local community. The effect that this has on the speech of the singers, as well as on the speech of those who sing along, is relatively unknown (see Coddington 2004 for details). In order

to determine if there is an explicit link between /r/ in coda position and American English, we examined the responses of the students on their preferred variety of speaking. The findings showed no obvious relationship between wanting to sound American and /r/ in coda position. Of those with non-pre-vocalic /r/ use, a slightly lower percentage wished to sound American (4/9 or 44 per cent, see Table 8). A similar trend (but one based on very limited data) was observed between those wishing to sound American and linking /r/ (2/9 or 22 per cent per cent) which also suggests that the use of /r/ in coda position is not associated with the globalization of American English.

There is a potentially interesting trend amongst those wishing to sound like New Zealanders. All 15 of the students who wished to sound like New Zealanders had no evidence of linking /r/ and ten of these students also had no non-pre-vocalic /r/ (see Table 8 for details). The students with non-pre-vocalic /r/ were Tongan (2) and New Zealand Maori (3). The Niuean students are of particular interest as all four Niueans who wished to sound like New Zealanders had no evidence of non-pre-vocalic or linking /r/, while those Niueans who wished to sound like Niueans or Americans had variable use of non-pre-vocalic /r/ and linking /r/. Numbers were smaller for the other students groups, with no observable patterns emerging.

Table 8: Attitudes towards varieties of English and presence of non-pre-vocalic /r/ and linking /r/

Want to sound like	Presence of linking /r/	Presence of non-pre-vocalic /r/	Total
American	2	4	9
New Zealander	0	5	15
Australian	0	1	2
Cook Islander	1	0	5
Niuean	1	2	2
Samoan	2	1	4
Tongan	1	1	3
Total	9	14	40

Conclusion

This paper provides an initial exploration into non-pre-vocalic /r/ and linking /r/ amongst Maori and Pasifika students in a New Zealand context. The findings suggest some evidence of /r/ in non-pre-vocalic position amongst specific varieties of Pasifika Englishes, possibly resulting from a shared solidarity as second generation New Zealanders from the Pacific. The findings

also point to the potential differences across the various varieties of New Zealand Pasifika English and suggest that non-pre-vocalic /r/ could be emerging in some Pasifika varieties of English, but not in others. Of particular interest is the close alignment between the Cooks Islands and New Zealand Maori students in their limited use of both non-pre-vocalic /r/ and linking /r/. The relative absence of linking /r/ may be a feature of both varieties of Maori English. The low levels of linking /r/ amongst the other Pasifika communities also suggest that there may be quantitative differences in the use of linking /r/ in Pakeha and non-Pakeha communities.

There were no observable patterns between wanting to sound American and the use of /r/ in coda position, although there was a notable absence of non-pre-vocalic /r/ amongst those students who wanted to sound like a New Zealander. This could suggest that Maori and Pasifika students who avoid non-pre-vocalic /r/ and linking /r/ may be doing so in an attempt to identify (perhaps erroneously in the case of linking /r/ as mainstream New Zealanders. Alternatively, the use of non-pre-vocalic /r/ and linking /r/ could be associated with the need to identify as other. Such findings need to be interpreted with caution as they are based on the responses from a single question from a small select group of students in one South Auckland school. Further investigation of spoken texts is needed to determine whether similar patterns emerge in conversational data.

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