Stopping and Fronting in New Zealand Pasifika English

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1 Introduction

The history of New Zealand English, 9the most recent of the established post-colonial varieties, is one of contact. The 19th century origins of the variety arose from contact both among the English dialects brought by colonial settlers from Britain and with the Māori language of the indigenous Polynesian people. The mixing of dialects from different parts of the British Isles resulted in the eventually distinctive character of mainstream New Zealand English as spoken by Pakeha, the Anglo descendants of the European settlers. Over a century of contact between English and the Māori language resulted in severe erosion of the presence and usage of Māori, to the extent that the language has been threatened for some decades and remains so despite strenuous and partially successful maintenance efforts. The other fruit of contact was the emergence of a Māori ethnolect of English. As Māori people increasingly adopted English as their language, they produced a variety of English that was influenced by the substrate of their own Polynesian language. The nature of this Polynesian-influenced ethnic dialect has been researched and characterized in the past decade by, e.g., Bell (2000), Holmes (1997), and Stubbe and Holmes (2000).

While the origins of Māori Vernacular English lie in 19th century colonial contact, the second half of the 20th century saw a wave of post-colonial contact between English and Polynesian languages in New Zealand. The islands of the southwest Pacific had been discovered by the Europeans during the late 18th century, particularly through the voyages of Captain James Cook. Most of the islands were largely annexed and governed by the European colonial powers from the mid-nineteenth century, mainly by Britain, although France and Germany also took a slice. The German colonies were possessed by Britain during the First World War. The first half of the 20th century was characterized by a period of colonial governance of British Polynesian islands from New Zealand. The second half of the century saw the Pasifika peoples of the southwest Pacific islands migrate from their home islands to New Zealand, which was seen as the place of development and advancement within the region. From the 1950s onwards, the languages of islands such as the Cook Islands, Samoa, Tonga and Niue were brought to New Zealand and thus into contact with the English spoken in New Zealand.

This migration created a sociopolitical/sociolinguistic situation that was a familiar one internationally in the years after the Second World War, whereby immigrant labor moved from a less advantaged to a more advantaged country to provide the labor force necessary to that country's development. Pasifika workers tended to form an under-class similar to cross-national "guest workers" in Europe. The communities now number over 200,000 people in New Zealand.

As the Pasifika peoples settled and raised families, the parents recognized English as the language of advancement for their children. English began to be increasingly used at the expense of the Pasifika language, with a diglossic relation developing between English as the "High" or public code and the Pasifika language as the "Low" or home code. By the third generation there has been a strong shift away from the Pasifika language and towards the use of English (Taumoefolau et al. 2002). As it had been for Māori, the contact situation produced distinctive-sounding varieties of English. It is the specifics of the distinctiveness of Pasifika English that this study investigates.

2 Theoretical Approaches to Language Contact

Pasifika English is the result of language contact. Contact linguistics has grown from the pioneering work of Weinreich (1953) through Thomason & Kaufmann's examination (1988) of contact in largely historical and non-western situations. The approach was further developed and focused in overview and introductory texts by Thomason (2001) and Winford (2003). The premise of contact linguistics is that the language contact situation results in "imperfect learning" of the target language by learners from another language background. Individual learners apply second language acquisition strategies such as transfer, generalization and simplification to learning the

L2. These strategies result in individual "interlanguages" (Selinker 1972) whose features lie between those of the original and the target languages. The learners' production of the target language has therefore been affected by the features of the substrate or source language. In a situation where whole groups are learning a new language after immigration to a host country, a group interlanguage may develop with commonalities shared across the new speakers. The transfer of L1 features to the L2 creates a distinctive variety of the dominant language influenced by the minority language features. This may solidify into an ethnic dialect or ethnolect. The models propose mechanisms by which such transfer may operate, the social conditions that contribute to it, and the requirements that need to be met to demonstrate that a feature has a contact origin.

