

Non-Prevocalic /r/ in New Zealand Hip Hop¹

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This paper investigates pronunciation in New Zealand hip hop, specifically the occurrence and distribution of non-prevocalic /r/. It shows that three popular hip hop artists realise /r/ after, and only after, the NURSE vowel. The study aims to stimulate interest in the variety of English that is used by rap artists in New Zealand, and suggests that New Zealand hip hop may exhibit a unique distribution of features combining local speech variants with features of pronunciation borrowed from international rap artists.

1. Pronunciation in Pop/Rock Music

Trudgill (1997 [1983]) pioneered the study of phonological variation in singing with his article 'Acts of Conflicting Identity', which tracked certain features in the singing accents of British pop bands over the course of the 1960s and 1970s. He found that in the earlier records, British singing accents had a high frequency of American features. As time went on, however, the use of these features decreased; a change which coincided with "developments within the world of pop music itself ... a change in the pattern of cultural domination" (p.261), whereby British pop music had developed its own identity.

Simpson's (1999) follow-up to Trudgill's study notes that while the set of American features documented by Trudgill are still used, there are now several models of pop pronunciation to aspire to. Mixtures of both stereotypical American features and stereotypical British features can be heard in nineties Britpop bands such as Oasis. Simpson builds on Trudgill's theoretical position by proposing a three-way motivation of linguistic factors. A singer's pronunciation will be influenced by the speech of the 'model' to which the artist aspires, their own speech, and the speech of their intended audience. Carlsson's (2001) study of 1990s Britpop provides a quantitative analysis of how the movement away from American features continues towards a British singing accent with its own internal variation.

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Very few studies of pronunciation in singing have been carried out in New Zealand. Brooks (1994) analysed forty New Zealand rock songs from the 1960s through to 1993 and found that the history of New Zealand rock echoed that of British pop. The average incidence of non-prevocalic /r/, for instance, dropped off from 60% in the 1960s to 8% in the early 1990s. The decrease of this and other American features corresponds to the burgeoning independence of New Zealand rock music which included a distinctive New Zealand 'sound', both musically and, evidently, linguistically.

Where Brooks considered change in pronunciation over time, Coddington (2003) investigated variability within one singer across various settings and registers. In a study of New Zealand singer-songwriter Anika Moa, Coddington analysed several features, including non-prevocalic /r/, for passages of both singing and speech. She found that /r/ was realised in Moa's singing but not in her speech. Furthermore, for the two albums analysed, there was a dramatic shift in pronunciation from 11% *r*-ful in the first album to less than 1% in the second album. This shift was explained by several factors, including a conscious shift by the artist to display her identity as a Māori New Zealander more overtly as well as a shunning of American influence. The other major factor was that the first album was recorded in America with local session musicians whereas the second album was recorded in New Zealand with fellow New Zealanders. Coddington's research provides further evidence that the accent with which a person sings corresponds to the identity they wish to project.

Coddington (2004) investigated various phonological features across several genres of New Zealand music, excluding hip hop. She found that the singer-songwriter genre had the highest levels non-prevocalic /r/ production. For none of the music styles studied in Coddington's analyses was there any effect of preceding vowel on levels of /r/ realisation.

2. Hip Hop in Aotearoa

“Hey presto, hip-hop is the new pop”²

Over the past few years, hip hop in New Zealand has made a sudden leap into the popular mainstream, while the underground scene has remained vibrant and strong. Fresh talent is emerging in droves and being rapturously embraced by the music-consuming public. One only has to

² Barry, Rebecca (2003, 27 December). The Best Pop Songs of 2003. Retrieved from <http://www.nzherald.co.nz>

look at the results of the 2004 New Zealand Music Awards, where Scribe collected eight awards, to see that hip hop is, in Scribe's own words, 'taking over'. As this strong local hip hop identity develops, we would expect to see an upsurge of local linguistic features in the music and potentially in the speech of those affiliated with the genre.

The research presented in this paper follows on from a small pilot study conducted for an undergraduate paper (Gibson 2002, cited in Bauer and Warren 2004). In that paper, 200 potential non-prevocalic /r/ environments were analysed from five NZ hip hop CDs (none of which were included in this study) and found that non-prevocalic /r/ occurred systematically after the NURSE vowel³ but nowhere else. This finding is interesting when compared to Coddington's (2004) results for other genres of New Zealand music where /r/ occurred in many environments.

Bauer (1986), in his examination of NZE stated that there was no occurrence of non-prevocalic /r/ in NZE apart from a small area in the south of the South Island. The /r/ accent there is generally attributed to high levels of Scottish settlement in that area. It should be noted that there is very little contact between Southland and the hip hop scene, and it can be safely assumed that the rhoticity in hip hop pronunciation is not related to that found in Southland.