A recent attempt to model the development of post-colonial Englishes generally around the world is Schneider's "Dynamic Model" (2003, 2007). Schneider distinguishes five phases in the historical development of a colonial English. The dates here represent our estimation of the period of the particular developmental phase in the history of New Zealand English:

1. Foundation: circa 1840-80 in New Zealand
2. Exonormative stabilization: 1870-1940
3. Nativization: 1900-85
4. Endonormative stabilization: 1975-present
5. Differentiation: 1985-present

Most of Schneider's model deals with the situation of contact between settler and indigenous languages. In New Zealand Phases 1-3 include the contact period that created Pakeha English and Māori Vernacular English, mainly during the 19th century. However, Phase 5, that of differentiation, is the stage in which a dialect such as NZE, after a period of consolidation and homogenization, diversifies again under the influence of immigration which brings other language backgrounds into the country. Rather than the "substrates" of the earlier contact, these later immigrant languages can be regarded as furnishing "adstrates" which may influence the variety that has already established itself through the earlier contact processes. It is this phase that sees the origin and growth of Pasifika Englishes in New Zealand. Among the common linguistic outcomes in adstrate-influenced varieties of English are the stopping of the DH and TH sounds, and it is these that we examine in New Zealand Pasifika English.

3 The Study: Linguistic Features

Two of the features that we hear as present in the developing Pasifika Englishes are the stopping of the interdental fricative /ð/ as in the, those (the variable DH), and the stopping or fronting of /θ/ as in think, both (the variable TH). Table 1 shows the variants of (DH), ranging from full fricative [ð], through affrication [dð] to full stopping [d]. For (TH), as well as the potential for affrication or stopping, there is a further variant in which the sound may be fronted from the interdental [θ] to the labiodental [f] (Table 1).

None of the variants of (DH) are present in the Pasifika adstrate languages, which do not have voiced stops. The adstrate languages do have voiceless stops and fricatives, including the [t] and [f] which function as variants of (TH), but the voiceless fricative and affricate forms are again absent from the adstrate. Although [t] is present in the Pasifika adstrates, it is unaspirated there and therefore phonetically quite distant from the normal English realization—to the extent that the absence of aspiration tends to lead to English speakers interpreting it as a [d] rather than a [t].

(DH) as in *the, their, that*	**Variants:**	
	stop	d *
	affricate	dð *
	fricative	ð *

(TH) as in *three, both, month*	**Variants:**	
	stop	t
	affricate	tθ *
	fricative	θ *
	fronting	f

Table 1: Linguistic variables and their realizations (* = not in Pasifika substrate)

As well as our own impressionistic encounters with the varieties, the likelihood that these variables are operating in Pasifika Englishes is supported by some recent research:

- Starks and her collaborators, in the only substantial prior studies of Pasifika Englishes, found (DH) stopping in school children's performance of a reading passage, but only at low levels (5%). Much more frequent was (TH) fronting at 40% (Starks and Reffell 2006; Starks, Christie & Thompson 2007).

- Our own studies of Pasifika English as a performed variety in the animated Pasifika television comedy *bro'Town* found (DH) stopping as high as 80% for a first-generation Samoan character and L2 speaker, and 8 and 50% for his children, who are L1 speakers. TH fronting reaches 95% for the L2 speaker, and 55% and 85% for L1 speakers (Gibson & Bell 2006).

- Bell's case study of (DH) and (TH) in Māori Vernacular English (2000) found that affrication and stopping were much more likely in Māori than Pakeha English, which can be attributed to the Polynesian-language substrate.

- Finally, investigating the presence of (TH) fronting in New Zealand English, two studies of young Pakeha speakers found fronting of (TH) to [f] (Campbell & Gordon 1996; Wood 2003).

4 Design and Method

Data for our analysis comes from interviews recorded as part of Manukau Languages Project (Taumoefolau et al. 2002). A total of 120 interviews were conducted with members of four ethnic groups (Samoan, Tongan, Niuean, Cook Islands) in Manukau, Auckland, New Zealand. Participants responded to a 27-page questionnaire focusing on language maintenance and shift. Detailed data was elicited on demographics, family, upbringing, language proficiency, usage and attitudes. The interviews were fairly formal and information-oriented in style, being intended to survey the attitudes and opinions of the informants rather than to elicit relaxed conversational speech. The database is therefore not optimal for the use to which we put it here, that of identifying characteristics of a vernacular variety.

The interviews were conducted in the language of the informant's choice. A total of 41 of the 120 interviews took place in English, mainly with younger speakers (aged 15-25). Interviews averaged 1-1½ hours long, and the present analysis used half-hour excerpts from English-language interviews with five young Samoans and five young Niueans.

4.1 (DH)

All word-initial instances of (DH) were analyzed (as in *the, their, that*). Word-medial (DH) was found not to vary, being consistently realized as [ð], and so was excluded from the analysis. A combination of acoustic and impressionistic analysis techniques was applied, viewing waveforms when necessary.

Both authors coded the data auditorily, with a random selection of about 10 tokens per speaker being coded (blind) by both authors in order to ensure consistency, which indicated there was nearly full agreement between the coders. Realizations were gradient between full frication and full stopping, so it was necessary to set parameters for discrete coding of tokens. A visible closure and burst were required for categorization as a stop [d]. If there was no evidence of closure, the token was coded as a fricative [ð], and in cases where there was clear evidence of a stop as well as audible frication after it, the token was coded as an affricate [dð].

The frequency of the different variants of DH is affected by several factors in the linguistic environment. The preceding phonetic environment, the degree of stress on the word in which the variable occurs, and the particular lexical item may all influence the pronunciation. These are examined in our analysis below.

4.2 (TH)

All instances of (TH) were analyzed (as in three, both, month). Realizations were coded into four categories: [θ] for the dental fricative, [f] for labiodental fricatives, [t] for stops (which includes some dental stops as well as alveolar) and [tθ] for affricates. The same combination of impressionistic and acoustic analysis as described above for (DH) was used to classify the (TH) tokens. The linguistic factors coded were preceding and following phonetic environment, stress, syllable position and lexical item. The lexical item with was excluded from the analysis below due to the uncertain phonemic status of the *th*.

5 Results

5.1 (DH)

A total of 565 instances of initial (DH) were coded. About a quarter of these were excluded from the analysis because of assimilation effects (preceded by a homorganic stop), elision, background noise, etc. Of the 422 remaining tokens, 215 (51%) were realized as [ð], 138 (33%) as [d], and 69 (16%) as [dð]. Figure 1 shows these results, with stop and affricate realizations grouped. Figure 2 shows the effect of preceding environment and stress on the realization of (DH), with [d] and [dð] grouped together.

Preceding environments have been grouped into consonants (C), vowels (V) and pauses (#), when tokens occur at the beginning of an utterance or after a hesitation. Stress is grouped by unstressed (0) or stressed (1), which includes both primary and secondary stress.

Preceding environment strongly affects whether or not /ð/ will be realized as /d/ or /dð/, with stopping favoured after pauses and disfavoured after vowels. /ð/ is also affected by stress, with the stopped variants more likely to occur in stressed than unstressed syllables (fewer tokens are presented in Figure 2 than Figure 1 because of the accidental omission of environment coding for two speakers). The combination of a post-pausal and stressed environment therefore strongly favored stopping of (DH) (nearly 90%), as was very obvious as we conducted the auditory coding of tokens. The results did not show any structured variation according to specific lexical items.