The purpose of the present study is to conduct a more thorough quantitative analysis of non-prevocalic /r/ in New Zealand hip hop pronunciation, the hypothesis being that non-prevocalic /r/ will occur after NURSE but nowhere else.

3. Methodology

3.1 Materials

Three New Zealand hip hop albums were chosen for analysis, based on the fact that they were the three nominees for the Best Urban/Hip Hop Album at the New Zealand Music Awards for 2004. Two other factors coincided fortuitously to reinforce this choice: firstly, all three artists are New Zealand born Samoan males; secondly, the nominees are all individual rap artists, which avoids the issue of having to decipher which artist is which when analysing a group. The three albums analysed were:

1. King Kapisi – 2nd Round Testament

³ The vowel names used throughout this paper are based on Wells (1982).

2. Mareko – White Sunday
3. Scribe – The Crusader

The recordings were obtained on compact disc and were converted to .wav files. These files were then analysed using Praat, a speech analysis tool freely available on the internet⁴. **The main advantage of using Praat was the ability to select and repeatedly listen to small sections of audio in order to isolate any given syllable, making analysis quicker and more accurate.**

3.2 Procedure

In order to provide a quantitative analysis of the prevalence of non-prevocalic /r/ in NZ hip hop pronunciation, a stringent search for all relevant environments was performed. There is the potential for a non-prevocalic /r/ to be realised in any environment where an orthographic *r* follows a vowel and precedes a consonant or pause. **King Kapisi's album contained a transcript of the lyrics, so the search for possible non-prevocalic /r/ environments was made both aurally and visually. For Mareko and Scribe's albums, however, no such transcript could be found. For this reason, Mareko and Scribe's albums were analysed by ear. This meant first understanding each line of the rap, and then searching through it for potential /r/s. There were several lines where I could not decipher the rap (roughly one phrase per song) and these were left out of the analysis.**

Several songs included guest rap artists. All sections of rap which were not performed by the three artists under consideration were excluded from the analysis.

Repeated sections (e.g. choruses, intro/outro sections) were only coded on their first occurrence as it was found that such sections are generally repeated with exactly the same pronunciation.

For each potential non-prevocalic /r/ environment, an auditory judgement was made⁶ as to whether the /r/ was realised. The distinction was binary, with the /r/ category including both r-coloured vowels and any degree of

⁴ <http://www.fon.hum.uva.nl/praat>

⁵ A non-prevocalic /r/ is an /r/ which is pronounced before a consonant or a pause (for example, the standard American pronunciation of *start* /start/ or *car* /kar/).

⁶ Depending on the background music for a given song, it was sometimes possible to see the vowel formants, but acoustic analysis is generally difficult when dealing with the medium of recorded music.

consonantal approximant. The analysis also recorded the vowel preceding the /r/.

4. Results

A total of 1453 environments were analysed where a non-prevocalic /r/ could potentially have occurred. Of these, 589 tokens were from King Kapsi's album (twelve songs), 543 were from Mareko's album (sixteen songs) and 321 tokens came from Scribe's album (ten songs).

The potential /r/ was realised in 231 (16%) of the 1453 tokens analysed. Almost all of the /r/s that were realised were preceded by the NURSE vowel. There were 237 tokens where NURSE was the preceding vowel; /r/ was pronounced in 223 (94%) of these. Only 8 /r/s (5 of which were after schwa) were realised after other vowels, out of a possible 1216 (less than 0.01%). This result is shown below in Figure 1. A chi-square test was performed and

found this result to be highly significant (p < .0001).