We found that neither ethnicity nor sex of the speaker greatly affected the proportion of stopping. Niuean and Samoan speakers had stopped variants 49% and 50% of the time, respectively. Females used stopped variants 54% of the time, rather more than males (44%).
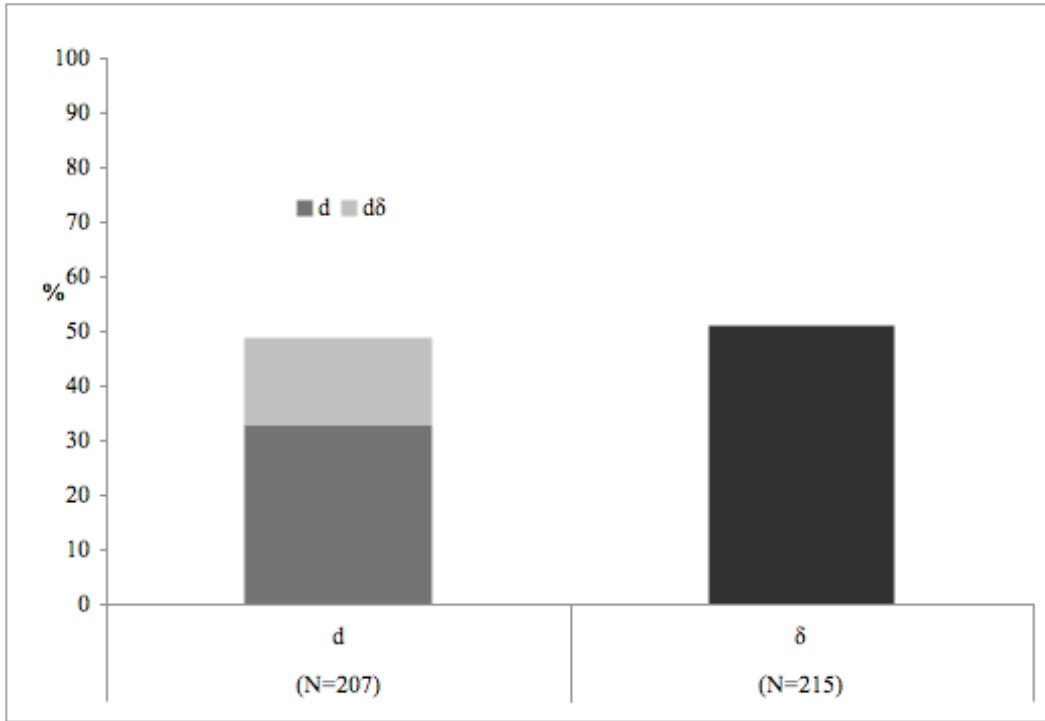
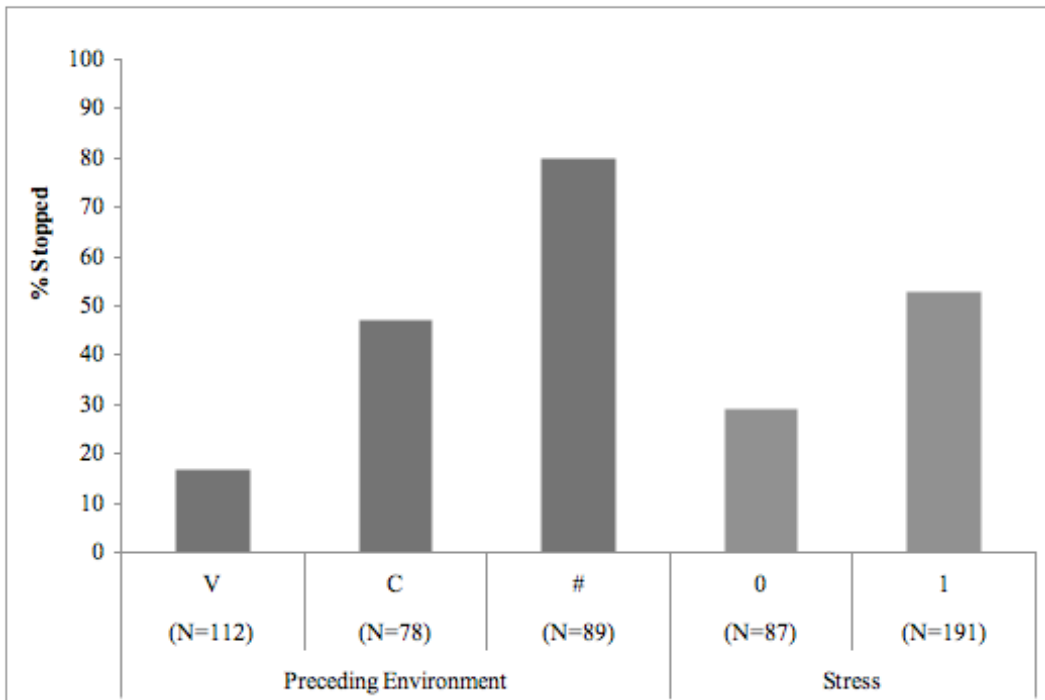\   Figure 1. Realization of (DH) tokens

Figure 2. Percentage of (DH) realized as [d] or [dð] according to preceding environment and stress
(0 = unstressed, 1 = stressed)

5.2 (TH)

A total of 242 instances of (TH) were analyzed. Some 30 tokens were excluded from analysis for the same reasons as with (DH) above, and some minor categories of realizations were subsumed under other variants. Figure 3 shows the results grouped in the same way as for (DH). 133 (62%) tokens were realized as [θ], 44 (21%) as [f], 27 as [tθ] and 15 as [t], (17% combined).
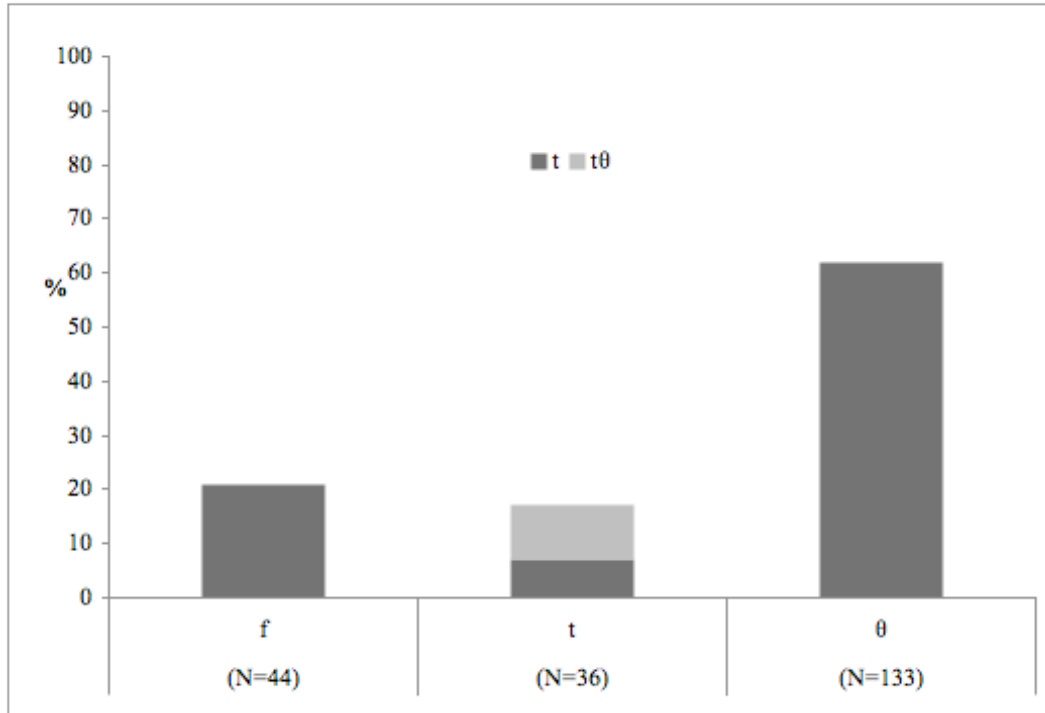