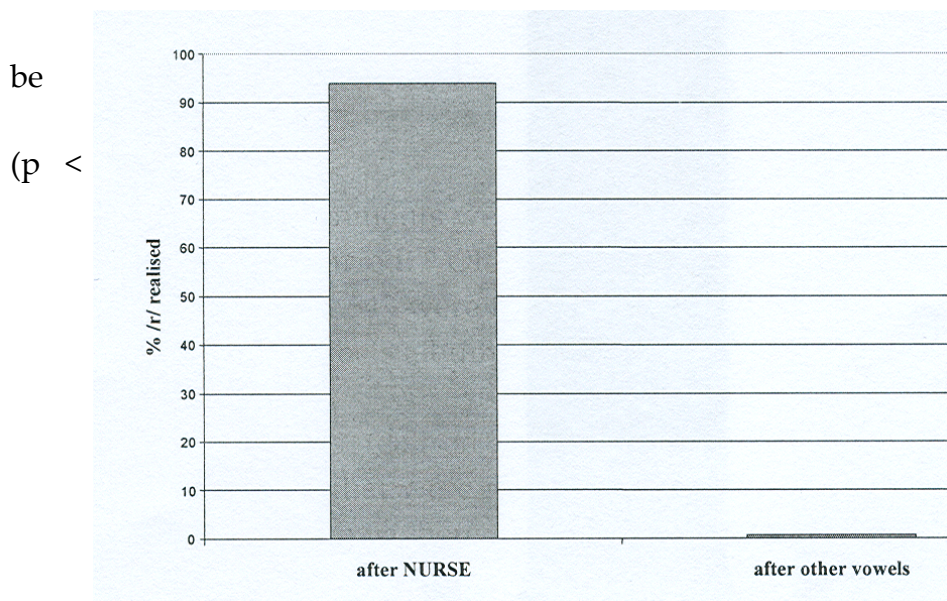


Figure 1. Percentage of /r/s realised in relation to preceding vowel.

5. Discussion

The results support the hypothesis that non-prevocalic /r/ occurs after NURSE vowel and nowhere else in the rap pronunciation of the three New Zealand-born Samoan rap-artists that were analysed. The results were very robust and were in line with the results of the 2002 pilot study which used several different artists. Now that this feature has been established, it raises many questions for further research.

One issue of particular interest is whether these artists use this feature in their speech, and if so, when and where do they use it? Also, is there an effect of ethnic identification, or is this a linguistic grouping based solely on a musical/popular culture affiliation?

Another important follow-up study would be to find out whether the ‘model’ American hip hop accent has a preference for non-prevocalic /r/ after NURSE. As far as I am aware, there are no quantitative studies on non-prevocalic /r/ for American hip hop pronunciation. If this pattern of partial rhoticity is unique to New Zealand hip hop it is particularly interesting, and may suggest that the accent is adopting attributes of both global and local pronunciation.

Perhaps the adoption of a systematic partial rhoticity in New Zealand rap is a kind of half-way point between NZE non-rhoticity and American rhoticity. As Wells (1982: 221) notes, it is not infrequent for varieties to use /r/ after NURSE and nowhere else. This may be explained by the articulatory similarity between the two sounds.

Aside from the quantitative study of non-prevocalic /r/, several other features became noticeable in the course of this research. These are listed below:

- A low rate of linking /r/ (e.g. no /r/ in *your own*).
- The frequent occurrence of intrusive /w/ in place of /l/ (*style is* as /sta:wɪz/).
- The realisation of $\text{~}\square\text{~}$ as $\text{~}\square\text{~}$ and $\text{~}\square\text{~}$ as $\text{~}\square\text{~}$... $\text{~}\square\text{~}$ -fronting tended to occur in word-final position *birth* as $\text{~}\square\text{:}\square\text{~}$ whereas $\text{~}\square\text{~}$ was more often realised as /d/ in word-initial or word-medial positions (*the* as /də/).
- All three artists sometimes reduced /pr/ to /p/ and /kr/ to /k/ (e.g. *crew* as /ku:/).
- BATH words were often pronounced with /æ/, with great variation between the artists. /æ/ was used most by Scribe and least by Mareko.
- PRICE vowel was often realised as /a:/ not /ai/ (*style is* as /sta:wɪz/).
- /j/ was often dropped in words like “news” (/nu:z/).

Some of the above features are clearly influenced by American pronunciation (e.g. BATH as /æ/). Others features may suggest that Māori English⁷ is

⁷ At present, very little work has been done on the English of NZ born Pacific Islanders or the differences between NZ Pacific Island English and Māori English, but it is likely that the two varieties share several features.

having an effect, such as the reduced use of linking /r/, which has been recognised as a feature of Māori English (Hardman, 1997: 78). Additionally, it should be noted that singing and rapping are activities very different from speech and that certain pronunciations may be more indicative of the actual nature of the physical activity than of a typical sociolinguistic variable. For example, the loss of linking /r/ may be a result of the rhythmic nature of rap, rather than a sociolinguistic marker of identity. Finally, there are certain variables which could be genuine innovations within the local genre, such as the reduction of some initial consonant clusters.

Hip hop in Aotearoa has blossomed in recent years, and with this has blossomed a strength of local identity. Previous studies on pronunciation in singing have shown that stronger local identity encourages the use of more features from the local accent. If there is a desire to be part of both the global (American driven) hip hop community and a drive to project a unique local identity, there may be an observable mixing of linguistic elements from both of these influences. This appears to be happening with the adoption of partial rhoticity in New Zealand hip hop. With a detailed description of hip hop pronunciation in New Zealand along with similar descriptions for other varieties of hip hop, we will have a powerful tool for analysing the linguistic representation of cultural identity in the subgroups of a global community.

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Discography

King Kapisi 2003. 2nd Round Testament, Festival Mushroom Records.

Mareko 2003. White Sunday, Universal Records.

Scribe 2003. The Crusader, Festival Mushroom Records.