Figure 3. Realization of (TH) tokens

The place of occurrence of (TH) in syllable onset or syllable coda had a strong effect on its realization (Figure 4). In syllable onset position, 21% of (TH) were realized as [t] or [tθ] and only 6% as [f]. In coda position, however, 46% of tokens were realized as [f] while only 9% were realized as [t] or [tθ]. In coda position, then, as many tokens were realized with the fronted [f] as with the standard variant [θ]. There was no structured effect on the realization of TH according to stress, preceding or following environment or lexical item.
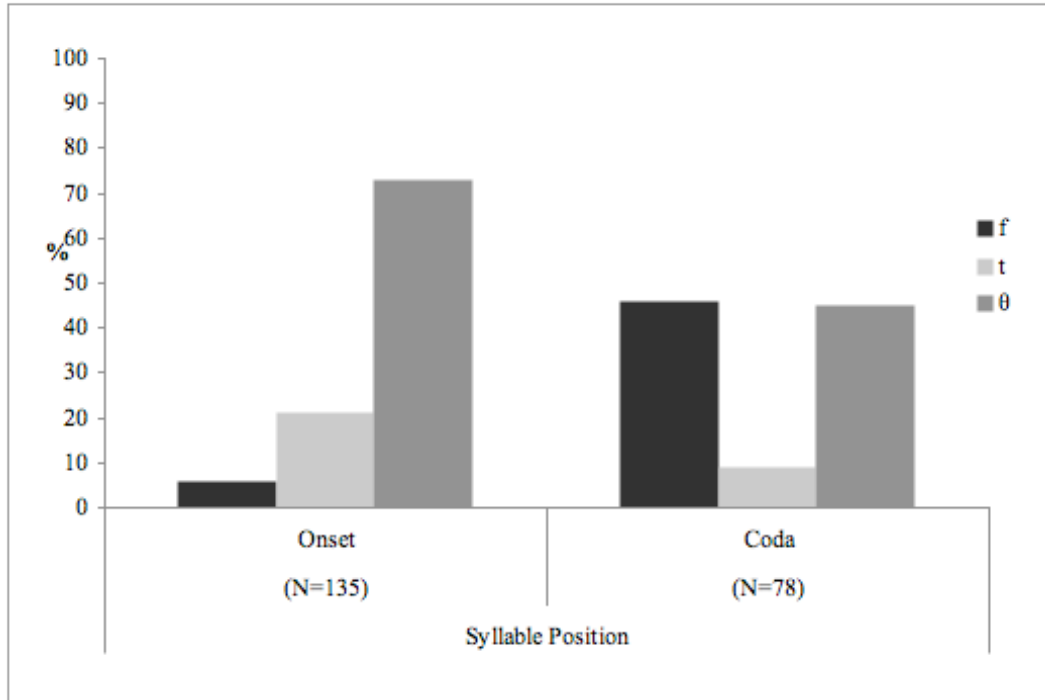
Figure 4. Realization of (TH) according to syllable position

There were differences between Niuean and Samoan speakers for the (TH) variable. Table 2 shows that in general Niuean speakers produced more [f] and less [t] than Samoan speakers ([t] and [tθ] are grouped). Samoan speakers produce [t] in both onset and coda positions, while Niueans only produce [t] in onset.

Both groups produce [f] mainly in coda position, but this rate is particularly high for Niuean speakers, with 57% of (TH) in coda being realized as [f]. No patterns of variation according to speaker sex were apparent for this variable.

Syllable Position	Ethnicity	[f]	[t]	[θ]	N
Onset	Niuean	8%	17%	75%	76
	Samoan	3%	27%	69%	59
Coda	Niuean	57%	0%	43%	49
	Samoan	28%	24%	48%	29
N		44	36	133	213

Table 2. Realization of (TH) by syllable position and ethnicity ([t] and [tθ] are grouped as [t])

6 A Case Study: Tai

To look in more depth at how Pasifika English is manifested in the communities and their members, we took one particular speaker as a case study. "Tai" is an 18-year-old Samoan man. He was born in New Zealand rather than the islands; this distinction between being island-born or NZ-born is a very salient one in the community, with expectations of considerable cultural and linguistic divergence between one group and the other. Nevertheless, Tai's upbringing and background have been strongly Samoan. He characterizes the household he grew up in as "very Samoan", and says his current household remains so. He mixes with other Samoans outside the home every day, including being at Samoan church three times a week. In the Pasifika communities the churches are the main site of public language usage and maintenance, and the

focus of much community interaction. There is frequent coming-and-going within his family between New Zealand and the islands, constantly refreshing the cultural and linguistic inheritance.

Samoan was the language he learned first, and he remains largely fluent in it. According to his own self-assessment on 5-point scales for productive and receptive competence, he has full comprehension of Samoan but slightly lower speaking ability. English was his second language. He began speaking it at age 4 and is fully fluent. Both languages are used in equally in his home.

We quantified Tai's production of the (DH) and (TH) variables. The following passage concerning language use in the home when he was growing up contains a high number of (DH) and (TH) occurrences (bolded), most of which are stopped or fronted:

> **Th**at was like for bo**th** my parents, like speak only Samoan to bo**th** my parents. But **th**en um, um **th**en my Mum, **th**en my Mum, **th**en we started speaking Engl- when we got older, **th**is was when we were young, we were allow- only allowed to speak Samoan when we were young but when we got older, like **th**ey understood, my Mum understood, we can speak um, like we can speak English and Samoan to her, she will understand. But not to **th**e Dad, not to **th**e old man. Only Samoan to **th**e old man.

- In Tai's speech, for (DH) following a pause, 17/18 tokens are fully stopped

- For TH in onsets, 6/21 tokens are stopped

- 3/3 TH tokens are fronted in syllable codas

As well as (DH) and (TH), for Tai we also coded more informally a number of other variables that seem salient in Pasifika varieties:

- Non-prevocalic /r/ (as in *girl, word*) was realized in 5 of the 17 tokens where /r/ occurred after the NURSE vowel. Since New Zealand English is non-rhotic (with one diminishing regional exception, at the opposite end of the country), this can be a very noticeable feature for listeners

- Linking /r/ as in *here and there* was almost entirely absent from Tai's speech, with 20/21 potential tokens having no linking /r/. Strikingly, most of these (16) even lacked a glottal stop, meaning that they formed uninterrupted vowel sequences. It seems relevant that the adstrate Polynesian languages have an open-syllable structure and tolerate clusters of several vowels on end. The absence of r-sandhi may be related to a more syllable timed rhythm, which has been attested for Māori English (e.g. Szakay 2006) and is also likely to be a feature of Pasifika English.

- Other sandhi absences, e.g. *a English person*

- GOAT vowel fronted and rounded (as in *know*)

- GOOSE vowel fronted (as in *through*)

Tai, then, sounds like a Pasifika speaker, and the analysis of his production of both (DH) and (TH) and other features supports the basis of this perception. It is likely that as use and facility in Samoan has decreased for speakers such as this, the distinctive ethnolect of English generated by contact with the adstrate language comes to bear the identity value that was formerly invested in the Pasifika language.

7 Conclusions

Our study has found that stopped forms of (DH) and stopped or fronted forms of (TH) are frequent among these speakers. These variables are known to commonly produce the stopped variants in non-native or ethnolectal varieties around the world, and these forms are likely to be promoted by

the absence of the interdental fricative forms in most of the world's languages (including the Polynesian adstrate languages in New Zealand). In longer stretches of speech from these speakers, we can find heavy clusters of the vernacular (DH) and (TH) variants, alongside co-occurrence with other ethnically marked features.

The variegation that is occurring in New Zealand English, particularly through Pasifika features, is the main manifestation of the re-differentiation process that Schneider's Dynamic Model identifies as typical of the later development of post-colonial Englishes. We are here apparently observing the "acquisition of native speakers by a dialect" as Pasifika English has moved from the status of an unstable individual interlanguage to a group variety influenced by the features of the adstrate Polynesian languages. Although the present study covers only the younger generation, our analysis of a middle-aged speaker in the animated comedy *bro'Town* indicates that generational differences are likely here.

In the wider compass of New Zealand English, the similarities and differences between Pasifika English and Māori English have not yet been systematically explored. The two varieties seem to share many features carried over from the Polynesian substrate languages, just as Māori and Pasifika identities share some similarities in their social and even geographical positioning in New Zealand culture. It is the trajectory of these identities that will affect the development of the associated ethnolects. Māori and Pasifika varieties of English in New Zealand may have become a desirable target not just for Pasifika and Māori people, but also for some Pakeha youth subcultures. This makes the character and spread of these varieties particularly important in the overall development of New Zealand English.

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